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BILL SPONSORSHIP IN CONGRESS

A Dissertation

Presented to

The Faculty of the Department

of Political Science

University of Houston

In Partial Fulfillment

Of the Requirements for the Degree of

Doctor of Philosophy

By

Philip D. Waggoner

August, 2018

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ABSTRACT

Bill sponsorship in the American Congress is an outlet for individual legislators to stake out policy positions and set the legislative agenda. This tool is freely available for all legislators to use, whether in the majority or minority party, freshman or senior, Republican or Democrat, male or female. Further, there are relatively few limitations on topics as well as frequency of sponsorship; legislators are free to sponsor as many bills on any topics they wish while serving in office. To date, the scholarly literature has focused almost exclusively on the agenda setting or position taking value of bill sponsorship. Yet, in light of the pressures, constraints, and opportunity cost structure facing legislators every day, I suggest such a widely used tool is leveraged by legislators to satisfy many different goals and to respond to many other pressures, beyond agenda setting and position taking. I expect bill sponsorship to be a strategically and uniquely leveraged tool by legislators in three realms: representation, careerism, and issue ownership and trespassing. To support this argument, I bring to bear numerous theoretical expectations, data sources, and statistical methods. Broadly, I find that legislators use bill sponsorship to indirectly represent constituents, focusing on issues they assume constituents should favor, seen through employment patterns in districts and variance in issue ownership guiding issue focus dependent on the party of the elected legislator. I also find that heritable traits, such as personality, influence the degrees to which legislators decide to align their sponsorship focus with their committee focus to become specialists. Some select this path of careerism, while others do not. Zooming out, I find broadly that bill sponsorship is a valuable form of behavior that deepens an understanding of Congressional behavior in addition to position taking and agenda setting.

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DEDICATION

I dedicate this work to my loves, Becky and Penn (and 0.5).

CHAPTER 1

Bill Sponsorship in Congress

To date, Congressional bill sponsorship has most often been characterized as agenda setting. A proposal to shift the status quo is offered in the form of a bill, and then the measure is considered for advancement in the legislative process. Some recent work has widened this definition, suggesting it offers legislators an opportunity to stake out positions on specific issues (Rocca and Gordon 2010). Within the realm of bill sponsorship as position taking, some have found that sponsorship can offer opportunities to highlight subgroup agendas within the chamber, such as gender (Barnello and Bratton 2007), race (Wilson 2010), and even within delegations (Schiller 2000).

Yet, while the findings to date on bill sponsorship have deepened an understanding of both individual legislators' patterns of policy making (Schiller 1995) as well as historical patterns of behavior and representation (Finocchiaro and MacKenzie 2018), there are many other constraints on legislators as they act in a competitive, cross-pressured context every day they serve in office. For example, legislators are tasked with representing unique constituencies (Miler 2010), which are often at odds at the narrower *sub*constituency level (Bishin 2009). Further, legislators have unique career aspirations that may extend beyond representational responsibilities to their constituents (Fenno 1978). And importantly, legislators in the American Congressional context are members of political parties, each with unique goals and approaches to governing and representing constituents. In sum, there are many pressures, motivations, and influences constraining legislators in Congress. Taken together, given the uniqueness of bill sponsorship as a relatively low cost avenue available to all legislators to bring as many issues as they wish

before the chamber, I suggest much more can be learned about Congressional behavior when the scope to which bill sponsorship has been considered to date is expanded.

This dissertation reflects an effort to deepen an understanding of Congressional behavior by offering a wider view of bill sponsorship. In the chapters that follow, I endeavor to unpack the process by which some legislators use bill sponsorship more than others to achieve and reflect unique goals. To do so, launching from the act of sponsoring individual bills, three substantive chapters leverage a variety of statistical techniques, data sources, and theoretical contexts to explore three different realms of legislative behavior: representation and responsiveness; careerism and patterns of issue specialization; and finally, issue ownership and trespassing.

Focusing on the modern Congress (104th to current), a key contribution of this dissertation is a demonstration that bill sponsorship reflects and explains valuable nuance in legislative behavior beyond position taking and agenda setting. As all legislators are free to sponsor bills, whether Republican or Democrat, male or female, freshman or senior, committee chair or rank-and-file member, widening the conception of bill sponsorship as a strategic policy tool offers a more thorough understanding of Congressional behavior.

In chapter 2, I begin with an exploration of whether legislators sponsor bills as representational tools to respond to the issue-specific preferences of their unique constituencies. I begin from the extant findings that bill sponsorship is a valuable form of legislative activity in which all legislators are free to signal priorities, stake out positions, and influence legislative agendas. However, decisions to hone in on specific issues have been mostly overlooked, resulting in drivers of issue-specific sponsorship remaining

unclear. A reasonable place to look for drivers is constituent preferences, given the representational responsibilities underlying most legislative behavior. To address this question, I leverage advances in opinion estimation to generate a new fine-grained measure of constituent issue preferences at the district level. By keeping the focus on issues, this approach is preferable to other measures of constituent preferences, in that it assumes nothing about constituents' ideology. Through numerous tests across several issues spanning the 109th – 113th Congresses, I find a largely indirect effect of preferences on sponsorship through employment proxies, yet no consistent direct impact from constituents, opposite expectations of the delegate model of representation. Essentially, this chapter concludes that sponsorship may be used for representation and responsiveness, though less directly than expected by the delegate model, where issue specific preferences should precede issue-specific responsiveness. I revisit the variance representational patterns in Chapter 4.

In chapter 3, I shift to the chamber. If bill sponsorship acts mostly as an indirect representational tool, are legislators using bill sponsorship to develop as specialists within the chamber? Some legislators choose to actively focus time, resources, and effort to specialize in a single issue area, while others do not. To date, this distinction is not fully understood. I offer a theory explaining legislators' choices regarding decisions to pursue policy specialization in specific issue areas. Through a variety of statistical techniques and an original measure of issue specialization over the 104th – 113th Congresses, I demonstrate that legislators decide whether policy specialization is worth pursuing as a function of their unique personality traits. While party leaders control *access* to specialization, legislators vary widely in deciding whether to adapt to their unique

committee contexts and actively specialize in the related issue area. Further, specialization-related behavior is not dependent on issues themselves, resulting in patterns holding across substantive and non-substantive issue areas alike. Finally, issues comprising policy work and committee jurisdictions must be in alignment for the legislator to be considered a specialist in the related issue.

Finally, in chapter 4, I shift to the nexus between the electoral environment and the chamber environment to look for patterns of indirect representation through broad alignment of legislators and constituents on broad sets of issues, rather than a specific issue-by-issue basis, in light of the null findings in this regard in chapter 2. I begin from the recent evidence uncovered of Democrats being more likely to focus on Republican issues than Republicans on Democrats' issues on the campaign trail, as well as Republicans' strategy of consolidating policy and rhetorical effort towards their more ideologically homogenous base of support (see, e.g., Grossmann and Hopkins 2016). In this chapter, I am interested in whether these patterns of issue ownership among Republicans and issue trespassing among Democrats occur after the election in the policy representation of the candidate-turned-legislator. To do so, I begin by offering two new measures of partisan issue priorities (PIP) and partisan issue trespassing (PIT), which tap bill sponsorship portfolios to capture the degrees to which legislators prioritize their parties' owned issues or intentionally trespass in their policy decisions. With measures in hand, I leverage a series of regression discontinuity designs to assess whether districts receive different expressions of policy representation dependent on the party of the winning candidate. I find that patterns of variance in ownership do occur in office, where districts electing Republicans are more likely to receive greater focus on owned issues

compared to Democratic districts, which are more likely to receive greater focus on non-owned issues (including Republican-owned, Democratic-owned, and non-owned issues). Differences are most pronounced for majority party and electorally threatened members. However, attempts to intentionally trespass on the opposing party's issues do not appear to continue once candidates become legislators, suggesting this is a strategy beholden to the campaign trail.

In conclusion, chapter 5 offers a tying up of the findings in this dissertation, ultimately pointing to the value of a widened view of bill sponsorship in a quest for a fuller understanding of Congressional behavior. The findings throughout, suggest that legislators use bill sponsorship variably, with some seeing it as valuable and others less so. Innate personalities have a lot to do with the decisions to prioritize specialization through sponsorship and committee work. Further, legislators seem to use bill sponsorship as a representation tool, though less obviously than the delegate model of representation might expect. Rather, legislators appear to attempt to represent constituents by assuming that which their constituents may want, looking to both district patterns of employment as well as the issues owned by their unique parties. While variance exists in these realms, taken together legislators seem to be interested in leveraging bill sponsorship to respond to preferences of constituents, though preferences they *assume* constituents retain. Chapter 5 also concludes by laying out future work to be done on these subjects, in light of the findings presented throughout.

CHAPTER 2

Do Constituents Influence Issue-Specific Bill Sponsorship?

Congressional bill sponsorship has been shown to be an effective tool for position-taking (Platt and Sinclair-Chapman 2008; Rocca and Gordon 2010; Schiller 1995), as well as to achieve specific goals of subgroups (Barnello and Bratton 2007).¹ And functionally, bill sponsorship is valuable in that it is the necessary starting place for most policy creation. Yet, why sponsor bills on specific issues in the first place, despite the downstream benefits (i.e., position-taking and agenda setting)? Though fine, the distinction between the decision to hone in on a specific issue and then the desire to do something with the bill such as stake out a position, remains unclear. Given the dearth of understanding of the process of honing in on specific issues in sponsored bills, an ideal place to look for an answer to this question is in responsiveness to constituent preferences, as legislators are elected to be the representative voices of their constituents in a crowded, competitive government (Eulau et al. 1959). In short, the representative relationship suggests that the signature of constituents should be on legislators' behavior to some degree. Regarding issue-specific sponsorship decisions, is this the case?

To look for the influence of constituents on legislators' issue-specific sponsorship, there are two primary ways this influence could take shape: through proxies for preferences such as employment in a related industry, and then more directly through

¹ Philip D. Waggoner, Do Constituents Influence Issue-Specific Bill Sponsorship?, American Politics Research. Copyright © 2018 (Copyright Holder). Reprinted by permission of SAGE Publications. <https://doi.org/10.1177/1532673X18759644>

stated issue preferences. As such, I start by assessing district characteristics through industry-specific employment as proxies for constituent preferences. After the proxy tests, I gather new data from different Congresses and drill down to explore the impact of constituents' stated issue preferences on sponsorship. To do so, I generate multilevel regression with poststratification (MRP) estimates of the most pressing problems from constituents' perspectives. This approach allows constituents to place themselves in policy space, rather than being placed in ideological space as a function of responses to a battery of positional questions. The direct test, then, should offer a look at whether constituents' stated preferences exert any influence legislators' prioritization of related issues in their sponsorship portfolios. Taken together, the proxy approach capturing general preferences coupled with the direct look at constituents' preferences across a variety of issues should reveal their impact on issue-specific sponsorship, if such an influence exists.

Across three of the four issues explored in the proxy tests, there was a substantial, albeit *indirect* effect of constituents on legislators' bill sponsorship, whereby industry-specific employment influenced the likelihood of related issue sponsorship. These findings are in line with the notion of district characteristics impacting Congressional behavior (Adler and Lapinski 1997). However, the *direct* tests revealed virtually no consistent evidence of constituents' stated issue preferences impacting legislators' sponsorship behavior. The direct tests results across a variety of issues and Congresses call into question the expectations of the delegate model of representation characterizing the bulk of empirical work on responsiveness (e.g., Wlezien 1996). These findings are in line with research suggesting legislators are likely not looking to their constituents for

guidance to inform policy decisions (Jacobs and Shapiro 2000). Or, at the very least, constituents may not have the resources or capacity to clearly signal preferences to their representatives (Verba 1996), greatly weakening the representative relationship. The implications of these results are important in that bill sponsorship, as a distinct form of behavior in which all legislators are free to take part to prioritize any issue, is largely indirectly impacted by districts, though mostly uninformed by the stated preferences of constituents themselves.

Background and Context

Bill Sponsorship as a Useful and Strategic Tool. Though a relatively low-cost form of behavior, bill sponsorship is vital to the policy process and opportunities of legislators. Functionally, all bills must first be introduced if policy is to be created. Given the thousands of bills introduced in a given Congress and the inversely tiny proportion that passes out of the chamber, legislators see this form of behavior as valuable to some degree as they advance their agendas and stake out issue territory in a competitive space (Platt and Sinclair-Chapman 2008).

But first, why is bill sponsorship worth studying? I suggest bill sponsorship is an active, yet underappreciated form of legislative behavior ideal for analyzing representation and responsiveness for several reasons. First, given the crowded and competitive context of legislatures, sponsored bills reflect some level of priorities of legislators, whether induced by party leaders, constituents, or even members' personal convictions. Individual sponsored bills, then, reflect the priorities of individual members at a single point in time, as a single unit of analysis. This provides an analytical benefit in mapping the behavior and priorities of a large group of individuals engaging in the same

process. Second, and closely related, if individually sponsored bills reflect parsimonious, unitary signals of individual priorities, then sponsorship profiles comprised of aggregated individual bills on individual issues by individual legislators should capture the scope of priorities of each legislator operating in the same policy space. Thus, the aggregate of sponsored bill topics and frequencies should allow for a window into the degree to which legislators are prioritizing issues with this form of behavior. These priorities should be unique to a single Congress and vary across all Congresses given that legislators are guaranteed a seat at the policy table for two years at a time. Third, bill sponsorship represents an outlet of priority signaling for individual legislators, such that they take this form of behavior seriously, using it to their strategic advantages. Individual sponsored bills can be thought of as a tangible expressions of internal cost calculations to prioritize an issue at a single point in time, especially given the vast amount of work facing legislators (Bauer, de Sola Pool, and Dexter 1972).

Additionally, despite the need in certain cases to examine policy outcomes in studies on responsiveness of the entire institution to constituent preferences for example (e.g., Lax and Phillips 2012), there remains a limitation in the generalizability of inferences on legislative behavior broadly when only successfully-passed pieces of legislation or roll call voting are considered. Grounded in the legislative gatekeeping literature, the majority of bills that even make it to the floor to be considered by the chamber, much less those that actually pass out of the chamber, must be blessed by the majority party (Lawrence, Maltzman, and Smith 2006). The majority party keeps a tight rein on the chamber agenda, rooted in the desire to retain majority party status (Cox and McCubbins 2005). Yet, all legislators represent a unique constituency, and thus all

legislators have individual priorities at some level. Examining all legislators' sponsorship behavior, then, should allow for generalizable inferences on issue priorities. Fifth, each sponsored bill must have at least one legislator's name attached to it in order to initiate it in the process. This informs not only a sense of ownership by the sponsoring member, but it provides valuable leverage in drawing inferences about individual-level priorities of legislators. Finally, sponsored bills must have a topic. While obvious, this final point reflects the benefit of considering sponsored bills in gauging issue-specific responsiveness. By having only one topic in one bill, each bill can be placed into a specific category, allowing for direct evaluation and comparison. This is a valuable attribute of sponsored bills, compared to different types of behavior such as district casework for example, which is difficult to categorize and analyze. Thus, evaluating the topics of sponsored bills affords substantial benefits in the ability to making generalizable inferences about legislative decision making of all legislators.²

With the benefits of studying bill sponsorship in mind, past findings on this form of behavior have been fruitful and diverse. Most practically, a key benefit of bill sponsorship is position-taking (Highton and Rocca 2005; Rocca and Gordon 2010; Woon 2008). All legislators in Congress regardless of legislative ability, majority party status,

² In highlighting the value of bill sponsorship, it is important to note that I am not seeking to supplant past work examining other forms of behavior (e.g., roll call voting, legislative speech, federal outlays, etc.). Rather, it is my goal to leverage a comparatively underappreciated form of behavior to address an important question related to representation, responsiveness, and strategic decision making in legislative institutions.

or seniority can sponsor a bill on any issue. Different than other forms of behavior such as roll call voting, bill sponsorship allows legislators opportunities to signal priorities and influence legislative agendas.

Position-taking extends beyond the legislative agenda broadly, acting as an opportunity to evaluate and track subgroup behavior and representation in legislative chambers (Griffin and Keane 2011). For example, Rocca and Sanchez (2008) find that race and ethnicity are determinants of sponsorship and cosponsorship activity in the chamber, with minority members playing a less pronounced role in this outlet than their non-minority counterparts. Similarly, Wilson (2010) found sponsorship as a valuable tool for descriptive representation and advancement of Latino interests in Congress. These and others (e.g., Tate 2001; Whitby 2002) underscore the value of bill sponsorship in advancing policy agendas (Barnello and Bratton 2007; Schiller 1995), gauging support for proposed changes to the status quo (Burstein, Bauldry and Froese 2005), as well as seeking personalized benefits (Woon 2009). Also, legislators take advantage of bill sponsorship as an opportunity to fulfill campaign promises (Sulkin 2009). Taken together, bill sponsorship can be considered a relevant and valuable form of policy signaling and position-taking.

Representation and Responsiveness to Constituents as a Likely Driver. While the findings to date on sponsorship suggest its value in legislative processes, these and other studies start at the point of legislators sponsoring bills. The justification underlying selection of a specific issue is assumed (e.g., assuming Latinos should sponsor “Latino” bills). What is lacking in these studies is a rigorous test of the driver influencing decisions to hone in on the issue in the first place. Such is the purpose of this study. Given strong link between

constituents and legislators in the representative relationship, constituent influence is a reasonable place to begin looking for drivers of issue-specific sponsorship, placing the focus of the study on the elite side of the representation story.

Legislative institutional research has a rich history of addressing numerous areas of strategic legislative behavior from district casework (Freeman and Richardson 1996) to policy representation of constituents' interests (Erikson and Wright 1980; Harden 2016) and committee work within the chamber (Bibby 1966; Gilligan and Krehbiel 1989; Kathlene 1994). These and many other studies of legislative institutions underscore the reality that legislators in the American context are utility maximizers, constantly working to balance daily cross-pressures, all the while serving as a single representative of a unique constituency (Kirkland and Harden 2016). This representative tension has led to mixed findings on the degrees to which legislators are doing their jobs of representing the interests of their constituencies, casting doubt on whether constituents should drive issue-specific sponsorship.

Many have found minimal evidence of responsiveness to constituents' preferences (Jacobs and Shapiro 2000). Bafumi and Herron (2010) show that legislators' voting records are more extreme than the preferences of their constituents. Similarly, Fowler and Hall (2016) find that there is a lack of convergence to the median voter's preferences across a variety of issues, regardless of policy interest and demand. Others have found that the public reacts in the opposite ideological direction when legislators move too far in either direction in ideological space (e.g., Stimson 2004; Wlezien 1995). This suggests that if there is responsiveness, it is out of touch with public sentiment, which is ultimately *not* responsiveness to constituents' preferences.

On the opposite side, though, there is evidence suggesting that legislators are responsive to the preferences of constituents. Beginning from the notion that preferences of constituents can be considered priorities of legislators (Erikson, Wright, and McIver 1993), Stimson, MacKuen, and Erikson (1995) found convergence between constituent preferences and policy output at the national level. Similar findings have emerged at the state (Lax and Phillips 2009) and even city (Tausanovitch and Warshaw 2013) levels of government. Further, the salience of issues has been found to play a conditioning role in the linking of constituents' opinions and legislative output (Lax and Phillips 2012). At an even finer grained level, different segments of legislators' constituencies, or “subconstituencies”, may be signaling issues of priority to legislators (Bishin 2009; Miler 2010). The research on subconstituencies highlights the unique point that legislators could even be cross-pressured by constituents *within* a single district.

Though mixed, the findings on responsiveness point to the critical and valuable link between constituents and legislators. The seemingly contradictory findings on responsiveness suggest that the relationship between constituents' preferences and legislators' behavior is not fully understood, leaving the door open for the possibility of constituents to influence their legislators. In my quest for drivers of issue-specific sponsorship, then, I begin by looking to constituents as likely drivers of issue-specific bill sponsorship.

Past Findings and Expectations. The context linking constituent preferences and sponsorship is underpinned by the institutional realities surrounding all legislators in the American Congress. Legislators have far too many options of things to do while serving in Congress (Bauer, de Sola Pool, and Dexter 1972). This implies an opportunity cost

environment conditioning all actions such that a decision to do one thing implies not only value in that thing, but also acts as a simultaneous decision to *not* do a host of other things. Bill sponsorship is one of these outlets to express policy priorities and signal responsiveness, given the necessity of starting at the sponsorship stage with the goal of creating policy. And as representatives are put in office by electing constituencies who have some degree of interest in their elected officials' behavior, coupled with the findings on sponsorship retaining position-taking and agenda setting value, it follows that constituents should impact legislators' decisions to sponsor bills on specific issues. While this impact may vary over issues or legislators, there is room to expect constituents to influence legislators' decisions to hone in on issues to comprise their sponsored bills. Once sponsored, bills are then leveraged for downstream benefits such as position-taking.

If sponsorship is beneficial for legislators to some degree, and if legislators have the electoral motivation to pursue the interests of their constituents (Mayhew 1974), then constituents' issue preferences should influence issue-specific bill sponsorship to some systematic degree. Given the representative relationship implying a degree of connection between constituents and legislators' behavior, coupled with the dearth of understanding on why legislators hone in on specific issues to comprise their sponsored bills, there is room to expect constituents' preferences on specific issues to influence legislators' issue sponsorship decisions.

In looking for evidence of constituents impacting issue sponsorship, the first round of tests takes a proxy approach to provide a starting place in exploring this relationship. This bird's eye view of constituent influence on legislative behavior is similar to other studies using constituent characteristics to explore the link between

legislators and constituents (e.g., Adler and Lapinski 1997; Fowler and Hall 2016; Herring 1990). Given the focus on decisions to hone in on specific issues coupled with the general approach of looking for broad trends in issue sponsorship, the proxy tests explore four issue areas: agriculture, transportation, defense, and commerce. If constituents impact issue sponsorship, then it should be visible on the issues about which constituents care most, informed by employment in the respective industry. No assumptions are made about the selected issues. Rather, preferences on a given issue should impact sponsorship on that same issue. From here, I generate the following proxy hypotheses:

Proxy Hypotheses (H1): Constituent preferences on (a) agriculture, (b) defense, (c) transportation, (d) or commerce through industry-specific employment should positively predict sponsorship of bills on (a) agriculture, (b) defense, (c) transportation, or (d) commerce, respectively.

The second round of tests takes a direct look at that which constituents overtly prefer. This is useful to provide a more stringent test aiding in an exhaustive exploration for the effects of constituents driving issue sponsorship. Rather than exploring the likelihood of sponsoring a bill on a given issue relative to all other issues, the direct tests seek to assess the prioritization of a given issue as a function of constituent preferences. The logic is that as the percentage of constituents preferring a given issue increases, so too should the frequency of sponsorship on the respective issue, accounting for sponsorship on all other issues. Increased frequency, then, is assumed to capture increased prioritization. This should provide a more rigorous test of whether constituents are driving legislators' issue sponsorship.

Regarding the issues, rather than selecting four general issues with no justification as in the proxy approach above, in the direct tests I account for the possibility that responsiveness may not be constant across all issues for several reasons. First, issues often vary in saliency, both in the mass public (Burstein 2003) as well as in Congress (Sulkin 2005). This suggests that some issues could be more likely to be on the legislative agenda than others. Second, different subconstituencies simply have different issue priorities, which influence legislators' areas of focus (Miler 2010). Third and simply, issues themselves are different than each other, implying variance in focus and priority both by legislators and constituents. For example, the environment is a fundamentally different issue than defense. In times of war, the issue of defense may receive greater attention and priority than the environment. Taken together, there may be non-constant responsiveness across all issues.

To account for the possibility of non-constant responsiveness across issues, then, I look to the issue ownership literature to inform my selection of issues to consider. Petrocik's (1996) influential study, followed by others in the same vein (e.g., Damore 2004; Petrocik, Benoit and Hansen 2003) laid the foundation for drawing associations between parties and specific issues from the perspective of the electorate. Egan (2013) further refined the study of issue ownership, most notably by defining a subset of issues that substantively differ from other issues, which he calls "consensus issues" (5, 16). Consensus issues are those issues on which there is "national consensus regarding [their] ultimate goals" (Egan 2013, 5). Among others, he cites healthcare as a consensus issue, in that a majority of citizens want accessible and affordable healthcare. This is in comparison to non-consensus issues such as abortion, where there is no clear consensus

on the goal (i.e., prohibit or allow). Of these issues, then, each party owns a subset as a function of prioritization of the issues by the parties (e.g., Republicans and defense), which is reinforced by constituents' attribution of the issue to the party. Though prioritization varies over time, on average the ownership of several consensus issues by the parties has been consistent since the 1970s, allowing for development of consistent expectations. Drawing from Egan's (2013, 67) list of partisan-owned consensus issues, then, I focus on four issues, two partisan-owned consensus issues during the study period (2000s) as well as the overall average ownership for each party: economy and defense for Republicans, and the environment and healthcare for Democrats. Though the direct tests expect nothing overt along party lines, the benefit of tapping the issue ownership literature is in the ability to select the most likely issues on which legislators should be acting. In sum, if legislators are driven by constituents to sponsor issue-specific legislation, then constituents' preferences on partisan-owned issues should be the most likely place to observe this influence. From here, I generate the following direct hypotheses:

Direct Hypotheses (H2): Constituent stated preferences on the (a) economy, (b) defense, (c) environment or (d) healthcare, should positively predict prioritization of (a) economy, (b) defense, (c) environment, or (d) healthcare through sponsorship, respectively.

Empirical Strategy

The goal of this analysis is to address whether and to what degree constituents act as drivers of legislators' decisions to sponsor issue-specific legislation. The value of exploring bill sponsorship is in the ability to observe legislators' responses to numerous

preferences across a variety of issues, as there are no limits to quantities and topics of sponsored bills. To do so, I offer a variety of tests, and leverage recent advances in opinion estimation to provide a rigorous exploration for the impact of constituent preferences on legislators' behavior.

Data and Variables. In exploring constituents as drivers of issue sponsorship, I utilize data from a variety of sources for each stage of the modeling processes detailed below. First, I use the Adler and Wilkerson (2013) *Congressional Bills Project* data, which includes all sponsored bills coded by issue topic following the *Policy Agendas Project* coding scheme (Baumgartner and Jones 2010) for both proxy and direct tests. Sponsorship data will cover the 111th-113th Congresses (2009-2015) for the proxy tests, and the 109th-110th Congresses (2005-2009) for the direct tests given the need for gathering new data for new hypothesis tests. Additionally, for both sets of tests, I use the Volden and Wiseman (2014) legislative effectiveness data for several individual-level legislator variables, which are used as controls. Also, I use the Stewart and Woon (2017) committee assignments data for all standing committees analyzed during the study period (2005-2015). Also, Census data is used to generate employment indicators, as well as in the estimates of district level constituent issue preferences.³ Finally, I leverage data on responses to the “most important problem” question from the Cooperative Congressional

³ Selection of the 109th and 110th Congresses for the direct tests are also due to the overlap of years corresponding with the CCES data used for the MRP measure, addressed at length below.

Election Study (CCES) for the measures of constituent preferences used in the direct tests (Ansolabehere 2010a, 2010b, 2010c).

The dependent variables of interest for both models relate to the topics of sponsored bills. For the proxy tests, the dependent variables are dichotomous indicators based on bill topics corresponding with each issue of interest: agriculture, defense, transportation, and commerce. For the direct tests, the dependent variables of interest are counts of sponsored bills in corresponding issue categories: economy, defense, environment, and healthcare.

There are two blocks of independent variables for each of the proxy and direct tests corresponding with issue categories. For the proxy tests, the main independent variables are the proportions of constituents employed in the relevant industry relating to the issue of interest, relative to the total workforce in the district.⁴ The employment figures are used as proxies for constituent issue preferences, similar to past approaches assuming the issue preferences of a district are captured by employment in the respective industry (see, e.g., Fowler and Hall 2016).

⁴ Defense constituencies are those with proportion of employment in the armed forces.

Commerce consists of those employed in management and “professional” related industries. Transportation consists of those in the production, transportation and material moving industry. And finally, agriculture consists of those employed in the farming, fishing, forestry and mining industries. These industries are classified by the U.S. Census Bureau.

For the direct tests, the block of independent variables are issue preferences of constituents, based on district-level estimates of responses to the CCES’ “most important problem” question.⁵ This is an ideal approach to measure constituent preferences in that it allows constituents to place themselves in *policy* space, rather than being placed in *ideological* space as a function of responses to position-specific questions, such as “do you agree or disagree with policy X?” The more common approach of inferring ideological placement of respondents as a function of responses to numerous issue-position question as many have done is beneficial, though requires numerous assumptions. For example, it is assumed that respondents have latent ideology, such that question responses can adequately capture it. These approaches to measuring constituent ideology can lead to misinterpretation of citizens’ issue preferences and inferences given that the measures are capturing ideology, not issue preferences (Broockman 2016). Rather, basing measures of preferences on questions that ask constituents that which they consider to be the most important problem and then providing many options, I make no assumptions about constituents’ ideology. I simply allow constituents to place themselves in policy space, and then use that placement to estimate preferences at a fine-grained level. And further, depending on the model of opinion formation (e.g., on-line, RAS, etc.), inflated or wrong inferences are possible from issue-positional questions (Druckman and Lupia 2000).

⁵ I show the comparison of CCES “most important problem” response categories with related bill topics, based on the Policy Agendas Project issue coding scheme, in the Appendix.

Finally, I control for characteristics that could influence patterns of bill sponsorship on specific issues at the individual-level, given that I am estimating individual-level behavior of legislators (i.e., bill sponsorship patterns). These controls include legislator party affiliation, majority party (only for the proxy models given the pooled Congresses; for direct models on individual Congresses, the party is a dummy for the majority party status), seniority (measured in number of terms served), majority leader (dichotomous; yes or no), committee chair (dichotomous; yes or no), total number of bills sponsored for all direct models to account for total sponsorship portfolios, and issue-specific committee membership (e.g., transportation committee for the transportation sponsorship model).⁶ Importantly, though, district employment could mediate the effects of committee self-selection. To account for this, all committee

⁶ For some of the issues explored, there is either no formal committee for the issue (e.g., there is no “healthcare” committee), or there are multiple committees relating to the issue (e.g., for “defense” there are the Armed Services committee and Veterans Affairs committee, which are comprised in a single “defense committee” indicator). Regarding the healthcare committee, healthcare-related legislation was often referred to the Energy and Commerce committee. Examples include major legislation such as H.R. 1343: Health Care Safety Net Act of 2008, H.R. 1812: Patient Navigator Outreach and Chronic Disease Prevention Act of 2005, H.R. 4519: State High Risk Pool Funding Extension Act of 2006. Thus, the Energy and Commerce committee is considered the healthcare committee for the purposes of this study.

variables included in the proxy tests are purged of the effects of related industry employment.⁷

MRP and Constituent Problem Preferences. To generate independent variables of constituent preferences used in the direct tests exploring whether constituents drive issue sponsorship, I leverage multilevel regression with poststratification (MRP) to generate estimates of district-level responses to the CCES’ “most important problem” (MIP) question. The MIP question was only asked in three waves of the CCES: 2006, 2007, and 2008. I generate MRP estimates for each wave the question was asked to capture the shifting preferences of constituents each year. By using that which constituents state as the most important problem in relation to many other issues, and poststratifying based on state populations of demographic and geographic characteristics, I can gain a direct and statistically reliable look at that which constituents want to see addressed by their representatives. Importantly, I assume that because constituents say something is important, they want their legislator to legislate on it. I refer to these preferences as “problem preferences”, as constituents are stating their perceptions of the most important problem, which provides a basis against which to evaluate legislators’ responsiveness to constituents’ desired issue preferences. This approach assumes nothing of constituents holding legislators accountable for their actions. By using sponsorship as the metric of

⁷ The process of purging committee variables of the effect of employment is similar to mediation analysis. First, committee membership was regressed on related industry employment. Then, the stored residuals from the bivariate tests were used as the new committee service variables, where the effects of employment are extracted.

responsiveness, I am considering the representative relationship from the perspective of the legislators.

MRP has grown in popularity as a method for estimating state, district, and other subunit opinions with a high degree of accuracy. Based on as little as a single national survey, MRP estimates have been found to outperform past opinion estimation approaches such as disaggregation (Lax and Phillips 2009). Simply, MRP leverages multilevel modeling to generate estimates of opinion based on a nested data structure for individuals nested in districts, nested in states, nested in regions, and so on. First, the probability of responding a certain way to a survey question is modeled as a function of demographic and geographic characteristics. Then, opinions of these demographic-geographic combinations of respondents are poststratified (or weighted) based on actual state populations. I take advantage of MRP to generate district-level opinion on specific issues, but based on response to the CCES' MIP question, rather than a battery of issues position questions and responses, as many past approaches have done (e.g., Warshaw and Rodden 2012). My approach allows for a window into that which citizens overtly state is the most important problem from their perspectives, in comparison to all other major problems facing the country. The full MRP analytical strategy is included in the Appendix.

Modeling Strategies. Given the nested structure of the data with levels corresponding to legislators nested within districts, nested within states, nested within Congresses, I estimate multilevel logistic regressions with modeled (or “random”) effects for each level, for each proxy models corresponding to the issue in question. Controls are unmodeled (or “fixed”) effects.

For the direct tests of constituents as drivers of issue sponsorship, I estimate multilevel negative binomial regressions, given the dependent variable measured in counts of bills in the given issue category. The benefit of the negative binomial model is in light of the violation of the equidispersion assumption of the more parsimonious Poisson regression. Given the overdispersion of the sponsorship data, the negative binomial specification adds a random effects parameter to explicitly model the heteroskedasticity in the data, rather than ignore it. I show the results of the dispersion tests in the Appendix, justifying selection of the negative binomial count models. Also, the multilevel strategy here is useful to control for legislator effects similar to the proxy models, including modeled effects for individual districts nested within individual states.⁸

Visualizing and Validating the MRP Measure of Constituent Problem Preferences.

Before the full analysis, visualizing the MRP measures of constituent preferences helps to demonstrate and validate the variance in constituents' issue preferences. At the state level, Figure 1 displays four heatmaps of average MRP estimates, corresponding with individual issues to illustrate broad trends of issue preferences across the country. The darker colors indicate higher percentage of state residents selecting the given issue as the most important problem, relative to light colors indicating the opposite. Importantly, the

⁸ While the goal of the direct tests is to gauge prioritization of specific issues, justifying the selection of count models, credit claiming by legislators could take shape in sponsoring any legislation related to the issue in question. As such, I estimate a series of multilevel logistic regressions as a robustness check for all issues explored in the count models. All results, presented in the Appendix, are robust to the alternative specifications.

selected issues are meant to be illustrative, reflecting the simple average percentage of constituents who selected the given issue in the state.

First, Figure 2.1 demonstrates that unique variance is being captured by the measure, as all four issues are from the same year (2008) though there is a distinct pattern for each issue. And second, the concentrations of responses for each issue are in line with expectations on the variance in issue preference by geography.

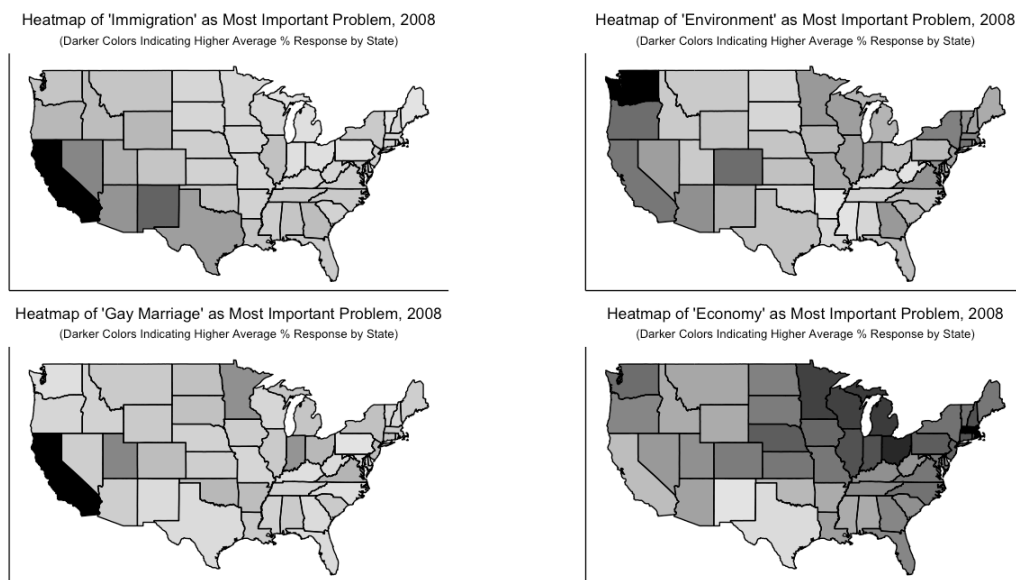


Figure 2.1: Heatmaps of Constituent Problem Preferences based on Average MRP Estimates by State

The upper left plot in Figure 2.1 shows the selection of immigration as the most important problem in 2008 was concentrated around the southern border states. The lower left plot shows the concentration of respondents selecting gay marriage as the most important problem in 2008. There are two ways this could be taken: either for or against. The pattern in the heatmap supports both perspectives, where the highest average response rate was in California, which is when Proposition 8, which made same-sex marriage illegal in the state, was on the ballot. Another high concentration on the other

side of the issue, though, was in Utah, which is a much more conservative state by comparison. Additionally, the plot in the upper right panel of Figure 2.1 shows Washington, Colorado, and other traditionally liberal states having higher concentrations of selecting the environment as the most important problem. Finally, the economy plot in the lower right panel of Figure 2.1 shows the concentration of higher response rates in the mid-West, Northern, and Northeastern parts of the country, which were some of the areas that were hardest hit by the Great Recession of 2008 (Sanburn 2015).

For a more targeted look at the variation in issue preferences at the district level, I zoom in on two extreme states – New Mexico and Ohio – related to selection of the economy as the most important problem in 2008, based on the lower right panel in Figure 2.1.

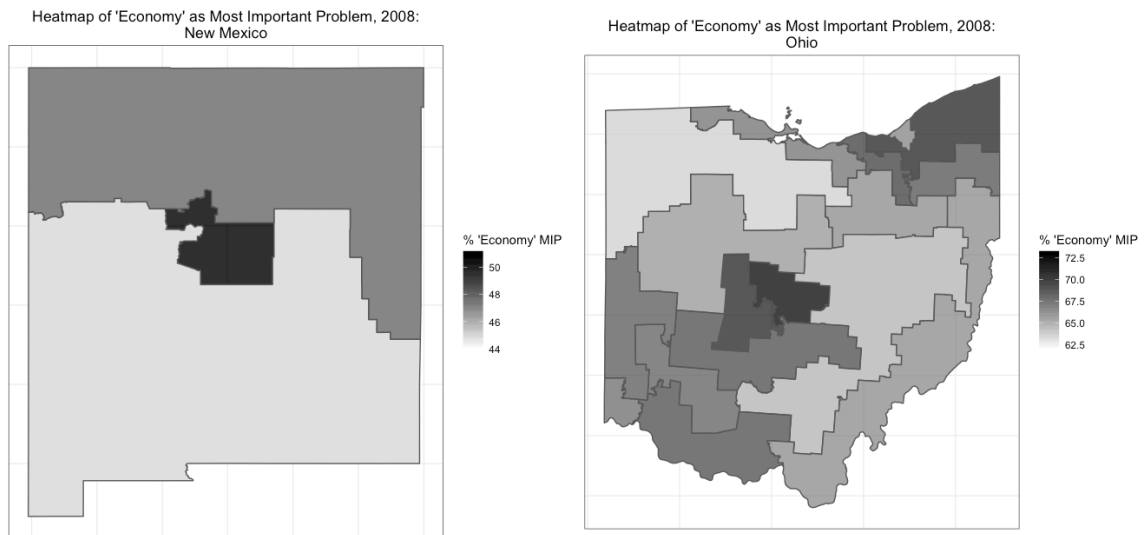


Figure 2.2: District-Level Heatmaps of “Economy” as the Most Important Problem in 2008

In Figure 2.2, the most striking difference between these states is the range of percentages by district. In New Mexico, the range is from around 44% to just over 50% of a district selecting the economy as the most important problem. Strikingly, for Ohio, the low end of the range is around 62.5% with the high end around 72.5% selecting the economy as the most important problem. The large difference of around 22.5% at the high end for both states in selecting of the economy as the most important problem is commensurate with the evidence above relating to Figure 2.1, where the upper Midwest experienced the Great Recession the hardest compared to the rest of the country (Sanburn 2015). Moreover, the darkest areas in both maps include the districts with the most populated cities, which are Columbus and Cleveland in Ohio, and Albuquerque in New Mexico, suggesting the economic effects of 2008 were felt most strongly in large, metropolitan districts. In sum, the evidence from Figures 2.1 and 2.2 help to validate the MRP measure by showing unique variance in issue preferences across the country.

Constituents as Drivers? Bivariate Relationships

Before launching into the full analysis, I first present the results of bivariate tests on the relationship between the MRP estimates of constituent issue preferences and the probability of issue sponsorship. This approach provides a starting place for exploring the relationship between that which constituents say they prioritize, and that on which legislators focus through sponsored bills. I begin with three separate issues for each year used from the CCES to generate the estimates: energy, immigration, and terrorism. I estimate bivariate logistic regressions for each issue, predicting the likelihood of

sponsorship of bills' individual topics as a function of the MRP measures of constituent problem preferences on those same issues in Figure 2.3.⁹

In line with expectations of the delegate model of representation, Figure 2.3 shows a positive correlation between constituent problem preferences on a specific issue and sponsorship of legislation on the same issue. Of the three issues in Figure 2.3, legislators seem most responsive to energy related problem preferences, seen in the steepness of the curve. Still, preferences across all three issues positively predict sponsorship of legislation in these three issue categories.

Yet, are the correlations between issue preferences and sponsorship shown in Figure 2.3 enough to assert that constituents' preferences drive bill sponsorship and related policy focus? To address this question, the remainder of the analysis offers numerous multivariate tests to account for other drivers of this behavior, to determine whether constituents influence bill sponsorship.

⁹ I present only logit curves in Figure 2.3 based on out of sample predicted probabilities for each of these relationships shown in the Appendix.

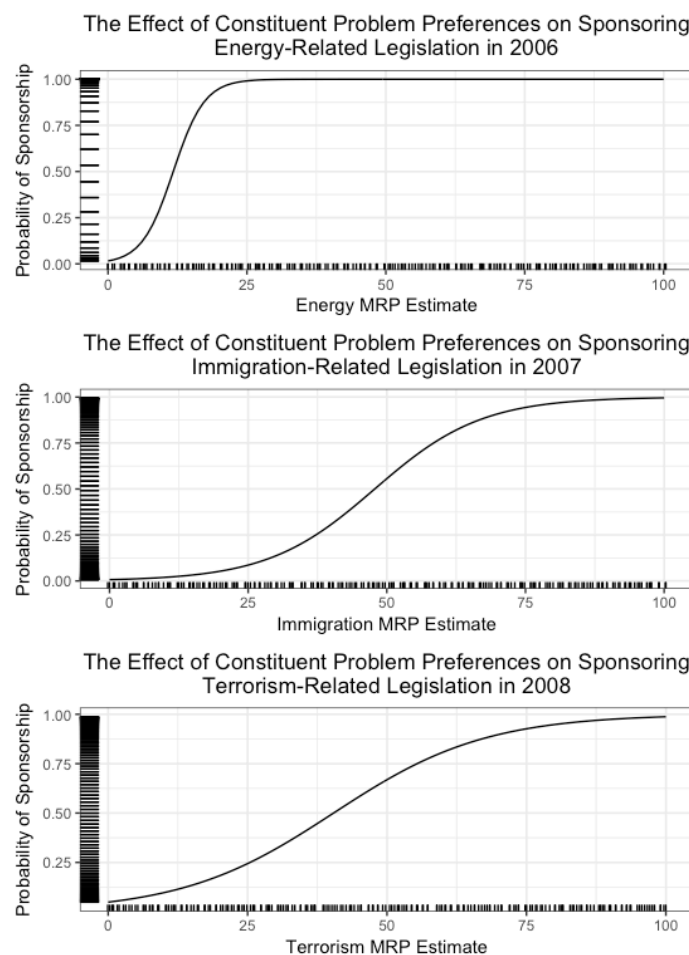


Figure 2.3: Logit Curves for Constituent Problem Preferences Predicting Issue Sponsorship

Constituents as Drivers? The Proxy Models: 111th – 113th Congresses

The goal of the paper is to look for drivers of issue sponsorship. If constituents are indeed drivers of issue sponsorship, then the employment indicators as proxies for preferences in the individual issue models below in Table 2.1 should be positive and significant. This would suggest that as the proportion of the district employed in a given industry increases, legislators should respond by being more likely to take up the same issue in the bills they sponsor.

Table 2.1 shows a strong, albeit indirect impact from constituent preferences through employment on related issue sponsorship for agriculture, defense, and transportation. As employment in an industry increases, the likelihood of related bill sponsorship also increases. Though logistic regression coefficients on their own are uninterpretable, the magnitudes of effect for these three variables are larger than any other effect from any other variables, suggesting district employment is a determinant of related issue sponsorship. These findings are in line with work showing district characteristics as predictors of institutional behavior (e.g., Herring 1990).

Strikingly, in each of the four proxy tests in Table 2.1, the effect of committee membership on issue sponsorship is consistent positive and significant. Behind the effects of constituents on sponsorship, committee membership exerts the strongest impact on the likelihood of sponsorship of related issues. These findings seem to be signaling the role of committees in influencing issue sponsorship (e.g., Woon 2009). Belonging to a committee with jurisdiction over a specific issue is the most consistent driver of decisions to sponsor bills in related issue categories. The potency of committees is accounted for in a series of alternative specifications as robustness checks based on the direct tests below, and presented in the Appendix.

Table 2.1: Proxy Tests of Constituents Driving Issue Sponsorship, 111th – 113th Congresses

	<i>Dependent variable:</i>			
	Bill Sponsorship			
	Agriculture Bills (1)	Defense Bills (2)	Transportation Bills (3)	Commerce Bills (4)
Employed in Agriculture	16.627** (3.970)			
Employed in Defense		16.676** (3.003)		
Employed in Transportation			4.034* (2.032)	
Employed in Commerce				-0.744 (0.700)
Democrat	0.418 (0.291)	-0.112 (0.115)	0.291 (0.166)	0.216 (0.112)
Majority	0.167 (0.282)	-0.245* (0.112)	-0.218 (0.177)	0.138 (0.111)
Seniority	0.015 (0.027)	-0.018 (0.013)	0.018 (0.014)	-0.010 (0.012)
Majority Leader	-0.805 (1.034)	-0.013 (0.373)	-0.940 (0.723)	-0.301 (0.324)
Committee Chair	-0.351 (0.563)	0.291 (0.218)	0.720** (0.248)	0.344 (0.206)
Agriculture Committee Member	0.074** (0.023)			
Defense Committee Member		0.183** (0.015)		
Transportation Committee Member			0.152** (0.018)	
Commerce Committee Member				0.222** (0.023)
$\alpha_{Congress}$	0.01942	0.03368	9.024e-03	6.332e-10
α_{State}	0.35153	0.08153	6.222e-10	8.518e-02
$\alpha_{District}$	0.02830	0.05848	5.880e-08	6.996e-02
Constant	-5.277** (0.408)	-2.719** (0.194)	-4.221** (0.319)	-2.620** (0.277)
N	6,639	6,639	6,639	6,639
Log Likelihood	-416.030	-1,489.260	-868.497	-1,595.880
AIC	854.060	3,000.521	1,758.993	3,213.760
BIC	928.868	3,075.329	1,833.801	3,288.568

Note: *p<0.05; **p<0.01. Coefficients are from multilevel logistic regressions with standard errors in parentheses. Additional models in the Appendix checking for the impact of district ideology demonstrate that the substantive impacts of employment remain unchanged for the three significant issues, and ideology plays a minimal role for only the “Commerce” model, suggesting different issues could reveal different patterns of responsiveness.

Regarding the motivating question, the findings of constituent preferences through employment impacting issue sponsorship as well as the findings on committee membership possibly driving sponsorship, could be a function of the issues explored, the

Congresses examined, or the preference signaling mechanism from constituents being a proxy. To address each of these points, I turn now to examine different issues and different Congresses, using a direct measure of constituents' stated issue preferences.

Constituents as Drivers? The Direct Models: 109th Congress

To deepen the exploration for constituents' role in issue sponsorship, this section offers a more direct series of tests using a new measure of constituent preferences, new data, new hypotheses, and new issues, but toward the same end as the proxy tests. Such an approach allows for any evidence of constituents driving issue sponsorship to surface, given the prominence of the issues selected based on issue ownership (Egan 2013), coupled with a preferable direct measure of constituents' stated preferences, rather than the use of proxies.

Notably, the results in Table 2.2 reveal no measurable impacts from constituents' preferences on legislators' issue sponsorship. The lack of significance for all preference indicators, in addition to the opposite direction of two issue categories (economy (1) and environment (3)), suggest that constituents are not directly influencing issue sponsorship. These findings are despite the more direct measure of constituent preferences in place of the proxies previously used to measure preferences in Table 2.1.

Here again, the most consistent, and now the strongest predictor of issue sponsorship is membership on the related committees. These variables positively predict increased issue sponsorship for all issues, with the exception of the economy.¹⁰

Table 2.2: Direct Tests of Constituent Preferences on Issue Sponsorship, 109th Congress

	<i>Dependent variable:</i> Sponsored Bill Counts			
	Economy Bills	Defense Bills	Environment Bills	Healthcare Bills
	(1)	(2)	(3)	(4)
Economy Preferences	-0.004 (0.018)			
Defense Preferences		0.022 (0.017)		
Environment Preferences			-0.160 (0.179)	
Healthcare Preferences				0.007 (0.034)
Democrat	-0.472* (0.190)	0.169 (0.133)	-0.162 (0.200)	-0.020 (0.119)
Seniority	-0.038 (0.025)	-0.013 (0.017)	0.051* (0.021)	0.025 (0.014)
Majority Leader	-0.018 (0.653)	1.643 (1.039)	0.433 (0.573)	0.073 (0.406)
Committee Chair	0.556 (0.360)	0.433 (0.277)	-0.112 (0.368)	-0.985** (0.311)
Total Number of Sponsored Bills	0.040** (0.006)	0.032** (0.004)	0.036** (0.005)	0.045** (0.004)
Economy Committee Member	0.066 (0.214)			
Defense Committee Member		0.650** (0.144)		
Environment Committee Member			0.946** (0.217)	
Healthcare Committee Member				0.807** (0.144)
$\alpha_{State,District}$	0.9609	0.4934	0.670	0.5166
Constant	-1.324** (0.281)	-1.599** (0.494)	-1.900** (0.257)	-0.738** (0.284)
N	435	435	435	435
Log Likelihood	-420.123	-558.488	-381.568	-699.719
AIC	860.245	1,136.975	783.136	1,419.438
BIC	900.999	1,177.729	823.890	1,460.191

Note: *p<0.05; **p<0.01. Coefficients are from multilevel negative binomial regressions, with standard errors in parentheses.

¹⁰ To ensure membership on a related committee is not swamping the effects of preferences, I re-estimate all models for 109th and 110th (below) Congresses without the committee variables. Results in the Appendix are robust to alternative specifications.

Interestingly, prioritization of the economy is mostly strongly predicted by party, seen by the negative coefficient for the Democrat variable (-0.472) indicating Republicans are more likely to focus on the economy with their sponsorship given the dichotomous measure of the party affiliation variable. This is in line with both the issue ownership literature showing that Republicans own the issue of the economy, as well as the majority party influence, as Republicans were in the majority in the 109th Congress. Being in the majority party and a member of the Republican party seem to be the most prominent drivers of prioritizing the economy through sponsorship, relative to all other issues.

Still, the inferences to this point from the direct models are based only on one Congress. In light of the consistent findings from the legislative gatekeeping literature that the influence of the majority party stretches throughout chamber processes (Cox 2001; Cox and McCubbins 1993, 2005; Gailmard and Jenkins 2007), an alternative institutional context controlling for this is warranted. I turn now to test the same hypotheses corresponding with the direct tests (H2a – H2d), but on the 110th Congress when Democrats were in the majority.

Accounting for the Influence of the Majority Party: 110th Congress

The majority party can play a confounding role in legislative processes in the American context, from roll call voting (Cox and Poole 2002) to committee assignments (Cox and McCubbins 2005), both of which could be impacting the issue sponsorship process, given the impact of party on policy work in Congress along issue specific lines (Shipan and Lowry 2001). To account for the influence of the majority party rather than assume it, I turn now to control for majority party influence by estimating the same count

models, but for issue sponsorship in the 110th Congress when the Democrats were in control. As before, if constituents are driving issue sponsorship, then we should expect positive and significant coefficients for each of the constituent problem preference indicators in the top four rows of coefficients in Table 2.3.

Table 2.3: Direct Tests of Constituent Preferences on Issue Sponsorship, 110th Congress

	<i>Dependent variable:</i> Sponsored Bill Counts			
	Economy Bills	Defense Bills	Environment Bills	Healthcare Bills
	(1)	(2)	(3)	(4)
Economy Preferences	0.036* (0.018)			
Defense Preferences		0.032 (0.025)		
Environment Preferences			-0.019 (0.208)	
Healthcare Preferences				0.003 (0.070)
Democrat	-0.400* (0.175)	0.201 (0.145)	0.495* (0.212)	0.473** (0.119)
Seniority	-0.023 (0.022)	-0.056** (0.018)	0.044 (0.024)	-0.003 (0.014)
Majority Leader	0.568 (0.433)	-0.724 (0.478)	0.007 (0.530)	0.609* (0.261)
Committee Chair	-0.285 (0.446)	0.943** (0.297)	-0.570 (0.436)	-0.417 (0.264)
Total Number of Sponsored Bills	0.043** (0.007)	0.038** (0.006)	0.047** (0.008)	0.049** (0.005)
Economy Committee Member	0.178 (0.223)			
Defense Committee Member		0.787** (0.184)		
Environment Committee Member			0.974** (0.306)	
Healthcare Committee Member				0.849** (0.159)
$\alpha_{State,District}$	0.8547	0.7466	1.127	0.5006
Constant	-2.563** (0.638)	-1.323** (0.407)	-2.713** (0.312)	-0.963* (0.421)
N	433	433	433	433
Log Likelihood	-458.759	-625.824	-391.904	-735.710
AIC	937.518	1,271.648	803.808	1,491.419
BIC	978.225	1,312.355	844.515	1,532.127

Note: *p<0.05; **p<0.01. Coefficients are from multilevel negative binomial regressions, with standard errors in parentheses.

The output in Table 2.3 tells a similar story as the previous two sets of tests in Tables 2.1 and 2.2. Notably, constituents do not seem to exert much of a substantial

impact on legislators' issue sponsorship.¹¹ In the 110th Congress, the economy (0.036) is the only issue on which constituent preferences positively influence prioritization. In comparison to the previously insignificant finding for this same issue in the 109th Congress, the significance of the impact shown in Table 2.3 could be due to the Great Recession, the height of which occurred in the midst of the 110th Congress, which convened from January 3, 2007 and ended on January 3, 2009. Seen above in Figure 2.2, increased citation of the economy as the most important problem during this period could have captured the attention of legislators, such that these preferences positively predict increased prioritization of the economy through issue sponsorship. The singular instance of this significant impact of constituent preferences on prioritization of the economy from only one Congress suggests that future research on the conditioning role of exogenous events on constituents influencing issue sponsorship would add to these findings.

As noted above, part of the value of this second direct test is controlling for, and thus gauging the power of the majority party in Congress. Taking the results from Tables

¹¹ The salience and substance of bill types are accounted for in the Appendix, and reveal substantively similar patterns, where regardless of the Congress or issue (except the environment in the 110th), constituents continue to exert virtually no direct influence on legislators' bill sponsorship decisions. Further, the sponsorship rates were accounted for through a series of secondary specifications by sponsorship quantile in the Appendix. Direct test results hold across 38 of 40 secondary tests, suggesting the direct test results presented here are robust to alternative specifications, where constituents play virtually no direct role in legislators' sponsorship decisions.

2.2 and 2.3 together as well as the implications of issue ownership, the impact of the majority party seems to surface most prominently in the “Democrat” variable, which controls for party affiliation. Specifically, when the Republicans were in the majority in the 109th Congress, the only significant impact from party was on the Republican owned issue of the economy. Yet, when Democrats regained the majority in the 110th Congress, their owned issues of the environment and healthcare became significant, seen in the significant coefficients for the “Democrat” variable of 0.495 and 0.473 in Table 2.3, respectively. The result seems to be that retaining majority party status plays a role, though not exclusively, in allowing members to feel the freedom to prioritize their party’s owned issues through bill sponsorship, in line with the apparent trend of sponsorship being an institutional story over a representational story. Future work is merited in this regard.

In total, the story to this point is a lack of direct impact from constituents, a strong indirect impact from employment, and a mostly consistent impact from committee membership on issue sponsorship.¹² But are the findings to this point a function of the

¹² In the Appendix, I check for the possibility of seat safety conditioning bill sponsorship patterns and find null results for all issues except Defense in the 110th Congress. The lack of significant findings for all other issues in all other Congresses suggests there is no systematic pattern for marginal or safe members in sponsorship. However, upon subsetting specific issues for specific parties, constituent preferences for the issue of “defense” significantly impacted increased sponsorship of the issue. Taken together,

issues considered, with the possibility of a different pattern emerging for different issues?

To address this question, I turn now to the final set of models testing the same direct hypotheses, but for a new pair of issues: inflation and education.

Other Issues? Inflation and Education

The lack of direct impact of constituents on issue sponsorship could be a function of the four issues in Tables 2.2 and 2.3. To test whether this is occurring, while still using consensus issues on which a majority of constituents agree (Egan 2013), I estimate multilevel count models using the MRP estimates of constituent preferences to predict increased prioritization through issue sponsorship on two new issues, but in the same 109th and 110th Congresses in Table 2.4.¹³

The results, though revealing a slightly different pattern for the committee variables, reiterate that constituents do not seem to be exerting any direct influence on legislators' decisions to hone in on specific issues in sponsorship. This is seen by the lack of significant findings for all constituent preference estimates in the top two rows of coefficients for each issue in Table 2.4.

these nuanced findings point to the need for future analysis to probe the link between specific parties and specific issues, as it relates to policy responsiveness.

¹³ As a similar robustness check for the previous direct tests, I estimate separate multilevel logistic regressions for these two issues – inflation and education – in both Congresses and present the results in the Appendix. The findings are robust to the alternative specifications, where constituents still retain no direct impact on sponsorship.

Table 2.4: Preferences and Sponsorship on Inflation and Education, 109th – 110th Congresses

	<i>Dependent variable:</i>			
	Sponsored Bill Counts			
	Inflation Bills, 109 th (1)	Education Bills, 109 th (2)	Inflation Bills, 110 th (3)	Education Bills, 110 th (4)
Inflation Preferences	-0.319 (0.263)		-0.171 (0.102)	
Education Preferences		0.532 (0.346)		-0.063 (0.219)
Democrat	-0.666** (0.220)	0.385* (0.167)	-0.384* (0.188)	0.534** (0.172)
Seniority	-0.045 (0.029)	0.002 (0.021)	-0.025 (0.024)	-0.014 (0.020)
Majority Leader	0.141 (0.716)	-18.821 (8,080.26)	0.449 (0.462)	0.241 (0.404)
Committee Chair	0.310 (0.414)	-0.555 (0.438)	-0.441 (0.489)	-0.373 (0.376)
Total Number of Sponsored Bills	0.045** (0.007)	0.041** (0.005)	0.043** (0.007)	0.037** (0.006)
Inflation Committee Member	-0.482 (0.290)		-0.485 (0.348)	
Education Committee Member		1.369** (0.190)		1.577** (0.257)
$\alpha_{State,District}$	1.248	0.6553	0.9743	0.835
Constant	-1.251** (0.386)	-2.951** (0.772)	-0.982** (0.366)	-1.571** (0.322)
N	435	435	433	433
Log Likelihood	-366.355	-440.043	-423.771	-510.810
AIC	752.710	900.086	867.542	1,041.621
BIC	793.464	940.839	908.249	1,082.328

Note: *p<0.05; **p<0.01. Coefficients are from multilevel negative binomial regressions, with standard errors in parentheses.

Discussion and Conclusion

The legislative institutions literature has demonstrated that bill sponsorship is a strategic tool open to all legislators and provides the opportunities to stake out positions and influence the legislative agenda. Though there are benefits to sponsoring legislation, how do legislators end up selecting the issues that comprise their sponsored bills? Issues of bills are often assumed, with the downstream benefits of sponsorship being the goal of most studies leveraging bill sponsorship as the unit of analysis. Also, the responsiveness and representation literature is comprised of mixed findings on the degrees to which

legislators respond to the preferences of their constituents, paving the way for additional tests of the representative relationship. Taken together, uncovering the drivers behind decisions to hone in on a specific issue over others, allows for a deeper understanding of the role of bill sponsorship in legislative behavior and the relationship between legislators and constituents.

As such, it has been my goal to explore this fine, but important distinction between the benefits of bill sponsorship and decisions to focus on a specific issue, as representatives of unique constituencies with unique preferences engage in bill sponsorship. To do so, I offered a variety of tests over a range of issues exploring whether constituents influence patterns of issue sponsorship. Beginning with a series of proxy tests and ending with direct tests of constituents as drivers, I found that any influence from constituents surfaces only through proxies for preferences through their employment in related industries. Yet, constituents exert relatively no direct influence on legislators' decisions to take up an issue in a sponsored bill. Preferences on the economy in the 110th Congress during the height of the Great Recession were the only instances of direct impacts from constituents.

Taken together, these results suggest that legislators are likely looking to broad trends in their districts (e.g., employment) rather than to the issues that constituents state are their priorities. The aggregate outcome across all models calls into question the expectations of the delegate model of representation. Where the delegate model assumes a priori that the preferences of constituents should influence the behavior of their legislators, my results suggest this is likely not the case consistently across a variety of issues and over time when focusing on bill sponsorship. While constituents may play a

role, at best it seems that it is an indirect and mixed one, with institutional factors such as committee membership being a much more consistent driver of issue sponsorship.

There were several limitations in this study, from exploring only a handful of issues to only five Congresses in total. With the MRP process being a data-intense exercise coupled with only three waves of the CCES containing the question of interest (“most important problem”), the ability to expand the scope of inquiry was greatly limited. Additionally, the motivating question exploring an impact from constituents on legislators’ issue sponsorship decisions minimized the focus on committees in this issue sponsorship process. Though in line with some recent work on committees and sponsorship (Woon 2009), the robustness checks in the Appendix revealed that whether or not committees are taken into account, constituents still play virtually no direct role in issue sponsorship decisions. Still, given the impact of committees on issue sponsorship, future research would add to these findings by exploring committees’ roles in sponsorship decisions in Congress. Also, future theoretical work exploring the link between preferences and bill sponsorship to address the “why” question flowing from these findings would be useful. Ultimately, though, regarding the motivating question on whether constituents influence issue-specific bill sponsorship, the findings here suggest the answer is, “indirectly and minimally, at best”.

CHAPTER 3

Personality and Issue Specialization

In the 105th Congress, Rep. Charles Stenholm (D – TX) dedicated 80% of his sponsorship portfolio to agricultural issues. A 20-year venerated member on the House Agriculture committee, recipient of a Master’s degree in agricultural education, former cotton farmer, and representative of a mostly rural Texas district, this agriculture focus makes sense. And indeed, over a 20-year period, from the 104th to the 113th Congress, Rep. Stenholm ranked second in the chamber in the amount of bill sponsorship attention dedicated to agriculture. He was second, though, to an unlikely legislator. In the 106th Congress, Rep. David Obey (D – WI) ranked first in focusing his sponsorship activity on the issue of agriculture, dedicating 86% of his portfolio to the matter. He was an unlikely candidate for such focus as he never served on the Agriculture committee, has a background in real estate, and a Bachelor’s degree in political science.

Of these two legislators, it is unclear which would be considered a specialist in agriculture policy. Legislative scholarship often suggests that policy expertise and specialization are derived through time spent on committees.¹³ However, if committee

¹³ This assertion flows from Fenno (1973, 1), where he points out, “A member of the House is a congressman first and a committee member second. As a congressman he holds certain personal political goals. As a committee member he will work to further these same goals through committee activity.” While committees are indeed central to process in the House, their centrality in facilitating goal maximization may not be ubiquitous, at least to the same degree for all legislators regarding specialization. I launch

membership is the sole starting place for specialization, then Rep. Obey would not be an agriculture policy specialist, even though he paid the most attention to agriculture of any other legislator through his sponsored bills across 20 years of Congressional bill sponsorship. On the other hand, are both of these legislators agriculture specialists? If so, then of what importance is membership on the agriculture committee, if the same result of “specializing” can be had for committee members and non-members alike?

These examples are illustrative in revealing three main points. First, policy specialization may not be *exclusively* determined by policy focus on an issue. Second, policy specialization may not be *exclusively* determined by assignment to a related committee, much less tenure on that committee. Third, and most importantly, specialization is complex, multifaceted, and not fully understood.

The few studies that have explored areas related to specialization, though distinct from the process by which legislators develop as issue specialists as I address in this analysis, tend to focus on the impact of specialization either on the institution or as a function of the institutional design (e.g., Baughman 2006; Fenno 1973; Krehbiel 1992), or on the role of specialization for reelection value (e.g., Clapp 1963; Katz and Sala 1996). As such, specialization is often considered as a product of the institution, or even going as far as describing specialization as a “norm” assumed to be “universal” across all legislators (Asher 1974, 64). This is in contrast to viewing specialization in a specific issue area as an intentionally pursued (or, by implication, not pursued) option as

from here, suggesting committees are a piece of the story, and may be leveraged differently (or not at all) by different legislators.

legislators engage in the policy process. When a legislator decides to focus her attention on Issue X, there is an a priori decision to focus on something at all. This decision to focus on a topic (rather than which topic), is the subject of this work. The result is a shift from a specific issue to the process of specializing, regardless of the issue.¹⁴ Therefore, the varying degrees to which legislators may or may not pursue specialization in a specific issue area, and thus the differences in how they view and leverage this expression of legislative prioritization are of central importance in this analysis and for the broader understanding of elite political decision making.

I suggest and demonstrate that policy specialization in a single issue area can be considered a combination of access to specialized information on a single policy domain through committee work and enhanced by tenure on the committee, followed by an intentional decision to tailor individual policy agendas to align policy focus with committee focus. All legislators have relatively equal access to specialization as a function of sitting on committees and gaining some level of expertise in the related issue area.¹⁵ Then, in light of the amount of work, effort, and consistency required to translate that policy expertise into specialization in a specific issue area, I suggest legislators' personalities should play a key role in determining whether and to what degree legislators tailor their individual policy agendas to be in alignment with the jurisdictional issue areas

¹⁴ My approach is similar to other work on legislative capacity and governing styles in legislators' careers (e.g., Bernhard and Sulkin 2018; Matthews 1960; Payne 1980).

¹⁵ See, e.g., Arrow (1962) for more on expertise resulting from time spent in and around a concept or outlet.

of committee assignments, given the recent research demonstrating the centrality of personality in elite political behavior (Dietrich et al. 2012; Jones et al. 2018; Klingler, Hollibaugh, and Ramey 2018; Ramey, Klingler, and Hollibaugh 2017). As all legislators have unique combinations of personality traits, their pursuit of policy specialization should be visible along a personality-specific dimension.¹⁶

Using recent validated estimates of legislators' personalities through legislative speeches from Ramey, Klingler, and Hollibaugh (2017), and then latent variable models to generate an original measure of issue specialization based on committee and policy portfolios of individual legislators, I demonstrate that legislators either pursue or shy away from the work it takes to specialize in a specific issue domain as a function of their personalities. For example, more detail-oriented legislators with personality traits such as conscientiousness, are more likely to pursue issue specialization, relative to legislators who are more extroverted, given the duty-driven mindset of conscientious people. Across all "Big Five" personality traits from the 104th–113th Congress, I show the consistency of the impact of personality on decisions to specialize for members of the U.S. House of Representatives, even after accounting for district characteristics. Further, to rule out the possibilities that the patterns reflected in the specialization measure are unique to specific issues, or that issues comprising policy and committee work need not be in alignment as expected by the theoretical definition of issue specialization, I specify a series of duration models to validate my measure of issue specialization. These validation results displayed

¹⁶ This theoretical definition, building on the distinction between the concepts of expertise and specialization, is addressed and empirically supported at length below.

in the Appendix, reveal patterns of specialization-related behavior consistently hold across all policy issue domains, for both substantive (e.g., defense) and non-substantive (e.g., government operations) issues. And finally, as expected in my definition of issue specialization, I show that issues comprising committee and policy work must be in alignment for the legislator to be considered an issue specialist.

My findings add to research on political elite personality and institutional behavior (Best 2011; Dietrich et al. 2012; Jones et al. 2018; Ramey, Klingler, and Hollibaugh 2016, 2017), while providing theoretical and empirical clarity on a relatively underappreciated form of policy prioritization in Congress. The process of issue specialization, as defined, theorized and tested in this analysis, combines several forms of legislative behavior and outlets of policy priority signaling, thereby offering a new way of thinking about relatively routine behavior in Congress. The result is a step toward a clearer understanding of the alignment of policy and committee work for individual members in Congress. And beyond Congress, my findings contribute to a broader realm of research on elite behavior and personality (Toegel and Barsoux 2012). In sum, individuals with power to make significant decisions do so in large part as a function of natural, heritable attributes such as personality, which can be influenced and conditioned by strategic considerations and institutional contexts downstream (see, e.g., Jones et al. (2018) on the link between psychology, ideology, and communication). As such, in exploring elite decision making, the role of personality should be considered alongside more common institutional and strategic explanatory factors.

Legislative Behavior, Issue Politics, and Personality

Committees offer legislators many benefits in the development of their careers as politicians (Fenno 1973), while also acting as outlets for outsourcing complex problems to experts (Gilligan and Krehbiel 1990). As such, it is often assumed that all legislators specialize merely by sitting on committees (Asher 1974). While this assumption fails to account for whether legislators actively pursue specialization, it is a useful starting place in drawing out the link between committees and the idea of specialization, beginning here with issue politics and attention.

Issue politics have typically been explored along the lines of agenda setting (Baumgartner and Jones 2010; Kingdon and Thurber 1984) or the signaling of policy priorities (Jones and Baumgartner 2005; Jones, Larsen-Price, and Wilkerson 2009). Sulkin (2005) showed that issues propel legislators' campaigns and careers by helping legislators get elected, and then allowing legislators opportunities to make good on related campaign promises (Sulkin 2009). And beyond Congress, studying specific issues in the American institutional context helps shed light on the priorities of the president (Cohen 2012), as well as the Supreme Court (Yates, Whitford, and Gillespie 2005). The result is the notion of "issue attention" both at the individual (Woon 2009) and institutional (Sheingate 2006) levels. Studies in this vein tend to leverage the policy content associated with the issues to better understand the institutions and actors. This is for good reason, as studying shifts in focus on the issue of defense, for example, can shed important light on the spending and foreign policy priorities of a country, as well as individual legislators.

Within issue attention and issue politics, the use of bill sponsorship is a common tool for signaling focus and prioritization of issues (Rocca and Gordon 2010; Schiller 1995; Woon 2008). The value of these approaches lies in the ability to explore individual level behavior based on a form of priority signaling open and available to all legislators in Congress, and in which legislators commonly participate. The result of these and other studies suggests bill sponsorship is a valuable place to explore issue attention and issue politics more broadly. Yet, though valuable, if the focus remains on the issues themselves, the process for honing in on these issues can often be overlooked (but see Woon 2009). Further, some have suggested the use of issues to signal priorities (Egan 2013) and responsiveness to constituents (Sulkin 2009).

At the mass level, personality has been found to explain a great deal of variation in behavior and decision making, from vote choice (Caprara et al. 2006; though differently for different levels of political sophistication (Osborne and Sibley 2012)) to political ideology (Gerber et al. 2010; Jost, Federico, and Napier 2009). At the elite level, the findings to date on personality and behavior suggests its role is consequential (Klingler, Hollibaugh, and Ramey 2018). Dietrich et al. (2012) found that state legislators' personalities are strongly associated with their legislative behavior, though Hanania (2017) found that the expression of personality amongst legislators differs from that of the mass public. Jones et al. (2018) found differences in communication style and focus in Twitter accounts across partisan elites as a function of ideology and psychological characteristics. And beyond the American context, Best (2011) demonstrated that legislators' personalities are distinct from their constituents in Germany. Most recently Ramey et al. (2016, 2017) used legislative speeches to uncover

significant variation in behavioral patterns along the lines of personality in the U.S. House. For example, those who exhibited more “openness to experience” in floor speeches also signaled less “emotional stability.” In sum, the findings at the mass and elite levels suggest a prominent role for personality influencing behavior.

Theoretical Context

Before discussing who specialists are and the process of deciding to specialize in Congress, it is important to first establish a definition of issue specialization to frame the analysis. Issue specialization is policy concentration unique to a specific issue, and a function of two conditions: expertise and focus. Expertise is more passive, gained through committees, while focus is more active, where legislators must choose to participate in focusing attention on an issue.

First, regarding the passive condition, expertise is knowledge of and investment in an issue. Expertise is considered passive in that spending time in and around an issue automatically results in some level of knowledge that will be greater than those who are not spending the same amount of time and devoting the same amount of attention to the issue, all else equal (Arrow 1962). While expertise varies given differences in cognitive processing and retention, on average those spending a greater amount of time engaged in an issue area will be greater experts compared to those who are not engaged in that same issue. Expertise in Congress, then, is most clearly developed at the committee level. Assignment to and time spent on a committee with a specific issue jurisdiction creates an environment where expertise on a related issue is gained through time spent on that issue relative to other issues (e.g., the agriculture committee will focus on agriculture issues rather than defense issues). This information environment provides an opportunity for

legislators to grow in expertise as a function of participation in and around the given issue. Expertise should grow as time spent on the committee increases, given the increased knowledge and investment in the related issue area.

The combination of committee assignments and tenure satisfy the expertise condition for a couple of reasons. First, committees can be considered as specialized information hubs given their responsibilities of dealing with highly technical and narrow policy questions and problems. As such, those on the committees are spending more time in and around a single issue area than those who are not on the committee. Belonging to a committee provides a level of information and buy-in that is unique to those who serve on the committee, compared to those who do not have the same information or buy-in.

Second, the active condition of issue specialization is focus. Focus is a decision on the part of the legislator to engage the issue in question through their behavior. Behavior of legislators captures focus, given the opportunity cost structure conditioning the legislative environment; a decision to do one thing is a simultaneous decision to not do any number of other things. Focus is an important part of defining specialization in that it taps legislators' motivations to specialize through a willingness and desire to be actively associated with an issue. Legislators' behavior reveals the issues on which they focus. Legislators who invest limited time, resources, and effort in an issue through policy are choosing to prioritize and associate with the issue, or else they would expend those resources and time elsewhere and on other issues.

While there are many ways to actively focus on an issue in the chamber, the clearest is through bill sponsorship. This is the case for several reasons. First, every legislator is free to sponsor as many bills on any topics they wish. This bypasses any

selection issue associated with studying roll call voting or legislative effectiveness, which are both based on selected subsets of legislators who are able to pass bills. Second, every sponsored bill must have one topic. This allows bills to be placed into clear categories both in Congress for assigning bills to specific committees, as well as in analyzing sponsored legislation. Third, each bill must have a primary sponsor. This provides both a sense of ownership for the bill and issue on the part of the sponsor. And fourth, bill sponsorship occurs in massive quantities suggesting legislators view this form of behavior and position-taking seriously.¹⁷ Importantly, decisions to sponsor legislation related to the committees on which legislators serve should be distinct from other forms of policy behavior such as total bill sponsorship (which signals broad agenda-setting) and legislative effectiveness (which signals legislative ability). Rather, the act of devoting individual bills to a specific issue should capture individual-level focus on the related issue, relative to these other broader expressions of legislative behavior. And as pointedly noted by Grant (1973), “measuring specialization on the basis of bill sponsorship is not completely a waste of time” (143).¹⁸

¹⁷ While some suggest bill sponsors introduce legislation knowing it will fail, this strategy occurs for specific reasons under specific conditions such as signaling to organized interests or the majority party (Gelman 2017).

¹⁸ Importantly, Grant’s (1973) treatment of “specialization” provides a useful starting place for thinking about specialization in that he looked at only one issue. The value of Grant’s approach is in terms of framing specialization as a way to categorize legislative decision-making.

In sum, legislators are assigned to committees, either intentionally through positive responses by party leaders to specific committee requests or unintentionally in the absence of specific committee requests. Then, as they spend time on those committees, their expertise in the related issue area increases merely as a function of assignment to and time spent on the committee. This increase in engagement with the issues related to the committees increases legislators' interest and investment in the given issue area. Expertise allows for the manifestation of that investment to be translated to decisions to actively pursue specialization by taking up the related issues in individual policy agendas and portfolios. Thus, there is a clear distinction between expertise gained passively and specialization. Specialization, as conceptualized here, is a combination of expertise (passive) and intentional policy focus through related bill sponsorship (active). The distinction between expertise and specialization is important, because decisions to translate expertise into specialization vary across legislators. Indeed, some legislators choose to take the next step of focus and some do not. The result is a degree of issue specialization across all legislators, which should be comprised of committee assignment, tenure on the same committee, and related issue bill sponsorship.¹⁹ This definition of issue specialization is comprised of these factors, which are distinct from total bill sponsorship and legislative effectiveness. More explicitly, I define issue specialization as a combination of committee assignment, related committee tenure, and portions of bill

¹⁹ Unless otherwise noted, "bill sponsorship", "introduction", and "issue sponsorship" are used interchangeably to refer to the same concept, which is sponsoring legislation related to a specific issue.

sponsorship portfolios dedicated to the related issue area, which are distinct from total bill sponsorship and legislative effectiveness. This definition will be specified using nonparametric exploratory factor analysis in the *Empirical Strategy* section.

Who Decides to Specialize? Given the definition of issue specialization, I transition now to address who is deciding to specialize. If specialization requires an active decision to be made on the part of legislators, then this implies that some will choose to specialize, while others will not. Thus, the starting place to assess the process of issue specialization in Congress must both explain behavior as well as distinguish between participants and non-participants. I suggest the personalities of legislators, which vary across all members, is a likely culprit for explaining decisions to specialize. This is the case given the requirement and decision of intentionally translating access to specialization (committee membership and tenure) into issue specialization, which is comprised of expertise and policy focus as discussed above in the two conditions of issue specialization. Personality should influence whether legislators to decide to specialize in an issue area or not as a function of innate processes, while coexisting with classical assumptions of legislative behavior such as reelection, public policy, and careerism (Fenno 1978; Mayhew 1974). Put differently, tapping legislators' personalities to explain patterns of issue specialization should not conflict with the reelection motivation, pursuits of careers, and good public policy explaining legislative behavior, as legislators who run for office and craft policy are still individual humans with unique personality traits, suggesting they will vary in their actions. As such, drawing on personality to explain legislative behavior should deepen our understanding of precisely *how* legislators engage in the process, beyond explaining that they do engage in the process.

While some institutional factors condition legislators' decisions to specialize, their personalities should be prominent drivers of these decisions. This is the case given the amount of work, effort, and resources that must be expended on specializing, all in a limited amount of time. Given the pervasive influence of personality in many aspects of politics and decision making from mass behavior (Gerber et al. 2013; Mondak 2010) to political elites (Best 2011; Dietrich et al. 2012; Jones et al. 2018), members of Congress are no exception (Ramey, Klingler, and Hollibaugh 2016, 2017). As recent evidence has uncovered legislators' behavior being strongly influenced by and rooted in their personalities, there is reason to be optimistic about pursuing this approach to studying elite legislative behavior (Dietrich et al. 2012). Therefore, I expect legislators' personalities influence their decisions on whether to expend precious little time and resources to specialize or not.

Recently, a prominent way to study personality is using the "5-Factor Model" (Norman 1963). The 5-Factors, or "Big Five" personality traits are: conscientiousness, openness to experience, extraversion, agreeableness, and emotional stability (sometimes referred to by its opposite pole as neuroticism) (Barrick and Mount 1991; Digman 1990). Modern applications of the Big Five, rely upon a 10-item battery of questions, with two questions corresponding with each of the five personality traits (Rammstedt and John 2007). Responses to these questions provide a measure of respondents' unique personalities (e.g., scoring high on extraversion and scoring low on emotional stability). Though there are many approaches to measuring personality in psychology, the Big Five are ideal for my application given that they are heritable, highly stable over time, and have decades of literature validating the variation in personality they capture. I now

generate expectations for each of the Big Five traits and how they are related to legislators' decisions to specialize.

Personality and Issue Specialization. *Conscientiousness.* The conscientiousness personality trait is defined as a mixture of traits including dependability (Fiske 1949), desire and will to achieve (Digman 1989; Wiggins, Blackburn, and Hackman 1969), and work more broadly (Peabody and Goldberg 1989). Conscientious people are associated with being detail-orientated and duty-driven, where intentional planning and decisions are prized above spontaneous action. Further, conscientiousness can even be perceived as “stubborn [and] obsessive” (Toegel and Barsoux 2012, 54). Regarding issue specialization in Congress, given the time required to grow in expertise, which should induce greater knowledge and buy-in for the given issue (condition 1) as well as the resources and effort that must be actively expended to focus policy efforts on a given issue area (condition 2), conscientiousness should positively predict issue specialization. Such an unrelenting pursuit of specialization in an issue area could even require, or at least be perceived as “obsession” with an issue.

H1: Conscientiousness positively predicts issue specialization.

Openness to Experience. Openness to experience, as reframed by McCrae and Costa (1985), is most commonly associated with intelligence (Borgatta 1964; Peabody and Goldberg 1989). More broadly, though, openness to experience entails more than experiences, including openness to new ideas and processes for thinking about the world in the face of new evidence and information. As such, individuals who retain this personality trait are original, imaginative, and “broad-minded” (Barrick and Mount 1991, 5). There is a sense of curiosity associated with this trait, where newness is sought out.

Bringing this personality into the legislative arena, given that issue specialization requires a degree of actively pursuing policy focus on a specific issue (condition 2), I suggest that openness should positively predict issue specialization given the need to seek out new information and contexts to learn about an issue to effectively grow in, and ultimately signal ability to specialize in an issue area.

H2: Openness positively predicts issue specialization.

Extraversion. Extraversion, or “surgency,” is best understood in comparison to its counterpart, introversion (Eysenck 1959). This personality type is associated with attention-seeking behavior (Ashton, Lee, and Paunonen 2002). Energy is sought out in interactions with other people, and these personality types can be dominating (Toegel and Barsoux 2012). In the Congressional context, this distinction between types of legislators can be likened to a “show horse”, relative to a “work horse” (Bernhard and Sulkin 2018; Payne 1980). While work horses would be more likely to specialize given the payoffs coming from the work, the show horses, which in this case would be the extroverts, would be less likely to specialize, given the arduous task of pursuing specialization on a single issue. There is a great deal of energy, endurance, and patience required to focus on a specific issue over time, which may even result in little to no immediate payoff. Thus, legislators who are more extroverted, and thus seeking more immediate social rewards from their work in the chamber should be less likely to pursue issue specialization.

H3: Extraversion negatively predicts issue specialization.

Agreeableness. Agreeable individuals are preoccupied with social conformity (Fiske 1949), likeability (Borgatta 1964; Goldberg 1981), and compliance (Digman and Takemoto-Chock 1981). As such, agreeableness is associated with tendencies to be

cooperative, compassionate, and willing to see and pursue the good of others in social contexts. These personalities types can sometimes be seen as “people-pleasers” or “peace-makers”. In Congress, where decisions to pursue specialization are intentionally made in a competitive environment, those who are high on the scale of agreeableness, which can at worst be considered naïve or submissive (Toegel and Barsoux 2012), should be less likely to put in the time, effort, and work required to specialize in an issue area.

H4: Agreeableness negatively predicts issue specialization.

Emotional Stability. Finally, the fifth personality trait in the Big Five model is emotional stability, which is the opposite pole of neuroticism, as it is sometimes referred to in psychology (*cf.* Barrick and Mount 1991, 4). Associated with traits such as confidence, emotionally stable individuals can be thought of as resilient (Toegel and Barsoux 2012). Those who are highly emotionally stable are often seen as stable, calm, and calculated. These types of people are less likely to waiver and are less likely to be reactionary. Though these individuals can be perceived as uninspiring (Toegel and Barsoux 2012), emotional stability should manifest in consistent and reliable behavior, on average. In the legislative context, and issue specialization specifically, emotionally stable legislators should be likely to invest the time and resources required to pursue paths of issue specialization, relative to less emotionally stable legislators who exhibit reactive behavioral patterns.

H5: Emotional stability positively predicts issue specialization.

Empirical Strategy

The goal of this analysis is to understand the patterns and process of issue specialization in Congress. I am particularly concerned with legislators’ processes of

determining whether to expend limited time and effort on pursuing specialization. To do so, I suggest legislators' personalities are at the heart of the explanation. I expect that legislators who are more conscientious, open to new experiences, as well as those who are more emotionally stable and methodical should be likely to specialize. These legislators are in comparison to those who are more extraverted and agreeable, who should be less likely to specialize. Looking to the personalities of legislators, I suggest we can learn about individual paths of issue specialization, apart from the content of the issues themselves. Table 3.1 reiterates the theoretical expectations of the impact of personality on issue specialization.

Table 3.1: Theoretical Expectations for Personality Predicting Issue Specialization

<i>Personality Trait</i>	<i>Expectation</i>
Conscientiousness	$\beta > 0$
Openness to Experience	$\beta > 0$
Extraversion	$\beta < 0$
Agreeableness	$\beta < 0$
Emotional Stability	$\beta > 0$

Measuring Issue Specialization. In order to determine whether or not a legislator is an issue specialist, I first need a measure of issue specialization. Grant (1973) notes, “[I]f we find individuals concentrating sponsorship of bills in specific areas it is not unreasonable to consider them as possible specialists in one or more areas” (130). As such, I build on Grant’s approach by adding committees to the mix with bill sponsorship decisions. Specifically, based on the definition I set out above, I suggest that issue specialization should be a combination of assignment to a specific committee, tenure on that same committee, and related issue sponsorship as a proportion of total bills sponsored (and thus distinct from total bill sponsorship, which is a broader signal of participation across numerous issue areas). I leverage exploratory factor analytic models. Given that issue

specialization in these terms is unobservable on its own, I expect the three items comprising the two conditions of the issue specialization definition to load onto a single factor, which I consider “issue specialization.” I expect these expressions of legislative behavior to be distinct from broader forms of policy behavior in the chamber: legislative effectiveness and total bill sponsorship. I place all five items into a single factor analytic model for each issue, and expect total sponsorship and effectiveness to load onto a different factor, explaining broad participation in the chamber (which I call the “participation dimension”). Then, the three items of committee assignment, tenure, and portion of sponsorship dedicated to the related issue should load onto their own factor (which I call the “specialization dimension”). I present specialization scores across each policy area in Figure 1, and also display the factor loadings for each issue model in Table 5 in the Appendix. For a more intuitive check on whether the three main items (committees, tenure, and related sponsorship) are distinct from the other two participatory indicators of legislative behavior (total bill sponsorship and effectiveness), I also display the factor patterns for each issue in the Appendix in Figures 6 – 14. In the distributions of all issue specialist measures for each issue in Figure 3.1, the crosses represent related committee members, and the triangles represent non-committee members. The most striking feature in these distributions across all issues is the clear pattern of those who pursue specialization, and those who never do, who are concentrated around 0 at the bottom of each plot. The two data generating processes in these data are addressed at length in the subsequent section on using these individual measures to delineate between specialists and non-specialists.

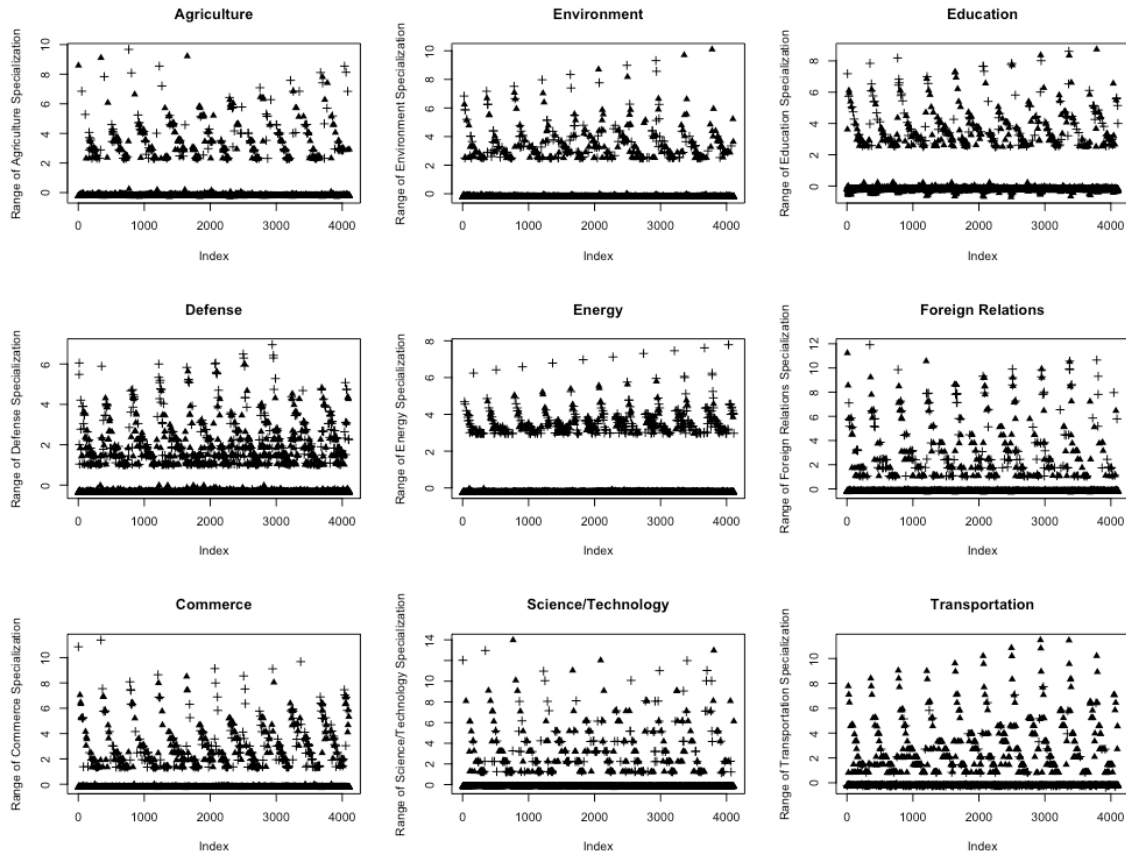


Figure 3.1: Distributions of Issue Specialization in Congress Across All Major Issues

The expectations from the discussion above are supported in Figure 3.1 as well as in the factor loadings presented in Table 5 in the Appendix. Importantly, all three theoretically relevant items relating to issue specialization load onto a single factor to varying degrees across all issues. As expected, none of these three items loaded onto the second factor of “participation”, lending support for the distinction between specialization and participation.

The value in this data reduction exercise is the combination of all items allows for an explanation of a single phenomenon as a function of various observable forms of behavior. This single underlying phenomenon of issue specialization is allowed to vary based on different rates of participation in each realm. For example, Rep. Gary Ackerman

(D – NY) served on the Foreign Affairs Committee for 28 years, yet in the 111th Congress did not devote any of his 17 sponsored bills to foreign affairs issues. On the opposite pole, in the 106th Congress, Rep. Jose Serrano (D – NY) devoted 55% of his sponsorship portfolio to the issue of foreign affairs, yet he was not a member on this committee during this Congress. These more extreme examples are illustrative in that they point to the wide variance in combinations of these three key items, resulting in legislators being placed at different points along the issue specialization dimension. Importantly, the role of committees plays a pronounced role, where being on committee and related committee tenure provide access to specialization through expertise gained as a result of sitting on the committees. This expectation was strongly supported by the factor loadings, showing the significantly higher loadings for the two committee items – assignment and tenure – relative to the percentage of related issue bill sponsorship.

Returning to our motivating examples at the outset places these patterns into substantive context. Rep. Stenholm (the venerated Agriculture committee member) had an agriculture specialization score in the 105th Congress of 7.84, while Rep. Obey had a score in the 106th Congress of 0.24.²⁰ While this difference between specialization scores is stark, note that Rep. Obey, who never sat on the agriculture committee has never been

²⁰ The standard deviation of agriculture specialization scores is 1.265. The difference between Stenholm and Obey is about 6.0 standard deviations. Though large, to put this into broader context, the difference between the highest agriculture specialization score (9.68) and the lowest agriculture specialization score (-0.31) is about 7.9 standard deviations.

considered an agriculture specialist, based at least on his committee work, personal, and professional background. Yet, when accounting for his bill sponsorship on the topic, which reflects his personal dedication to the issue of agriculture, he may be at least more of a specialist than previously considered. Reps. Obey and Stenholm, then, would both be considered agriculture policy specialists, though to different degrees. This is important to underscore the weight and value of committee participation and work in allowing legislators to develop their specializations. This example is also instructive in that it sheds light on the sliding scale that specialization is considered in this analysis. All legislators leverage key policy realms (bill sponsorship and committee work) differently as they all retain different goals in legislating.²¹ Thus, the specialization measure captures this variance in weighting of these policy realms, where some may be considered “more specialist” than others. The key to determining this variance, as is the goal at present, is *simultaneously* accounting for several forms and outlets for policy work in legislators’ decisions and behavior.

Importantly, in this measurement technique, I suggest the issues themselves do not impact the propensity to specialize, where a decision is made to specialize prior to choosing the issues in which to specialize. I expect legislators to adapt to their unique committee contexts, whatever they may be in light of the profound influence of the party leaders in controlling access to committees. Committees are an important place to begin in this expectation, as committees play a central role in this story of issue specialization,

²¹ See, e.g., Fenno’s (1978) notion of balancing “concentric circles” of representation through behavioral responses.

being the hubs where expertise (condition 1 of the issue specialization definition) grows and increases investment in the related issue, providing the groundwork for aligning opportunity with policy focus on the same issue (condition 2). While some legislators enter the chamber with specific committee requests, many do not (Frisch and Kelly 2007).²² As such, and regardless of assignment requests, party leaders control the committees to which legislators are assigned. Further, in the wake of elections, party leaders are charged with shifting committee assignments to be responsive to and remain in alignment with the new partisan margins in the chamber. The result is party leaders either allowing legislators to remain on committees or “exiling” them from committees (Grimmer and Powell 2013). Party leaders also use committee assignments as strategic rewards (Bullock 1985; Yoshinaka 2005). Thus, given the presence and power of party leaders in determining first whether a legislator is assigned to a committee, then the specific committee to which legislators are assigned, and then how long they remain on those committees, legislators are ultimately at the mercy of party leaders in the committee process, retaining little power of their own in conditioning access to opportunities to specialize. The result should be legislators either adapting to their committee contexts or not as they decide to specialize. As such, I do not expect patterns in issue specialization to significantly vary across individual issues.

²² Upon inspection of the committee request data and a conversation with the original data compilers, it was discovered that thousands of legislators enter Congress with no specific committee requests, hence the citation of Frisch and Kelly (2007).

However, while the issues themselves should not impact legislators' decisions to pursue issue specialization, the definition of specialization suggested here necessitates the issues comprising sponsorship and committee jurisdictions be in alignment (e.g., environment committee members should focus more on the issue of environment to be considered an environmental specialist). Sponsorship and committees are the active and passive conditions that determine the degrees to which legislators are specializing. If a legislator serves on the energy and commerce committee, but prioritizes the issue of agriculture in her sponsorship portfolio, then she would be ranked low in her issue specialization on agriculture and energy and commerce, though likely not a specialist in either of these issue areas.

In sum, given the prominence of party leaders in the committee assignment process, the issues themselves should not influence legislators' patterns of issue specialization, where the same substantive pattern of committee and policy alignment should be similar across all issues. Thus, and importantly, to be a specialist, the issues comprising legislators' sponsorship and committee work must be in alignment. If assignment to and remainder on committees are determined externally from legislators, then legislators should see issue specialization as the thing to pursue, not the specific issue itself at the initial specialization decision stage.

I test for both of these expectations implicit in the measure of specialization using duration models, where the likelihood of related bill sponsorship is predicted as a function of time and committee membership, for both substantive (e.g., defense) and non-substantive (e.g., government operations) issues. The general specialist patterns of related issue committee members being more likely to sponsor related legislation, on average,

than non-members holds across all major issues explored, as well as the non-substantive issue explored. This analysis, which is detailed in the Appendix, is strongly supportive of the expectations of the issue specialization measure, suggesting that indeed, the issues themselves do not impact specialization-related behavior. And also, as expected and tested through a series of second-stage tests, the issues comprising sponsorship and committee membership must be in alignment. Through more duration models in the Appendix, I mismatch issues for committee and policy work, and find null results. Across numerous pairs of mismatched issues, the same null results hold. This provides strong support for the measurement approach based on the theoretical expectations that in order to be considered an issue specialist through a tailoring of focus (bill sponsorship) in light of issue contexts resulting in expertise (committees), the issues across these two domains must be in alignment.

Determining Issue Specialists. With the original measure of issue specialization across a variety of issues in hand, I now turn to determine precisely who are the specialists versus non-specialists for my empirical goal of predicting specialization or not. To do so, given the distributions of each measure shown in Figure 3.1, I estimate a series of Gaussian mixture models. This is a statistically principled method for setting cut-points between two groups in a single space, assuming two different data generating processes (see, e.g., Benaglia et al. 2009), which in this context are the specialists and non-specialists. Based on the expectations above as well as the patterns in Figure 3.1, the intuition behind this approach is that specialization scores across each issue are essentially assumed to be a mixture of two roughly normally distributed random variables. One random variable, which represents specialization scores for non-specialists is tightly clustered around zero.

The other random variable, which represents specialization scores for specialists, is distant from that first random variable and is positively skewed. To find the cut-point between these two distributions, or the point of separation between the normal distributions that are mixed together in the scores as a function of a unique data generating process for each group, I first fit a Gaussian mixture model to the specialization scores using the Expectation-Maximization algorithm (Bishop 2006), which decomposes the specialization scores into two distinct normal distributions, each with their own mean, standard deviation, and so on. Then, the point of separation between the two distributions will be the point equidistant from both means, which is the point precisely between the means of each of the two distributions. Thus, rather than setting a cut-point as a “best guess” between the groups, the mixture models place a cut-point between the groups based on the distance between the two group means, assuming two distinct data generating processes. See the cut-points generated from the mixture models in Figure 3.2, which is an updated version of Figure 3.1 above. Importantly, though the factor loadings in the Appendix in Table 5 show higher loadings for committee variables relative to sponsorship, the process of issue specialization is *distinct* from committee membership, tenure, and participation, given the cutpoints from the mixture models across several issues showing some related committee members being in the “non-specialist” group of legislators. This is clearly shown in Figure 3.2. The result is that sponsorship adds needed nuance to the role committees play as they relate to specialization or not in a specific issue area.

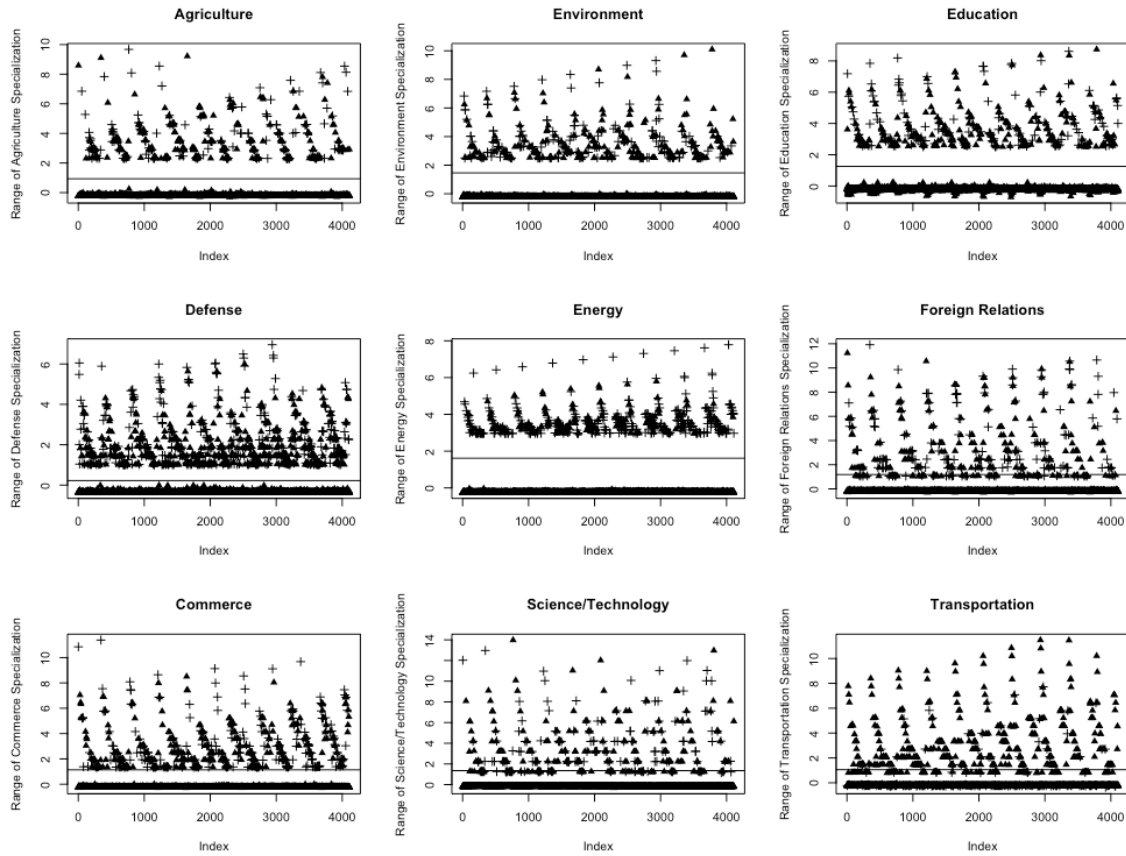


Figure 3.2: Cut-Points from Mixture Models for All Nine Major Issues

The mixture model approach is beneficial for my purposes given the different groups' means across each issue. By allowing the data to determine the two groups of specialists and non-specialists in the given issue area and generate a cut-point between the two, specialists and non-specialists are distributed along theoretically useful, as well as empirically principled lines. This step is crucial to set up a general group of “specialists” and a general group of “non-specialists,” which are predicted in the substantive model later. As a final step, based on the individual mixture models determining specialists or non-specialists for each issue, I collapse scores resulting in these two groups of legislators across all issues into a single dichotomous variable for those who specialize (scoring above the cut-point) and those who do not (scoring below

the cut-point). This dichotomous variable for issue specialists acts as my key dependent variable of interest.²³ See the distribution of issue specialists across all Congresses in the study period in the Appendix in Figure 15.

Data and Variables. Regarding data, bill sponsorship data come from Adler and Wilkerson (2013), with topics coded using the *Policy Agendas Project* (Baumgartner and Jones 2010). The individual level legislator data come from Volden and Wiseman (2014), and the committee assignments data come from Stewart and Woon (2017).

The dependent variable of interest is whether or not a legislator is considered an “issue specialist”. The measurement strategy for this variable is detailed above. In generating the measure, selecting the issues that can readily tie sponsorship to committee work flows from the theoretical expectations and definition of issue specialization. To reiterate, the expectation is that legislators are specialists on issues when they align committee and policy work on the same issue to pursue specialization. An accurate specification of this definition and theory, then, is only possible when committee assignments and bill sponsorship are able to be clearly linked. The issues in the measure are: agriculture, environment, education, defense, energy, foreign relations, commerce, science/technology, and transportation. With the issues selected, the dichotomous indicator of “issue specialist” includes any legislator who was in any specialist group across all issues based on the Gaussian mixture models. Given that I assume nothing

²³ Different iterations of this specialist measure are generated and used for a series of alternative model specifications intended as robustness checks and presented in Table 7 in the Appendix. This precise process and issue selection are addressed at length below.

about the issue in question, this strategy allows for a straightforward test of decisions to specialize (i.e., scoring over the cut-point on any issue).²⁴ Importantly, there are no assumptions for different personalities to be associated with specific issues. Rather, the theory suggests that personality should influence decisions to specialize or not, regardless of the issue.

The independent variables of interest are continuous indicators for each personality type for all members of Congress, generated by Ramey, Klingler, and Hollibaugh (2016). The basic descriptive statistics for each of the five personality indicators are included in Table 2. Ramey, Klingler, and Hollibaugh (2016, 2017) generate and validate personality indicators for each legislator corresponding to the Big Five traits, as a function of legislative speeches. In addition to the basic descriptive statistics for each personality trait in Table 3.2, I also include density plots for each personality type in Figure 5 in the Appendix.

²⁴ To ensure that the measure is not dependent on a single issue, I generate nine additional measures, omitting a different issue across each iteration. Using each of these constrained measures as the dependent variables in nine additional specifications of the full model in Table 3, these robustness checks for issue dependence demonstrate issue selection was not an area of concern for results and inferences. The restricted iterations are shown in the Appendix in Table 7. This is addressed at greater length in the main results section.

Table 3.2: Descriptive Statistics for Big 5 Personality Traits

Personality Trait	Min.	1st Quartile	Median	Mean	3rd Quartile	Max.
Conscientiousness	-0.383	3.114	3.540	3.545	3.977	5.782
Openness to Experience	0.7538	3.4710	3.7120	3.7270	3.9900	6.8680
Extraversion	0.3753	3.2620	3.6190	3.6650	4.0050	7.8040
Agreeableness	1.737	3.473	3.670	3.686	3.893	6.723
Emotional Stability	0.3906	2.9290	3.1860	3.1990	3.4910	5.5490

Note: N = 4,040. Cell entries are descriptive statistics for personality indicators over the full study period, 104th–113th Congress.

Given the measurement of issue specialization and several forms of legislative behavior (committees and bill sponsorship), I control for individual-level factors that have been found to exert influence on legislative behavior. First, I control for party and ideology, given the impact of these attributes on legislative behavior at the federal (Lawrence, Maltzman, and Smith 2006) and state (Jenkins 2006) levels. Second, based on the legislative gatekeeping power of the majority party (Cox and McCubbins 2005) and the impact of majority party membership on committee and policy behavior in the chamber, I control for majority party status. Further, unity with the party has been shown to impact legislative behavior and procedural processes in legislative institutions (Carey 2007), and in the U.S. House of Representatives specifically (Roberts and Smith 2003). As such, I use the Poole (2015) party unity scores to control for legislators' party unity. Given the impact of delegations on bill sponsorship in Congress, where members of the same delegation can work together (or at odds) to pursue policy agendas (Schiller 2000), I control for the size of Congressional delegations. Seniority (Anderson, Box-Steffensmeier and Sinclair-Chapman 2003) and party leaders (Cox and McCubbins 2005) play key roles in the U.S. House as well. As such, I control for seniority (continuous indicator for number of terms), majority leader, and minority leader. Finally, I include a

continuous indicator for a count of bills that are classified by CQ as substantive and/or significant. This accounts for the seriousness of legislators in the bills they choose to introduce, which are distinct from legislators who prioritize less significant issues such as naming of post offices and other commemorative bills (*cf.* Volden and Wiseman 2014).

Modeling Strategy. To estimate the likelihood of issue specialization in Congress as a function of personality traits, I specify a multilevel logistic regression with varying intercepts for Congress, state, and district. This model selection is ideal for several reasons. First, the dependent variable (issue specialist) is binary, and thus requires an econometric specification that can efficiently generate unbiased estimates of the likelihood of specializing as a function of a vector of theoretically relevant covariates. Second, given the panel data structure, a varying intercept for each Congress, which is a measure of time, provides an effective “control” for time by modeling its impacts (i.e., “random effects”). And third, the data are nested, with legislators nested in Congresses, nested in states, and nested in Congressional districts. Standard multiple regression treats observations as independent, thereby failing to account for the hierarchical structure in the data, which could result in underestimated standard errors, leading to a greater likelihood of a Type I error, or a “false positive”.

The Impact of Personality on Specialization

The goal of this work is to take a step in understanding the complexity of issue specialization in Congress. The main expectation is that legislators should see specialization as worth pursuing or not based on their unique personalities. Given the amount of time and work that goes into specialization in an issue area, different types of legislators should be more drawn to specialization in Congress, relative to other

personality types. Based on the expectations above, conscientiousness, openness to experience, and emotional stability should positively predict decisions of legislators to specialize, seen in positive and significant coefficients. Extraversion and agreeableness should negatively predict specialization in Congress, seen in negative and significant coefficients. To better understand the stability of the impact of personality on issue specialization, I begin with the baseline “individual-level” model in column (1), with column (2) adding the party leader indicators. Column and model (3) adds the policy-related indicators, and finally the fourth (4) column displays the output from the fully specified model.

Note the indicators corresponding with personality types in the upper five rows across all columns in Table 3.3. All expectations from *H1* – *H5* are robustly supported, where personality not only impacts decisions to specialize, but it does so in unique ways depending upon the personality type. Regarding *H1*, *H2*, and *H5*, conscientiousness, openness, and emotional stability, respectively, positively predict issue specialization as expected, while extraversion and agreeableness negatively predict specialization, in line with *H3* and *H4*, respectively. Indeed, the stability of personality’s influence on issue specialization is seen in the substantively and statistically stable impacts across all iterations of the model.

Table 3.3: The Impact of Personality on Specialization

	Issue Specialist			
	Individual (1)	Leader (2)	Policy (3)	Full (4)
Conscientiousness	0.373*** (0.103)	0.313*** (0.104)	0.344*** (0.106)	0.350*** (0.106)
Openness	0.885*** (0.122)	0.866*** (0.123)	0.818*** (0.123)	0.813*** (0.123)
Extraversion	-0.364*** (0.076)	-0.290*** (0.078)	-0.327*** (0.078)	-0.329*** (0.078)
Agreeableness	-1.570*** (0.191)	-1.469*** (0.192)	-1.450*** (0.194)	-1.454*** (0.194)
Emotional Stability	0.745*** (0.124)	0.650*** (0.126)	0.676*** (0.127)	0.680*** (0.127)
Democrat	1.837*** (0.248)	1.866*** (0.250)	1.875*** (0.268)	1.898*** (0.277)
DW-NOMINATE	1.716*** (0.256)	1.717*** (0.259)	1.698*** (0.273)	1.691*** (0.273)
Seniority	-0.129*** (0.010)	-0.124*** (0.010)	-0.137*** (0.011)	-0.137*** (0.011)
Majority Leader		-1.158*** (0.241)	-0.956*** (0.243)	-0.972*** (0.245)
Minority Leader		-1.368*** (0.235)	-1.248*** (0.239)	-1.228*** (0.241)
Sub. / Sig. Sponsorship			0.023*** (0.005)	0.023*** (0.005)
Party Unity			-0.033*** (0.006)	-0.034*** (0.006)
Delegation Size				0.006 (0.008)
Majority				0.053 (0.103)
$\alpha_{congress}$	0.001869	0.001362	0.009878	0.01032
α_{state}	0.213898	0.217453	0.168853	0.15192
$\alpha_{district}$	0.655511	0.661403	0.634999	0.63988
Constant	0.935 (0.601)	0.925 (0.607)	3.695*** (0.799)	3.651*** (0.802)
N	4,040	4,040	4,040	4,040
Log Likelihood	-2,130.802	-2,103.274	-2,072.312	-2,071.871
AIC	4,285.604	4,234.549	4,176.624	4,179.742
BIC	4,361.252	4,322.805	4,277.488	4,293.214

*p < .1; **p < .05; ***p < .01. Cell entries are from multilevel logistic regressions. Standard errors are in parentheses. Model one (1) corresponds to the “individual-level”, baseline model; model two (2) adds the floor leader indicators; model three (3) adds the policy-related indicators; and model four (4) is the fully specified model, concluding with additions for delegation size and majority party. The model-building approach here is useful to get a clearer picture of the stability of personality in predicting issue specialization, especially given the newness of this analytical and theoretical approach to exploring specialization in Congress.

To ensure that the results are accurately reflecting of the impact of personality on specialization *regardless* of any specific issue, I estimate nine additional specifications of the full model results in Table 3.3 using a different dependent variable in each, with a different issue omitted for each new measure. The results of these model checks displayed in the Appendix in Table 7 are robust to the alternative specifications,

suggesting the individual issues are not disproportionately conditioning issue specialization as shown in the main model findings in Table 3.3. Specifically, conscientiousness, openness and emotional stability positively impact the likelihood of specialization, while extraversion and agreeableness negatively predict specialization as expected in all hypotheses, *H1 – H5*. And further, as committee and subcommittee chairs, or “bill managers,” are often considered different than rank and file legislators (Evans 1991; Hall and Evans 1990), I account for the impacts of these types of legislators in an updated specification in the Appendix in Table 6 as a robustness check. The results remain statistically and substantively stable even after accounting for the role of bill managers, pointing to the stability of the main findings in Table 3.3.

For a more intuitive look at these findings, consider Figures 3.3 and 3.4. First, Figure 3.3 zooms in on one personality type – openness to experience – for illustrative purposes to graphically depict the impact of a single personality trait on the likelihood of issue specialization. Each band in the plot represents a single simulation of the estimated effect based on the output from Table 3.3, holding all covariates at their mean levels. The resultant plot is based on 5,000 simulations of this effect, disaggregated by party affiliation.

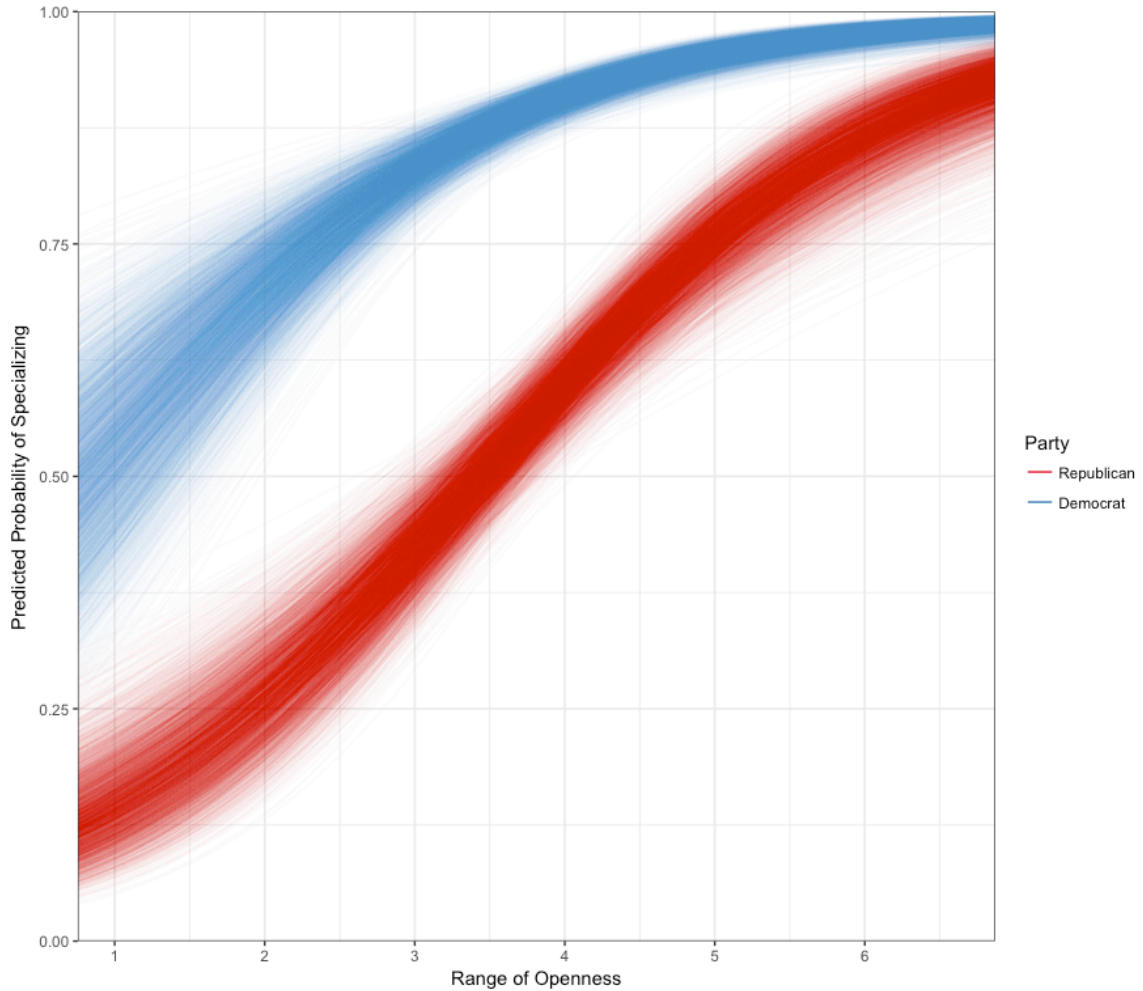


Figure 3.3: Simulated Impact of Openness to Experience on Probability of Specializing

In line with expectations, over the range of the openness to experience personality trait, legislators are exponentially more likely to specialize, the more open to experience they are. Note that at the lowest levels of openness to experience, Republicans are about 15% likely to be issue specialists. But at the highest levels of openness, this jumps to around 90%. The same large positive shift occurs for Democrats, moving from the lowest levels of openness to the highest levels. To better illustrate the substantive manifestation of these results, in the 112th congress, environment specialist Rep. David Rivera (R –

FL) scored the highest on the openness to experience trait. The value of this case is reinforced by the fact that the environment is a longstanding Democratic-owned issue (Egan 2013, 67). As a Republican scoring highest on the openness personality trait across all other legislators from the 104th through the 113th Congress, Rep. Rivera was a specialist on an unlikely issue. Open to both new issues (relative to those “owned” by his party) as well as taking the steps to specialize in that unlikely issue, Rep. Rivera’s case underscores the influence of his personality on deciding to specialize in the environment issue area.²⁵ This relationship between openness and the likelihood of specializing is a useful starting place in exploring the other four traits more closely. To provide the full picture of the influence of personality on specialization, the same simulation approach is followed for the other four traits, and displayed in Figure 3.4.

The patterns in all five plots in Figures 3.3 and 3.4 visually corroborate the relationships displayed in Table 3.3 above. Notably, the three personality types – conscientiousness, openness, and emotional stability – positively predict specialization for members of both major political parties in Congress. Inversely, as shown in Figure 3.4, extraversion and agreeableness negatively predict issue specialization, as expected. Interestingly, the effects of agreeableness are most striking across all other personality

²⁵ Importantly, this pattern is not a function of a correlation between specific issues and personality traits, as supported by the patterns in Figure 38 in the Appendix. Rather, the unique personality trait of Rep. Rivera influenced his unique path and decision of issue specialization, apart from the issue driving his decision to specialize.

traits. This could be due to the “peace-maker” attribute associated with legislators retaining this personality trait, detailed above in the theoretical expectations.

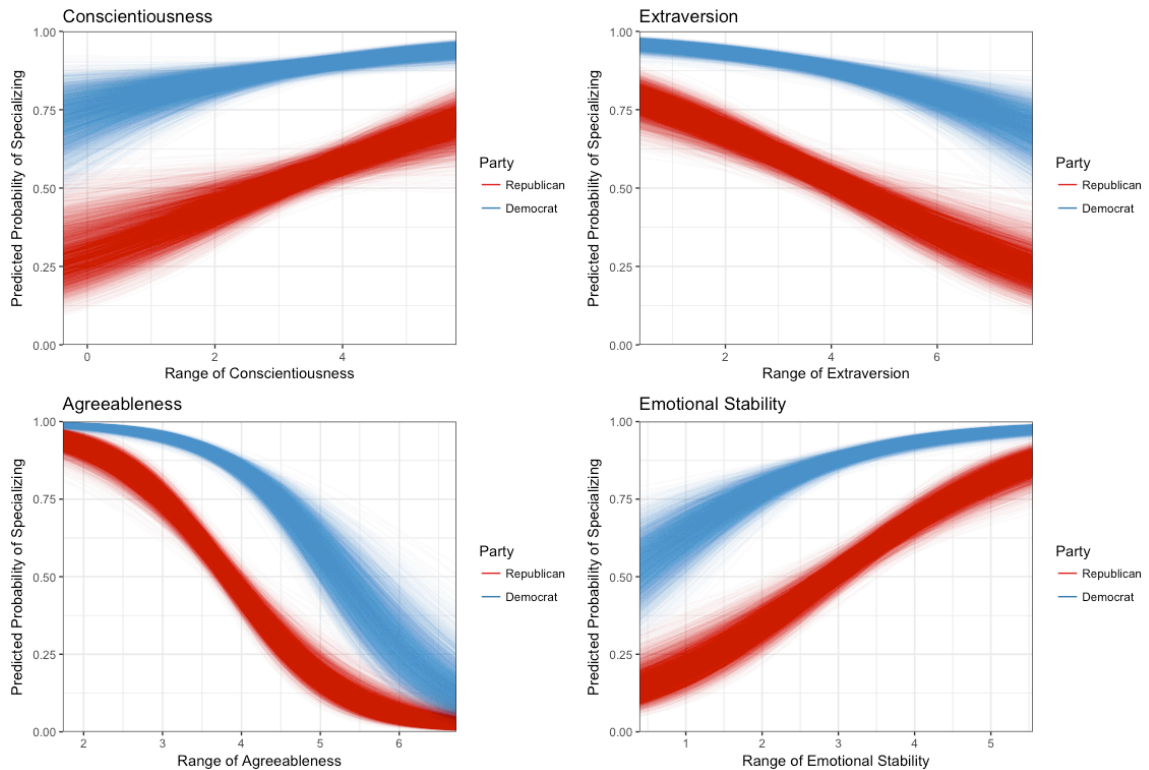


Figure 3.4: Simulated Effects of Personality on Issue Specialization in Congress

A striking result is that Democrats are consistently more likely to specialize than Republicans. In addition to the coefficient for the “Democrat” party variable in Table 3.3, this is indicated by the blue bands always being above the red bands across 25,000 simulations for all five personality types. While an explanation for this pattern was unexpected, and thus beyond the scope of this analysis, implications of this result for future research are discussed in greater depth below in the *Conclusion*.

Similarly, but on the other end of the spectrum, as the most extroverted member in the chamber across all Congresses in the study period, in the 104th Congress Rep. Mark Neumann (R – WI) was not a specialist on any issue. In line with expectations,

Rep. Neumann also had a reputation for being more of a “show horse”, seen though exaggerated quotes likely designed to get attention rather than offer substantive commentary, such as this quote in 2012, “Barack Obama and his team [are] socialists in every respect of the word” (Kertscher 2012). Rep. Neumann’s personality, which is illustrated by this colorful quote as well as in his lack of pursuing specialization on any issue area, reiterates the point that legislators’ personalities influence their behavior *and* decisions in the chamber. Regarding issue specialization, this also seems to be the case. Looking to personality, then, we can better understand the process and decisions of issue specialization in Congress.

In evaluating the *consistency* of legislators’ behavior over the study period, Rep. Henry Waxman (D – CA) serves as an interesting example. Rep. Waxman was a consistent specialist on only one issue relative to all other issues over the study period: energy. He was also consistently highest on conscientiousness of any of his other personality traits during this same period. These patterns are consistent with his position of power on the Energy and Commerce Committee (including a stint as chair), as well as the content of his sponsored bills including prominent pieces of energy legislation such as the *American Clean Energy and Security Act of 2009*. Also, in light of the consistently high margins of victory by which he won reelection, there are hints of representational implications. For example, those who are conscientious and thus more likely to pursue issue specialization may also be more likely to provide substantive policy representation for their constituents, especially given the variance in demand for policy representation across the country (Harden 2016). Further, constituents who are pleased with their elected officials are more likely to reelect them. This idea hints at the incumbency advantage

(Gelman and King 1990). While an explicit test of the representational link is beyond the scope of this analysis, this possibility deserves a closer look.

In sum, the personalities of legislators play a pronounced role in the decisions to pursue issue specialization or not. While all legislators serve on committees at the pleasure of party leaders, and thus have *access* to specialization, not all choose to translate that access into intentional focus on the related issue through their policy work in the chamber. The decision to pursue specialization, then, appears to be heavily influenced by the innate personalities of legislators, with some seeing it as worthwhile, and others not.

Accounting for District Characteristics

Because bill sponsorship and committee work are expressions of legislative behavior and personalities are unique to the legislators themselves, I have restricted my analysis to the Congressional chamber. However, district characteristics have been found to impact Congressional behavior, even beyond any overt representational benefits to constituents (see, e.g., Adler and Lapinski (1997) on district characteristics influencing committee compositions). To investigate whether districts exert any influence on legislators' pursuit of issue specialization thereby confounding the influence of their personalities, I turn now to update the original full specification to account for district characteristics. To do so, I include the following predictors at the district-level: population, gender, race, educational attainment, and average household income. As most of these are count variables on a larger scale than other covariates, they are rescaled by being centered on zero and then divided by two standard deviations. If district characteristics explain the propensity to specialize in a specific issue area, then we might

expect the personalities of legislators to matter less, resulting in not only district characteristics being statistically significant, but also soaking up the explanatory power of the personality indicators. The results are included in Table 3.4, next to a replication of the original full model from Table 3.3 for direct comparison.

The personality indicators shown in the top five rows of both columns remain stable as expected. All five personality indicators are pointing in the hypothesized directions and are of the same substantive magnitudes of effect, compared to the original full model in both Tables 3.3 and 3.4. The effects, which remained significant at the $p < .01$ level, emphasize the impact of conscientiousness, openness, and emotional stability positively impacting the likelihood of issue specialization, with extraversion and agreeableness negatively impacting the likelihood of issue specialization, despite the inclusion of district demographic characteristics. Though only a step in accounting for district characteristics, this second stage test reiterates that even accounting for the influence of districts, legislators are either drawn to or shy away from pursuing specialization in specific issue areas largely as a function of their personalities.

Table 3.4: Accounting for District Characteristics in Issue Specialization

	spec	
	(1)	(2)
Conscientiousness	0.350*** (0.106)	0.341*** (0.109)
Openness	0.813*** (0.123)	0.850*** (0.126)
Extraversion	-0.329*** (0.078)	-0.318*** (0.080)
Agreeableness	-1.454*** (0.194)	-1.496*** (0.198)
Emotional Stability	0.680*** (0.127)	0.684*** (0.130)
Democrat	1.898*** (0.277)	1.822*** (0.289)
DW-NOMINATE	1.691*** (0.273)	1.616*** (0.298)
Seniority	-0.137*** (0.011)	-0.141*** (0.011)
Majority Leader	-0.972*** (0.245)	-0.971*** (0.248)
Minority Leader	-1.228*** (0.241)	-1.275*** (0.248)
Sub. / Sig. Sponsorship	0.023*** (0.005)	0.025*** (0.005)
Party Unity	-0.034*** (0.006)	-0.032*** (0.006)
Delegation Size	0.006 (0.008)	0.007 (0.008)
Majority	0.053 (0.103)	0.017 (0.105)
District Population		-0.636 (0.916)
Male (count)		0.704 (0.842)
White (count)		-0.646 (0.404)
Black (count)		-0.161 (0.297)
Asian (count)		-0.081 (0.182)
Less than H.S.		-0.097 (0.200)
H.S. Graduate or More		0.721 (0.439)
Some College or More		-0.138 (0.681)
Bachelor's Degree or More		-1.681*** (0.573)
Graduate/Prof. Degree or More		0.347 (0.311)
Employed (Civilian)		0.491** (0.235)
Unemployed (Civilian)		-0.126 (0.125)
Average Household Income		0.389* (0.217)
$\alpha_{congress}$	0.01036	9.955e-05
α_{state}	0.15301	1.767e-01
$\alpha_{district}$	0.63757	6.763e-01
Constant	3.651*** (0.802)	3.578*** (0.830)
N	4,040	4,003
Log Likelihood	-2,071.871	-2,025.160
AIC	4,179.742	4,112.319
BIC	4,293.214	4,307.458

*p < .1; **p < .05; ***p < .01. Cell entries are from multilevel logistic regressions. Standard errors are in parentheses. Model one (1) a replication of the original Model 4 in Table 3 above. Model two (2) is the updated specification including the rescaled district characteristics. Two variables include a dropped category due to rank deficiency in the fixed effect model matrix. Specifically, "Gender: Female" and "Race: Other" were dropped.

Conclusion

Legislators in Congress have the opportunity to do many things while serving in office. They can be strategic about aligning their policy work and behavior with their unique contexts to pursue specialization in an issue area. Yet, legislators can choose to expend their limited time, effort and resources elsewhere. In an effort to determine the process and patterns of issue specialization in Congress, which is not well-understood, I offered and tested a theory of the influence of personality on decisions to specialize in an issue area. I found strong and consistent support for my expectations that some legislators, as a function of their personalities, will be more or less drawn to the work required to specialize, even after accounting for district characteristics. Reflecting on the introductory anecdote, Rep. Obey was highest on “conscientiousness” of any other personality trait during his entire tenure in office, as well as in the upper quartile on this personality trait compared to all other legislators, in line with the expectations and findings.

My findings are important for a number of reasons. First, counter to a longstanding assumption in the Congressional literature that all members of Congress specialize in specific issues (Asher 1974), I found that this is likely not the case. Rather, issue specialization is more complicated, requiring an alignment between committee contexts and policy work over a long period of time. Such an arduous process is not pursued by all legislators. And we can get a better sense of who is more or less likely to take the time to specialize, based on personality traits, which do not conflict with more common explanatory factors of legislative behavior. Second, and related, my findings reveal that issue specialization in Congress is highly nuanced. Some legislators will

acquire a great deal of expertise in a given issue area merely by sitting on a committee for a long time, but they may never sponsor a single bill on the issue area related to their committee work. Though seemingly paradoxical, such behavior suggests these legislators are not issue specialists, at least to the same degree as a legislator with the same amount of committee tenure, but who chooses to tailor her policy work to be in alignment with her committee assignment. Third, I demonstrated that though the issue itself does not condition specialization decisions given the prominent role of party leaders conditioning and controlling access to specialization (i.e., committee assignments and tenure), issues across policy behavior and committee jurisdictions must be in alignment to be considered issue specialization. This is important to shed additional light on the aligning of a variety of forms of behavior and institutional contexts in the realm of issue specialization.

While the findings throughout provide an important step forward in understanding the ways legislators marshal a variety of expressions of legislative behavior to pursue individual goals, my study is not without surprises and limitations. First, the findings in Figures 3 and 4 revealed that Democrats are consistently more likely to specialize than Republicans, despite a lack of any expected partisan distinctions in any of the realms of legislative behavior explored (committees or bill sponsorship). This unexpected finding deserves a closer look. Second, there could be a representational link between decisions to specialize and not. Building on the findings of Harden (2016), where some constituencies prefer policy representation over other types of representation, some legislators could see issue specialization as worth the effort if their constituencies demanded it. And finally, a limitation of my study is the narrow time frame explored only in the polarized era of American politics (104th-113th Congress). Though selected due to

the large amount of data needed for the several tests, and most notably the personality measures only existing for this period, future work could build on these findings by extending the period of study.

CHAPTER 4

Issue Ownership, Trespassing, and Policy Representation

The two major political parties in American politics are comprised of sets of fundamentally different political actors, bases of support, and goals in governing (Grossmann and Hopkins 2016). In this vein, recent research has provided some evidence that Democrats are more likely to trespass on issues than Republicans on the campaign trail (Banda 2015; Damore 2004). Trespassing occurs when a candidate prioritizes or focuses rhetoric on issues other than those traditionally “owned” by her party. Further, Republicans tend to look inward and upward to party elites to consolidate ideological preferences in their ranks, resulting in unification around a broad set of Republican and conservative ideals (Grossmann and Hopkins 2016). Though no studies explicitly aimed at probing partisan distinctions in issue ownership and issue trespassing exist, related studies demonstrate the tendency of Republicans to play it more safely by concentrating on owned issues, compared to Democrats’ tendency to focus more freely on issues beyond their party’s nexus of owned issues, thereby trespassing on traditionally Republican-owned issues.²⁶ For example, Banda (2015) found that in competitive

²⁶ Most issue trespassing studies tend to focus on whether candidates are electorally rewarded for trespassing. The findings largely suggest that while candidates may not benefit in the form of winning more votes (Norpoth and Buchanan 1992; Sides 2007), there remain benefits to be had such as long-term agenda setting (Holian 2004), trait ownership (Hayes 2005), and also positive news media attention (Hayes 2008).

elections, Democratic candidates were more responsive to Republican issue agendas, than were Republicans to Democrats.²⁷

While these partisan asymmetries in ownership and trespassing may be surprising, the campaign trail is often filled with lofty promises on which candidates may be unlikely to follow through after the election in office. Thus, we may wish to ask whether these partisan asymmetries in ownership and trespassing translate into differences in actual policy proposals. Do patterns of issue ownership and trespassing continue once candidates are elected, resulting in districts receiving different levels of concentration on party owned issues, dependent on the party of the winning candidate?

Using two original measures of partisan issue prioritization and partisan issue trespassing as strategic expressions of policy representation and a series of regression discontinuity designs, I demonstrate that partisan variance in patterns of ownership are present in the chamber, while minimal evidence is uncovered for intentional trespassing. Across policy portfolios of all U.S. Representatives from the 108th through the 111th Congress (2003-2010), which is an uninterrupted period between redistricting cycles, districts that narrowly elect Democrats receive greater concentration of policy focus on non-owned party issues, while the opposite is the case for districts that narrowly elect Republican legislators. Narrow Republican districts receive a significantly higher concentration of policy focus on partisan owned issues. These differences are most pronounced for districts that elect candidates belonging to the majority party. Further, results are stable across numerous bandwidths of marginal vote shares, underscoring the

²⁷ See Figure 2 in Banda (2015) for a clear rendering of this trend.

robustness of the patterns of issue ownership uncovered across the parties in their policy proposals. However, the second stage reveals little evidence of intentional trespassing behavior, where one party explicitly focuses efforts on the opposing party's owned issues. This suggests that trespassing as a political tactic is likely beholden to the campaign trail. Ultimately, exploring whether patterns of issue ownership and trespassing occur within the chamber is important for gaining a clearer picture of the nuance and quality of representation legislators offer their constituents. And further, this study offers greater understanding of the process by which candidates translate campaigning strategies into governing strategies once they are awarded a seat in government.

Issue Ownership, Trespassing, and Policy Representation

Issue ownership, as formalized by Petrocik (1996), is the idea of political parties “owning” certain issues as a function of prioritizing them more frequently, with the ability and capacity of specific parties to handle these issues reinforced by voters and constituents over time (Ansolabehere and Iyengar 1994; Budge and Farlie 1983; Petrocik, Benoit, and Hansen 2003). Egan (2013) further refined the theoretical foundation of issue ownership by demonstrating parties own certain subsets of “consensus” issues, providing valuable nuance around the idea of issue ownership. Egan (2013, 5) defines consensus issues as those on which a majority of the American public agrees on the ultimate outcome. For example, healthcare is a consensus issue as most Americans want affordable access to healthcare, apart from the process by which the outcome is realized. This is in contrast to “non-consensus” issues such as gun control, where the public is mostly split on the outcome (e.g., tighter restrictions or not). Then, among the set of consensus issues, each party owns a subset. The list of partisan owned consensus issues

generated by Egan (2013, 67) includes a set of seven consensus issues owned by each of the two major parties (14 in total). The duration of parties' ownership of their respective issues spans four and a half decades. More recently, others have deepened an understanding of issue ownership both in the American context (Banda 2016; Goggin and Theodoridis 2017; Therriault 2015), as well as internationally (Dahlberg and Martinsson 2015; Dennison and Goodwin 2015; Tresch, Lefevere, and Walgrave 2015). Regarding strategic patterns, Republicans tend to pursue greater concentration on owned issues by consolidating and pursuing greater ideological homogeneity on broad Republican and conservative issues within their ranks (Grossmann and Hopkins 2016), with Republican voters reinforcing this consistency on issues positions (Barker and Carman 2012). The result is Republicans tending to play it safer by focusing more exclusively on owned issues, compared to Democrats that tend to focus more on a diffuse set of issues, including both owned *and* non-owned (Banda 2015).

Issue trespassing, then, occurs when candidates focus rhetorical and campaign efforts on the opposing party's "owned" issues (Norpoth and Buchanan 1992; Sides 2006; Sigelman and Buell 2004). The logic of issue trespassing goes back as far as Downs (1957, 135), where candidates should be incentivized to trespass on their opponents' issues "to convince voters that their net position is near them," though this strategy may quickly break down as voters often do a poor job of attributing issues to the trespasser, ultimately favoring the owner (Norpoth and Buchanan 1992). While certain indirect benefits have been gained through issue trespassing such as linking candidate issues and traits (Hayes 2005), the ability to set the long-term agenda (Holian 2004), and also positive media exposure (Hayes 2008), the focus of trespassing studies tends to be

on whether such a tactic pays off in the form of electoral dividends. The findings in this regard suggest trespassing is mostly fruitless (Norpoth and Buchanan 1992; Sides 2007). Regarding the *partisan* patterns associated with issue trespassing (e.g., does one party trespass more or less than the other?), the few studies with related findings have found that on average Democrats tend to exhibit trespassing-type behavior more often than Republicans (Banda 2015; Damore 2004; Holian 2004). Regardless of the dearth of research on issue trespassing along party lines specifically, as well as in chamber behavior *post*-election, the findings to date offer a starting point for generating empirically testable expectations.

Before specifying expectations, it is useful to clarify what is meant by “chamber” or “elite” behavior in order to link the candidate-turned-legislator’s behavior to the legislative district, thereby shifting focus from *legislators* to districts comprised of *constituents*. To do so, I build on the idea of multidimensional representation (Eulau and Karps 1977; Griffin and Flavin 2011; Harden 2013, 2016). This work distinguishes between spheres of representative behavior of legislators (not candidates), which can take several forms from descriptive representation often based on racial and ethnic similarities between the legislator and the constituent, to policy representation based on policy work in office, such as bill sponsorship, cosponsorship, and roll call voting. As an example of the variance in representative behavior between the two parties, Jackson and King (1989) found unique patterns of representation through roll call voting on economic issues. Republicans responded more to the party, while Democrats responded more to their constituents. The possibility for members of different parties to offer different patterns of representation may be a function of that which districts require (e.g., Democratic districts

may prefer greater policy representation, while Republican districts may prefer greater alignment with the party), or it may be due to fundamental differences between the parties (Clinton 2006, 399). This adds to the need for greater understanding of precisely how legislators of different parties leverage their behavior in the chamber to act in line with or counter to party, ultimately determining the representation districts get in return. To examine whether trespassing patterns of *candidates* translate into trespassing patterns of *legislators*, ultimately determining the policy focus districts receive, I examine bill sponsorship.²⁸

In light of the research surveyed to this point, there is sufficient reason to expect similar ownership and trespassing patterns to be present in policy representation legislators provide their districts. Specifically, districts with Republican representation should receive greater policy concentration on party-owned issues compared to districts with Democratic representation, which should receive greater policy concentration on non-owned issues. Further, Democratic districts should receive representation with stronger patterns of trespassing behavior compared to Republican districts. From here I specify these testable expectations.

H1: Districts with Republican representation receive higher concentration on party-owned issues through bill sponsorship, compared to districts with Democratic representation.

H2: Districts with Democrat representation receive stronger patterns of trespassing behavior through bill sponsorship, compared to Republican districts.

²⁸ See, e.g., Sulkin (2009) for a similar approach.

Empirical Strategy

To test the expectations above, I leverage a regression discontinuity (RD) design, which is a quasi-experimental method that has enjoyed recent prominence in political research (Eggers et al. 2015; Hainmueller, Hall, and Snyder Jr 2015). I estimate the local average treatment effect of both partisan issue prioritization and partisan issue trespassing through bill sponsorship for a subset of legislators who narrowly won elections, thereby assuming as-if random assignment of partisan legislators to districts. In so doing, it is my goal to assess the level of concentration on party-owned issues as well as the patterns of trespassing districts receive, dependent upon the party of the winning candidate. The idea is that contexts where a candidate from either party narrowly wins an election “should be identical, in expectation, [allowing for comparison of the] behavior of a district’s representative” (Fowler and Hall 2016, 135). Therefore, I am able to look to the behavior of legislators to make inferences about district representation. The RD design is ideal for this analytical set up, given the expectation of issue ownership and issue trespassing occurring discontinuously between the parties.

Data and Variables. The analysis covers policy representation through bill sponsorship in the U.S. House of Representatives from the 108th Congress through the 111th, which is an uninterrupted period between redistricting cycles. I use the Adler and Wilkerson (2013) Congressional Bills Project data containing every sponsored bill in the House over the study period to build my measures of partisan issue prioritization and partisan issue trespassing discussed below. Individual bill issues are coded following the Policy Agendas Project coding scheme (Baumgartner and Jones 2010). The Volden and Wiseman (2014) legislator effectiveness data are used for individual-level legislator

variables. Finally, the Fowler and Hall (2016) Congressional election vote share data are used to create the running variable central to the RD design. A further benefit of the study period is an equal balance of partisan control of the chamber, with two Congresses controlled by Republicans (108 and 109), and two Congresses controlled by Democrats (110 and 111).

In RD designs, there are two key variables with a third variable occurring as a result of the other two: the outcome variable, running variable, and then the treatment variable (or condition). The outcome variable for the first stage exploring issue ownership is the partisan issue prioritization score for each legislator, which is an original measure using individual bill sponsorship portfolios to map the degrees to which legislators are prioritizing their parties' owned issues, relative to average chamber behavior in a single Congress. The logic and construction of this measure are introduced and unpacked below.²⁹

The running variable is the share of the two-party vote cast for Republican candidates in each district. The vote shares are normalized to be centered at 0.0, which is exactly 0.50 (or 50%) of the votes cast. Any value over 0.0 (or 0.50) is added to 0.50, suggesting the legislator is assigned to the "treatment" condition of being a Republican. For example, if a legislator receives 56% (or 0.56) of the Republican share of the two-party vote, then she would be at the 0.06 point along the running variable. Inversely, a

²⁹ The construction of the partisan issue trespassing measure is an inverted version of the partisan issue prioritization measure. It is discussed in the *Exploring Issue Trespassing* section towards the end.

legislator receiving 45% of the Republican share of the two-party vote would be in the “control” condition of being a Democrat, and would be at the -0.05 point along the running variable. The running variable extends from -0.50 to 0.50, which is the same as extending from 0.0 to 1.0 for total two-party vote shares. Importantly, in “sharp” RD designs, such as this one, there is no need to specify a treatment variable, as assignment to treatment occurs deterministically as units score any value over the cut-point on the running variable, as previously described. Finally, for select specifications including control covariates for comparative purposes below, control covariates include, majority party status, seniority (terms served), power committee membership, delegation size, and legislator ideology (DW-NOMINATE).

Partisan Issue Prioritization (PIP) Scores. The outcome variable for the first stage exploring issue ownership is the partisan issue prioritization score. This is an original measure of policy priorities using individual bill sponsorship portfolios measures the degrees to which legislators prioritize their parties’ owned issues, relative to the average patterns of sponsorship in the chamber. Building on the concept of “consensus issues,” I draw on Egan’s (2013) definition, which is an issue on which a majority of the public agrees on the ultimate outcome. Of these consensus issues, which are discussed above, Egan generates a subset of issues owned by each party as a function of survey responses, which are reinforced by the parties over time. The 14 owned consensus issues used in this analysis are those which have been consistent since the 1970s.³⁰ In this measure, it is my

³⁰ I incorporate only the statistically significant average owned issues, shown in Table 3.2 (Egan 2013, 67). These issues are: energy, education, jobs, healthcare, social security,

goal to capture the issue prioritization of every legislator by calculating their policy focus on owned consensus issues compared to non-owned issues, relative to the average member's behavior in the chamber.

To measure partisan priorities through bill sponsorship, I begin with the Adler and Wilkerson (2013) Congressional Bills Project dataset including all sponsored bills in the study period from the 108th Congress to the 111th Congress.³¹ First, I consider a

poverty, and the environment for Democrats. And for Republicans, the seven owned issues are: domestic security, military, immigration, inflation, crime, foreign affairs, and taxes.

³¹ In addition to the discussion in the previous section, there are a few analytical benefits to using bill sponsorship as an expression of policy representation in the context of issue ownership. First, sponsored bills can be readily tied to individual issues over time, allowing for efficient mapping of individual priorities as well as variance in levels of concentration on issues. Second, each bill's individual issue with an individual sponsor attached to it should result in a level of ownership over the issue by the bill's sponsor, implying a degree of dedication to the issue by the sponsor. Third, bill sponsorship offers a first look at that which is important to a legislator. This is related to the benefits of observing one of the few forms of chamber behavior relatively free from the influence of the majority party. A legislator may sponsor as many bills on any topics she wishes, offering a relatively "selection-free" look at individual level policy priorities. Finally, given that there are seven partisan-owned consensus issues explored for each party, issues can be further condensed into two broad categories of either owned or non-owned

legislator sponsoring a general “priority” (*P*) bill, if a legislator sponsors a bill on a party-owned issue in a given Congress. For example, if *Legislator G* is a Democrat and sponsors an environment bill in the 109th Congress, then she would be sponsoring a *P* bill in that Congress. However, sponsoring a defense bill in that same Congress, *Legislator G* would be sponsoring a “non-priority” (*NP*) bill, given that military and domestic security have been Republican-owned issues on average since the 1970s. *Legislator G* would also be sponsoring an *NP* bill if she sponsored a bill on an issue neither of the parties owned, such as transportation. In total, there are 14 *P* bill issue categories – seven Republican and seven Democratic – based on the list generated by Egan (2013, 67), and coded following the *Policy Agendas Project* major issue coding scheme (Baumgartner and Jones 2010).³² The result is a collection of two broad bill sponsorship categories within each legislator’s individual policy portfolio in a single Congress: *P* bills and *NP* bills, with the *P* bills corresponding to a party-owned issue for legislators belonging to the “owning” party. This step anchors the partisan issue priorities scale, allowing all legislators to be directly comparable, regardless of party affiliation.

within individual bill sponsorship portfolios of legislators, allowing for the categorization and aggregation of legislators’ individual policy representation.

³² Government Operations (code: 20) and “NA” (code: 99) bills were excluded from this analysis, given the lack of comparison to substantive issue areas, that could be *P* or *NP*, coupled with the ubiquitous functional responsibilities of keeping the government operating (i.e., Government Operations bills).

Once the *P* and *NP* bills are classified for all issues across all legislators and all Congresses, I generate partisan issue prioritization (PIP) scores for each legislator based on total sponsorship activity in each Congress. I consider the sponsorship frequencies and topics of bills to capture the unique priorities of legislators. The PIP scores, then, capture the degree to which members prioritize their party-owned issues based on the weighted frequency of legislators' sponsored bills pertaining to either party-owned priority (*P*) bills or non-priority (*NP*) bills, relative to the entire chamber in a single Congress. Each member gets a PIP score per Congress, with positive values indicating the legislator is weighting partisan issue *P* bills more heavily than the average legislator in the chamber, accounting for all types of bills that could be sponsored. Negative values indicate legislators are weighting *NP* bills more heavily than the average legislator, accounting for all types of bills sponsored. Thus, the measure is capturing the degree of partisan issue prioritization accounting for the sponsorship dynamics unique to a single Congress. Finally, the PIP scores are standardized by being centered on zero and then divided by two standard deviations to allow for direct comparison and interpretation across all Congresses, regardless of fluctuations in sponsorship frequency (Gelman 2008). The categorization and weights of the bills are shown in Table 4.1.³³

³³ As discussed below, the construction of the partisan issue trespassing (PIT) measure is the same as the PIP measure, only inverted to measure the relative focus of a legislator on the *opposing* party's owned issues.

Table 4.1: Bill Categorization and Weights

<i>Bill</i>	<i>Topic</i>	<i>Weight</i>
Introduced	$\begin{cases} \text{Non – Priority (NP)} \\ \text{Partisan Priority (P)} \end{cases}$	$\begin{cases} -1 \\ 1 \end{cases}$

The PIP score for *Legislator_i* is given in *equation 1* as,

$$PIP_{it} = \left(\frac{\sum Bill_{it}^P}{\sum_{j \neq i} BILL_{jt}^P} - \frac{\sum Bill_{it}^{NP}}{\sum_{j \neq i} BILL_{jt}^{NP}} \right), \quad (1)$$

where the first term is the sum of partisan priority bills, $Bill_{it}^P$, sponsored by legislator, i , in a single Congress, t , divided by the sum of partisan priority bills introduced by all other legislators, j , in that same Congress, $BILL_{jt}^P$, when $j \neq i$. Subtracted from this total, the second term is similar, but reflecting the sum of non-priority bills introduced by the same legislator in the same Congress, $Bill_{it}^{NP}$, relative to the non-priority bills summed across all other legislators in that same Congress, $BILL_{jt}^{NP}$, when $j \neq i$.

To illustrate the variance being explained by movement in the measure in simple mathematical terms, consider the following example. *Legislator S* introduces 10 P bills in a session where there were 100 total P bills introduced by all other legislators, and 15 NP bills when there were 200 NP bills introduced. Though *Legislator S* introduced more NP bills than P bills (15 compared to 10), the measure would still generate a positive PIP score indicating *Legislator S's* greater focus on P bills relative to the pattern of sponsorship activity in the chamber.³⁴ Thus, the PIP score is not simply comparing *Legislator S's* sponsorship behavior to herself, but is capturing the variance in

³⁴ 10:100 = .1 vs. 15:200 = .075; .1 is greater than .075.

sponsorship activity for the individual member in light of the unique chamber in which she is operating given the need to account for unique patterns in at that point in time. Importantly, in attempting to capture degrees of policy prioritization through bill sponsorship, the need to account for owned issues in relation to non-owned issues in a single portfolio, while accounting for average chamber behavior precludes the use of a simpler measure. A simpler measure, such as proportions of sponsorship portfolios dedicated to owned issues would fail to capture individual patterns of prioritization given the need to account for trends that may increase the sponsorship rates in a given issue area at a moment in time. For example, there may be an uptick in bill sponsorship on the issue of terrorism in the wake of a terrorist attack. Simply looking at a single legislator's proportion of bills dedicated to terrorism would not capture the overall increase and focus on the issue of terrorism in the entire chamber. In such a case, it would be difficult to say whether the increase in a legislator's terrorism bill sponsorship were due to party responsiveness or prioritization, or in response to the recent terrorist attack. Thus, the individual PIP scores must be normalized to account for such chamber dynamics to understand individual patterns of prioritization. And while the scores are generated for individual legislators belonging to individual parties, the broad *P* and *NP* categories allow legislators of both parties to be placed on the same scale of prioritizing either their party's owned issues (*P*) or not (*NP*). This allows scores to be directly comparable across legislators of both parties, as well as over time. Importantly, the measure allows legislators to sponsor both *P* and *NP* bills, in that there are Democrats with interest in defense issues and Republicans with interest in environment issues to be sure. The scores are thus based on a weighting of the two *P* and *NP* categories in relation to each other as

well as in relation to the sponsorship on the same issues in the rest of the chamber to account for the diversity of individual bill sponsorship portfolios. The result is the PIP score, which is a single standardized and weighted indicator capturing the priorities of each legislator in the Congress.

This original measure is valuable in that it considers all legislators operating and competing in the same policy space at a specific point in time. Sponsored bills resulting in aggregated sponsorship portfolios for each legislator should reflect the full scope of individual priorities, given the guarantee of only two years at a time at the policy table for members of the U.S. House of Representatives. With an unknown electoral future, legislators should be motivated to pursue the full scope of their policy priorities over the course of a single Congress. Thus, the PIP scores are calculated for all legislators in individual Congresses (i.e., “member-Congress”). Also, bill sponsorship considers the priorities of all legislators, not just a select few who contribute to policy output or are members of the majority party, and thus more likely to influence the agenda or federal allocations of dollars, for example. By considering all legislators, generalizable inferences about all legislators’ behavior are possible. Further, there is evidence suggesting legislators use bill sponsorship strategically and take it seriously (Rocca and Gordon 2010; Woon 2008). See the density of the standardized PIP scores for the 108th-111th Congress in Figure 4.1, with an overlaid normal distribution for comparative purposes. The descriptive statistics for the standardized PIP scores during the same period are presented in Table 5 in the Appendix.

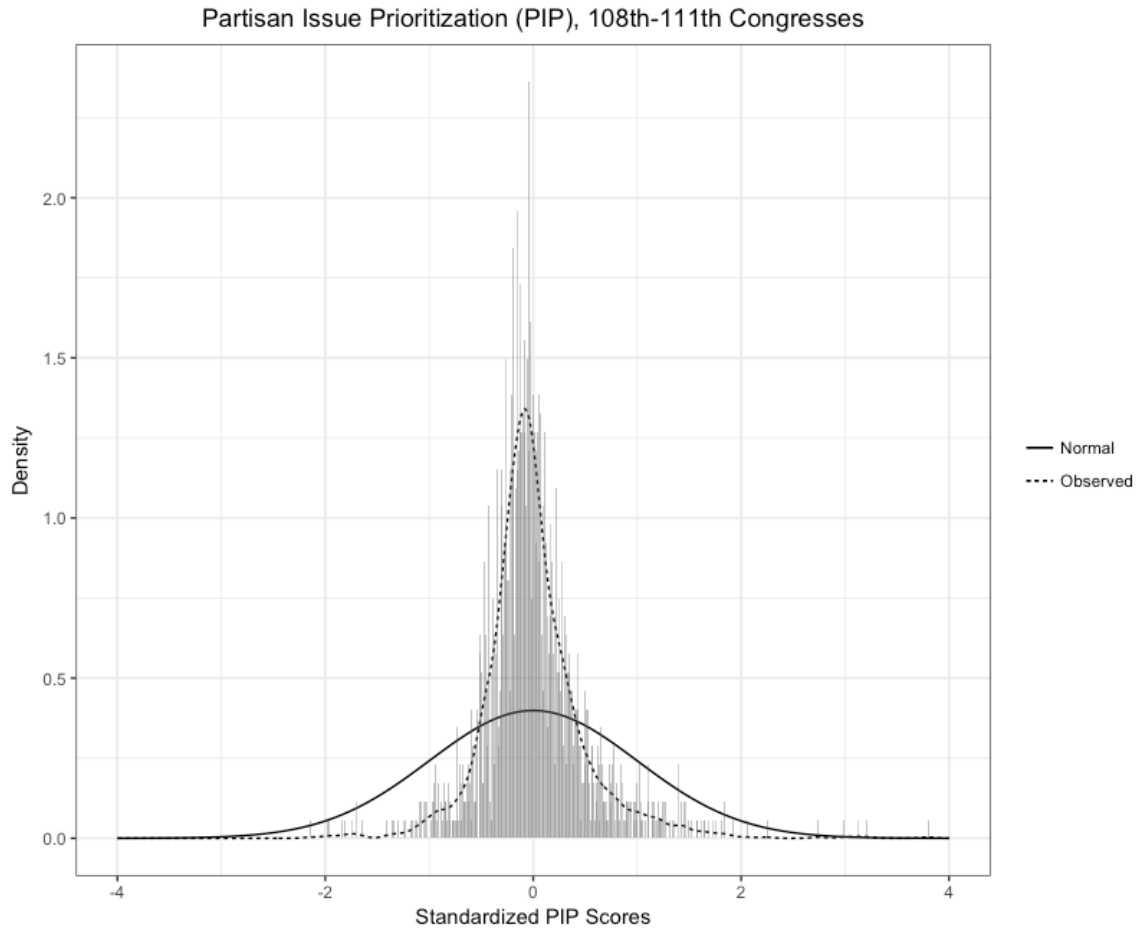


Figure 4.1: Distribution of PIP Scores, 108th–111th Congress

Note the distribution of PIP scores across the entire chamber and study period (the 108th-111th Congress) clustered tightly around the 0.0 midpoint of the distribution. As such, Figure 4.1 has a high degree of face validity, as most legislators' sponsorship portfolios contain a mixture of both owned and non-owned issues as noted above given the tradeoff in prioritizing specific issues. Relatively few legislators are extreme in either direction of exclusive focus on either owned or non-owned issues.

The measure is validated in detail in the Appendix across numerous tests and a variety of individual level indicators, including seniority, majority and minority party status, and party affiliation. Further, the validation strategy demonstrates the PIP scores

are accurately predicted as a function of party affiliation (1=Democrat and 0=Republican) across all party-owned issue categories as expected. Increased bill counts of owned issues positively and significantly condition the estimated coefficient of partisanship for Democrats on Democratic-owned issues seen in the positive slopes across all issues in Table 6 and Figures 6 and 7, and negatively and significantly conditions the impact of partisanship for Republican-owned issues seen in the negative slopes for all issues in Table 7 and Figure 8. The results across numerous validity checks suggests that the PIP scores are capturing unique and expected variance in partisan issue priorities of legislators.

Modeling Strategy. The RD setting used in this analysis to explore patterns of issue ownership and trespassing received by districts is considered “sharp,” in that assignment of units to the treatment condition is deterministic. Being above a specific value, or cut-point, automatically places units in the treatment condition, whereas values below the cut-point place units in the control condition. The continuum of values ranges along the running variable, which is considered the underlying driver placing units in either condition. For present purposes, I suggest that narrow electoral margins satisfy the as-if random assignment of partisan legislators, which represent treatment or control conditions, to a district. Such an assumption is a common approach in similar studies (Eggers et al. 2015; Fowler and Hall 2016; Lee 2008).³⁵ The running variable is the

³⁵ This assumption is not without critique (Caughey and Sekhon 2011; Grimmer et al. 2011). However, more recently, close electoral margins have been shown to be plausibly as-if random settings in sharp RD designs where assignment to treatment is deterministic

Republican party vote share in an election, with the cut-point at 50, though normalized to be zero, suggesting a Republican vote share greater than 50% places units in the treatment condition with Republican representation, whereas values below the 50% cut-point places units in the control condition with Democratic representation. The running variable is modeled as a first-order local polynomial linear regression for each side of the cut-point for those who narrowly won elections, similar to other approaches (Eggers and Hainmueller 2009; Hahn, Todd, and Van der Klaauw 2001; Imbens and Lemieux 2008).³⁶

Given the subset of narrow electoral outcomes under consideration as many elections are not narrow, such an assumption of as-if random assignment of a partisan legislator to a district is referred to as local randomization (Lee 2008), and is a plausible assumption in the sharp RD setting, where assignment to treatment is determined by

(de la Cuesta and Imai 2016), such as my approach here. Another commonly cited issue with such an application of RD design in the narrow electoral margins context is the selection of bandwidths. As addressed in greater depth below, I utilize “data-driven” methods of selecting bandwidths, rather than “researcher-driven.” This data-driven approach with statistically desirable properties (Calonico, Cattaneo, and Titiunik 2014; Imbens and Kalyanaraman 2012), while also strengthening estimation and inferences.

³⁶ Further validating the use of the RD design for this study, the descriptive plots in the Appendix demonstrates the general pattern of Republicans (treatment) generally focusing on owned issues (positive PIP scores), compared to Democrats (negative PIP scores), across a range of narrowly elected legislators.

values along the running variable (de la Cuesta and Imai 2016).³⁷ The range of values along the running variable, which determine both the subset of legislators under consideration and assignment to treatment, is called a bandwidth. The selection of bandwidths is often a tricky part of RD designs (Calonico, Cattaneo, and Titiunik 2015b, 40). Therefore, as bandwidth selection can be subjective leading some to question results, I utilize recent developments in “data-driven” bandwidth selection techniques, allowing an optimal bandwidth to be automatically selected based on the distribution of the data, rather than potentially arbitrarily by the researcher. This guards against several threats to estimation and inference, including, “lack of objectivity, lack of comparability, and lack

³⁷ In RD designs, two key assumptions are valuable to highlight. First, the conditional independence assumption holds that units do not self-select into the treatment condition given the underlying driver of vote shares determining assignment to treatment (Hahn, Todd, and Van der Klaauw 2001). And second, the constant treatment effects assumption holds that potential outcomes are constant at the cut-point, where assignment of a legislator to a hypothetical district is equally as likely for either party (Fowler and Hall 2016). For present purposes, differences in levels of concentration on party-owned issues between the treatment and control conditions can be attributed to differences in partisanship given the deterministic assignment to treatment and control conditions as a function of vote shares (de la Cuesta and Imai 2016).

of control over the researcher's discretion" (Cattaneo and Vazquez-Bare 2016, 137).³⁸ Specifically, I use a mean-squared errors (MSE) approach to compute optimal global bandwidths based on the data.³⁹ To ensure the validity of my approach to bandwidth selection, following the main analysis I offer seven additional specifications of the model using seven different bandwidths based on other data-driven selectors as a check on the main findings. The results, which are robust to all alternative bandwidth specifications, are presented in Table 4.4.

Ultimately, it is my goal to understand whether patterns of issue ownership and trespassing are present in the policy proposals of legislators, impacting the policy representation districts receive as a function of the party of the winning candidate. Aided by the as-if random assignment of a partisan legislator to a district, I am able to directly compare legislators' bill sponsorship behavior by estimating the local average treatment effect of a legislator's party on their level of partisan issue prioritization.⁴⁰ I model the

³⁸ For more, see DesJardins and McCall (2008) and Imbens and Kalyanaraman (2012). See also Calonico, Cattaneo, and Titiunik (2014) for a thorough overview of various methods and benefits of data-driven approaches to optimal bandwidth selection.

³⁹ See Calonico, Cattaneo, and Titiunik (2015a, 41) for an introduction to and detailing of this approach.

⁴⁰ Adding support for this approach, Fowler and Hall (2016, 135) note, "The intuition is that situations where Republicans barely win should be identical, in expectation, to situations in which Democrats barely win, so we can compare the [behavior] of a district's representative in these two situations to estimate...the extent to which

running variable as a first-order local polynomial linear regression.⁴¹ For each side of the cut-point, I regress partisan issue prioritization (trespassing) scores on a first-order polynomial in the Republican share of the two party vote. The average treatment effect at the cut-point 0.0, τ_{RDD} , in the marginal vote share, MVS_i , is given as,

$$\tau_{RDD} = E[PIP_i(1) - PIP_i(0)|MVS_i = 0]. \quad (2)$$

The discontinuity at τ_{RDD} , captures the difference in levels of party-owned issue prioritization received by a district as a function of the treatment of partisanship, determined by the running variable of Republican share of the two-party vote (+ or -).

Exploring Issue Ownership

Per H1, if there is a difference between the partisan legislators in their level of concentration on owned issues, pointing to broader patterns of issue ownership within the chamber, then the coefficient for τ_{RDD} in Table 4.2 will be statistically significant. The significance of τ_{RDD} would suggest that partisan legislators differ in their use of bill sponsorship to prioritize party-owned issues, ultimately suggesting the level of concentration on party-owned issues received by a district is dependent on the winning candidate's party. Given the directional expectation, the coefficient for τ_{RDD} should be positive, suggesting that districts that elect Republican representatives receive Republican

Democratic and Republican legislators would differentially represent the same districts at the same time.”

⁴¹ In Figure 9 in the Appendix, I demonstrate the robustness of my results to the alternative and common specification in similar studies modeling the running variable as a fourth-order polynomial (Fowler and Hall 2016; Lee 2008).

issue priorities more than districts that elect Democratic representatives receive concentrations on Democratic owned issues.

As a starting place, consider models one and two from the full dataset. In model one in Table 4.2, the effect of the party (τ_{RDD}), 0.058, is statistically indistinguishable from zero, implying there is no difference between the parties. I revisit this at length below. But first, including control covariates in model two, τ_{RDD} shifts to a significant coefficient of 0.187. These findings suggest there may be a discontinuity between the treatment and control conditions, such that differential effects in policy representation are dependent on the winning candidate's party, with Republican districts receiving greater concentration of party-owned issues than non-owned. The local mean of prioritizing owned issues for Democrats is less than 0.0, suggesting Democrats prioritize non-owned issues to a greater degree than Republicans.

Table 4.2: The Effect of Party on Partisan Issue Prioritization

	Issue Prioritization (PIP Scores)	
	(1)	(2)
Effect of Party (τ_{RDD})	0.058 (0.080)	0.187* (0.082)
Covariates	N	Y
CI Lower Bound	-0.099	0.027
CI Upper Bound	0.215	0.347
N	1736	1721
$N_{-}^{Control}$	156	152
$N_{+}^{Treatment}$	242	220

Note: * $p < .05$. Cell entries are estimates from local first-order polynomial regressions fit to control and treatment groups with triangular kernel. They show the discontinuity in partisan issue prioritization through bill sponsorship, which is estimated at the bandwidth 0.10 computed from the MSE bandwidth selector mentioned above (Calonico, Cattaneo and Titiunik 2015a). Standard errors included in parentheses.

Note that, despite the lack of significance in the non-covariate model, across both models, Republican districts still seem to be receiving higher concentration of party-owned issues in their representatives' policy representation compared to Democratic districts, signified by the positive coefficients for τ_{RDD} in both specifications. To

reiterate, positive values in the partisan issue prioritization scores suggest a greater focus on party-owned issues, where negative values indicated greater focus on non-owned issues.

Considering the Power of the Majority Party

Does a district that elects a member to the majority party receive a different pattern of policy representation? The quest for evidence of ownership thus far has failed to explicitly consider the role of the majority party, despite its conditioning grip on the opportunities for legislators to *realize* their policy agendas within the chamber (via assignment to and remainder on committees (Grimmer and Powell 2013) and also determining policy outcomes (Aldrich and Rohde 2000), for example). This tight majority party control can ultimately influence the policy representation legislators can offer their districts (Clinton 2006). Membership in the majority may mute the variance in patterns of ownership hinted at in the previous stage by eliminating the need for either party to be calculated or to act strategically. Yet, on the other hand, majority party membership could exacerbate these patterns given the ability of majority party members to act with relative freedom. Such an exploration considering only legislators who are acting as majority party members, though still comparing Republicans and Democrats, should add further clarity to the extent of differential patterns of issue ownership received by districts, if such patterns exist.

To do so, I restrict the data to include only legislators acting within the safety of the majority party in an updated specification. This disaggregation and re-estimation step is possible without a threat to inferences given the inclusion of two Congresses where each party is in the majority (Republicans = 108th and 109th; Democrats = 110th and

111th). As such, in this second stage, I consider only the behavior of those while sitting in the majority. Upon disaggregating by majority party status, I specify the original local first-order polynomials without covariates (1) and with covariates (2), in line with other similar studies (e.g., Eggers and Hainmueller 2009). The results are presented in Table 4.3, followed by two figures visually depicting the impacts without and with covariates in Figures 4.2 and 4.3, respectively.

Table 4.3: The Effect of Party on Partisan Issue Prioritization, Majority Party

	Issue Prioritization (PIP Scores)	
	(1)	(2)
Effect of Party (τ_{RDD})	0.244* (0.100)	0.369* (0.105)
Covariates	N	Y
CI Lower Bound	0.048	0.163
CI Upper Bound	0.440	0.575
N	955	945
$N_{Control}^-$	74	73
$N_{Treatment}^+$	58	57

Note: * $p < .05$. Cell entries are estimates from local first-order polynomial regressions fit to control and treatment groups with triangular kernel for majority party members only. They show the discontinuity in partisan issue prioritization through bill sponsorship, which is estimated at the bandwidth 0.076 computed from the MSE bandwidth selector. Standard errors are included in parentheses.

In limiting the examination to only majority party members, the evidence of variance in patterns of ownership across the parties hinted at in the previous model in Table 4.2 is more pronounced in both models without *and* with covariates in Table 4.3, as would be expected in a quasi-experimental context (i.e., there is no need to control for exogenous factors given the assumption of as-if random assignment of a partisan legislator to a district). Republican districts (treatment) receive higher concentration of party-owned issues from their narrowly elected majority party members, whereas districts electing majority party Democrats receive greater focus on non-owned issues. The significant coefficient for τ_{RDD} of 0.244 in the more conservative specification without

covariates included in column 1 in Table 4.3 suggests that the average Republican's PIP score is about half of a standard deviation above the mean PIP score of 0.0033.

In Figures 4.2 and 4.3, the gray points represent each legislator's PIP score. The lines represent the linear polynomial fit for each group, based on the bandwidth used to estimate the results shown in Table 4.2. The patterns in both Figures reveal that Republican districts receive a higher concentration on party-owned issues compared to Democratic districts. Majority party Democratic legislators have PIP scores below the 0.0 cut point at the local point of discontinuity on the X-axis, and majority party Republican legislators have PIP scores above the 0.0 cut point at the local point of discontinuity.

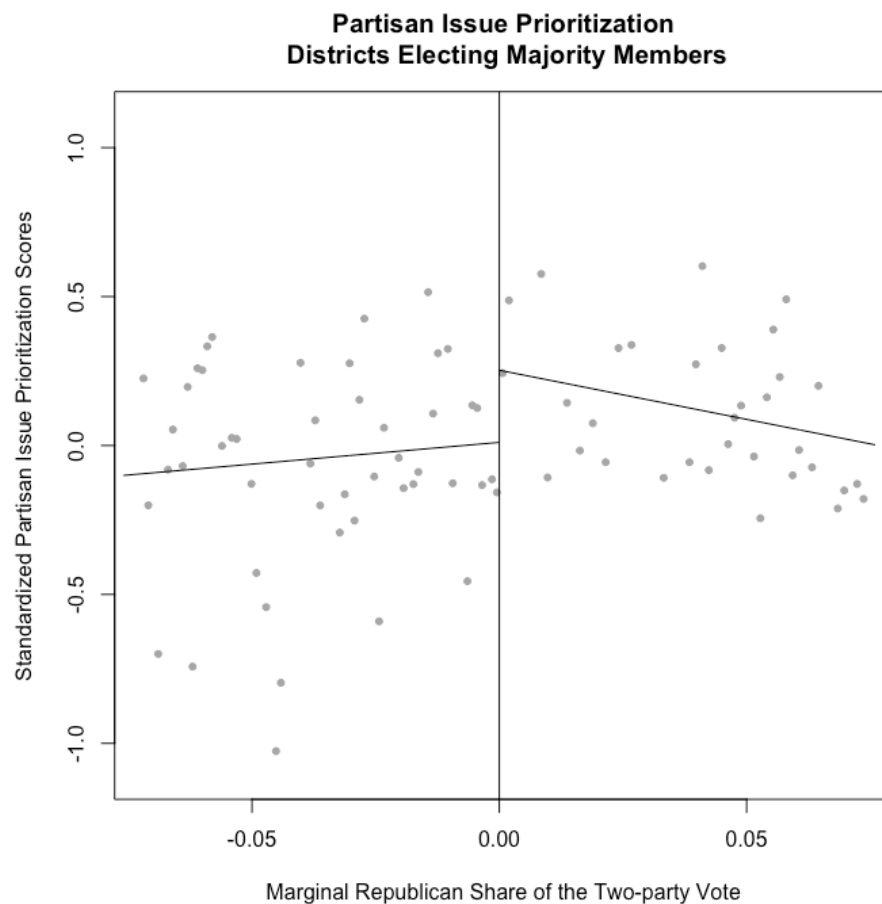


Figure 4.2: Majority Party Discontinuity Point (No Control Covariates)

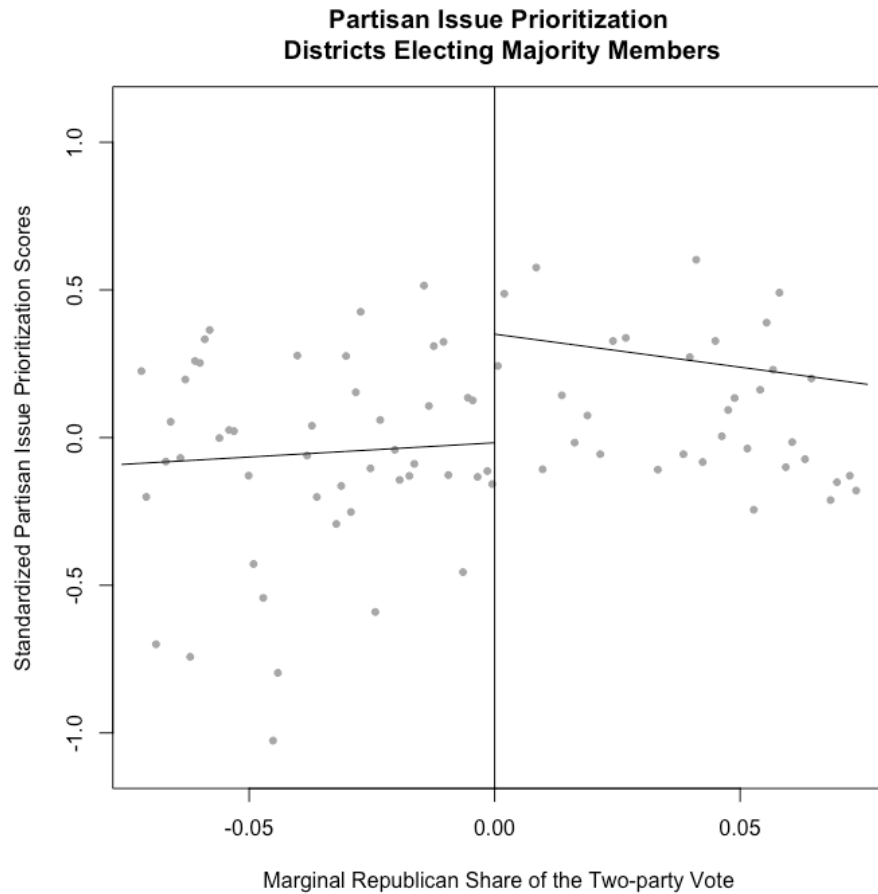


Figure 4.3: Majority Party Discontinuity Point (With Control Covariates)

The narrowest Republican districts concentrated around the cut point of vote shares receive the highest degree of party-owned policy representation from their legislators. Democrats concentrated around the 0.0 cut-point of the marginal vote shares prioritize non-owned issues as expected, though less than safer Democrats to the far left of the X-axis along the running variable. This, along with the lower PIP scores for safer Republicans at the far right of the X-axis, suggests that electorally vulnerable members of both parties prioritize party-owned issues more (or at least prioritize non-owned issues less), compared to more electorally secure legislators in both parties. Importantly, electoral security is beyond the scope of this analysis, in that interpretation of RD output

must remain at the discontinuity point, given that it is the point of assumed as-if random assignment of partisan legislators to districts. Future work should more explicitly probe the electoral security aspect of differential patterns of policy representation received by districts.

Comparing Across Multiple Bandwidths

As alluded to throughout, a critique of RD designs is the perception of “ad-hoc” selection of the bandwidth, which is the neighborhood around the discontinuity cut-point. This neighborhood is the sample on which RD estimates are based, and retain the potential to bias the estimates in favor of the researcher. An alternative to “researcher-driven” bandwidth selection, which bypasses the subjectivity in bandwidth selection, is a “data-driven” approach, as used in this analysis (Cattaneo and Vazquez-Bare 2016). The intuition behind mean squared error (MSE) data-driven bandwidth selectors as initially introduced by Imbens and Kalyanaraman (2012), is to allow the bandwidth, h , to be generated as a function of the data directly.⁴² The neighborhood around the cut-point (i.e., the bandwidth) is derived, conditioned on the full sample of data, n . The other type of data-driven bandwidth selector is the coverage error rate (CER), which was developed after the MSE approach and is beneficial when MSE is suboptimal resulting in smaller coverage error. Distinctions and discussion on the properties of these two approaches are addressed at length in Calonico, Cattaneo and Farrell (2016).

⁴² This follows the form, $h = C \cdot n^{\frac{-1}{(2p+3)}}$, where C is a constant, n is the sample size, and p is the polynomial order (See Cattaneo and Vazquez-Bare (2016) for a thorough overview of the MSE bandwidth selectors).

To check the robustness of my main model findings above, I generate a different bandwidth based on seven alternative bandwidth selectors using both MSE and CER. The benefit of this approach is to guard against any threat of researcher bias as well as ensure the neighborhoods around the cut-point are not differentially leading to contradictory findings. Practically, by shifting the neighborhoods around the cut-point, I am looking at different groupings of legislators, though still within the “narrow margin” range centered around 0.0 of the Republican share of the two-party vote. The bandwidths, then, reflect the % of vote shares in either direction from the 0.0 cut-point.⁴³

For the sake of consistency and brevity, I replicate the descriptions for each of the seven main bandwidth selectors based on iterations of the MSE and CER classes introduced in Calonico et al. (2017).⁴⁴ Specifically, “*msetwo* specifies two different MSE-optimal bandwidth selectors (below and above the cutoff) for the RD treatment-effect estimator. *msesum* [the same bandwidth produced from *msecomb1*] specifies one common MSE-optimal bandwidth selector for the sum of regression estimates (as opposed to the difference thereof). *msecomb2* specifies median (*msetwo*, *mserd*, *msesum*) for each side of the cutoff separately. *cerrd* specifies one common CER-optimal bandwidth selector for the RD treatment effect estimator. *certwo* specifies two different

⁴³ For example, $h = 0.05$ is a neighborhood of those up to 5% over the cut-point, or 55% share of the Republican vote as well as those with down to 5% below the cut-point, or 45% share of the Republican vote.

⁴⁴ As I quote directly from Calonico et al. (2017), I include their shorthand names for each and use these to reference the specific bandwidth selectors in Table 4.4.

CER-optimal bandwidth selectors (below and above the cutoff) for the RD treatment-effect estimator. *cersum* [the same bandwidth produced from *cercomb1*] specifies one common CER-optimal bandwidth selector for the sum of regression estimates (as opposed to the difference thereof). And *cercomb2* specifies median (*certwo*, *cerrd*, *cersum*) for each side of the cutoff separately” (Calonico et al. 2017, 383).

With the intuition behind and benefits of different data-driven bandwidths introduced, I re-specify the model in Equation 2 and present the different estimates of the local average treatment effect, τ_{RDD} , for those in the majority party, based on the findings from Table 4.3. The data-driven bandwidth selectors, which produced a range of different combinations of bandwidths ranging from 0.048 (4.8%) to 0.104 (10.4%), are presented in Table 4.4. In the output in Table 4.4, we are looking for relatively stable magnitudes of effect for τ_{RDD} , as well as stability in statistical significance, suggesting the main model findings are not a product of biased bandwidths, but are actually capturing real information driving substantive political phenomena.

Table 4.4: Comparing τ_{RDD} Across Multiple Bandwidths

Bandwidth Selector (Bandwidth(s))	Issue Prioritization (PIP Scores)		
	τ_{RDD} (SE)	CI Lower	CI Upper
MSEtwo (0.104, 0.068)	0.257** (0.099)	0.062	0.452
MSEsum/MSEcomb1 (0.067)	0.227** (0.105)	0.021	0.433
MSEcomb2 (0.077, 0.068)	0.236** (0.103)	0.035	0.438
CERrd (0.054)	0.230** (0.117)	0.001	0.460
CERTwo (0.074, 0.048)	0.260** (0.118)	0.029	0.491
CERsum/CERcomb1 (0.048)	0.267** (0.126)	0.020	0.513
CERcomb2 (0.054, 0.048)	0.241* (0.124)	-0.001	0.484

Note: **p < .05, *p < .10. Cell entries are estimates from local first-order polynomial regressions fit to control and treatment groups with triangular kernel for majority party members only, with no covariates included per the ideal RD design. Each row corresponds to a different bandwidth selector.

Across the bandwidths in Table 4.4, all of which were selected using “objective” methods (Calonico et al. 2017), estimates of τ_{RDD} are strongly supportive of the main findings in Table 4.3. Each estimate of the treatment effect of party on partisan issue

prioritization is substantively similar across each bandwidth, with stability in statistical significance as well, with the exception of the second combined Coverage Error Rate bandwidth selection (“cercomb2”), which had a p-value just shy of the conventional significance level (0.051).

Exploring Issue Trespassing

To this point, I have uncovered variance in policy representation patterns across the parties, where districts narrowly electing a Republican are more likely to receive greater concentration on owned issues relative to districts that narrowly elect Democrats, which receive greater concentration on non-owned issues.

In light of the support for partisan variance in issue ownership per H1, I transition in this final section to test H2, which explores issue *trespassing*, which is an active and intentional effort to focus policy representation on the *opposing* party’s issues. This is different than focusing on a wide array of issues including both owned and non-owned. As such, to explore whether patterns of Democrats actively trespassing on the campaign trail exist in the chamber, I turn now to explicitly test for patterns of trespassing in chamber behavior, to determine whether districts receive different levels of focus on opposing party issues dependent on the party of the winning candidate.

To do so, I generate a new partisan issue trespassing (PIT) measure by inverting the PIP measure, where positive values indicate greater concentration on opposing party owned issues compared to all other issues, relative to the average member in the given Congress. For example, if a Republican legislator had a positive PIT score, this would suggest that the Republican focused on Democratic issues to a greater degree than all

other issues, implying a concerted effort by the Republican to trespass on Democratic issues.

With the new PIT measure in hand, I proceed as before, estimating the local average treatment effect of party (τ_{RDD}) on partisan issue trespassing. If patterns of trespassing exist, then the effect of party should be significant with *and* without control covariates included in the specification, given the value of the RD design assuming as-if equal probability of being in the treatment or control condition as a function of narrow electoral margins. See the model output for districts electing majority party members only (given the findings and discussion in Tables 4.3 and 4.4) in Table 4.5.

Table 4.5: The Effect of Party on Partisan Issue Trespassing, Majority Party

	Issue Trespassing (PIT Scores)	
	(1)	(2)
Effect of Party (τ_{RDD})	-0.190 (0.113)	-0.277* (0.121)
Covariates	N	Y
CI Lower Bound	-0.412	-0.515
CI Upper Bound	0.032	-0.039
N	955	945
$N_{-}^{Control}$	94	91
$N_{+}^{Treatment}$	91	83

Note: * $p < .05$. Cell entries are estimates from local first-order polynomial regressions fit to control and treatment groups for majority party members only. Standard errors are included in parentheses.

Similar to the full specification above in Table 4.2, the effect of τ_{RDD} is insignificant without covariates included (column 1), suggesting any visible effects of party on variance in patterns of issue trespassing are dependent on covariates (column 2).⁴⁵ In the specification without covariates in column 1 in Table 4.5, the local average

⁴⁵ I estimate the local average treatment effect on the full sample in addition to the majority party restricted sample, in line with Tables 4.2 and 4.3 in the main analysis. This addition test, presented in the Appendix, corroborates a similar pattern, with significant

treatment effect of party on issue trespassing is statistically indistinguishable from zero, pointing to a low likelihood of any differences existing in patterns of issue trespassing existing across the parties. Taken together, though patterns of issue trespassing have been found to exist on the campaign trail (e.g., Banda 2015), Democrats seem to abandon this strategy once elected in office, suggesting issue trespassing as a policy strategy for representing district interests does not exist, at least when considering bill sponsorship. The full implications of these findings in conjunction with the other findings above in Tables 4.3 and 4.4 are addressed in the conclusion.

Conclusion

In this analysis, I sought to explore whether patterns of issue ownership and trespassing that exist on the campaign trail continue in the chamber once candidates become legislators. The goal then, was to assess whether districts receive varying levels of concentration on party-owned issues, partisan issue trespassing, and ultimately whether expressions of policy representation are dependent upon the party of the winning candidate. To do so, I offered new measures of partisan issue prioritization and partisan issue trespassing, several regression discontinuity specifications, along with numerous checks on bandwidth selection, which is a common critique of RD designs. In short, I found that, in part, legislators do mirror differential patterns of policy representation once elected. Democratic districts receive greater concentration on non-owned issues, while Republican districts receive greater concentration on party-owned issues on average. Yet,

effects dependent on the inclusion of control covariates, suggesting a true different between the parties does not exist in patterns of issue trespassing.

in a final set of tests exploring issue trespassing, the results revealed that neither Democrats nor Republicans exhibit trespassing-behavior in the bills they sponsor.

Taken together, the results point to two main conclusions: Republicans tend to play it safer in the chamber by focusing on party-owned issues, while Democrats tend to focus on a more diffuse set of issues. Both of these patterns in policy representation are in line with work suggesting Republicans are responding to constituent demands for ideological “purity”, while Democrats are responding to the broad and multiple bases of support (Grossmann and Hopkins 2016). Yet, partisan variance in levels of concentration on owned versus non-owned issues is a different idea than districts receiving trespassing-related behavior comprised of *active* prioritization of *opposing*-party issues. In this vein I found that districts do not receive intentional focus on opposing-party issues (i.e., trespassing), regardless of the party of the winning candidate. Combined with past research on campaign behavior, issue trespassing as a unique strategy seems to be a phenomenon engaged in by *candidates* for elective office, rather than by elected *legislators*.

Further, a key factor in this study is the majority party. Membership in the majority party had a pronounced conditioning impact on revealing differences between the levels of concentration on party-owned issues received by districts. This benefit could be due to freeing up legislators to carry over campaign tactics into the chamber with a degree of certainty that they will work, given the safety of the majority party. Indeed, as the benefits of the majority party extend to all of its membership (Aldrich and Rohde 2000; Cox and McCubbins 2005), individual strategies related to issue ownership in policy representation seem to be no exception, though absent for trespassing. This is in

line with related research demonstrating variance in policy representational focus dependent on the legislator's party (Jackson and King 1989).

Though this research provided a step, there remains much to be uncovered in exploring whether legislators of different parties represent their constituents differently, but with the same representational tools (e.g., bill sponsorship). As noted above, more work on seat safety and electoral vulnerability would be useful in determining how far these effects extend and whether patterns of ownership and trespassing are tools of the electorally vulnerable, or leveraged across the full membership of each party. Also, the time frame in this analysis, though ideal for redistricting cycles, was limited, covering only four Congresses across eight years. More research over a longer period of time would be useful to pull apart the complexity of these moving parts, as variance in policy representation received by districts continues to be explored.

CHAPTER 5

Conclusion

It has been my goal in this dissertation to focus on bill sponsorship, which is a widely used tool by legislators, to explain substantive elite political behavior. The legislative institutions literature has focused mostly on agenda setting and position taking in bill sponsorship studies. Thus, this dissertation has represented an effort to demonstrate bill sponsorship's explanatory value beyond these two narrower realms of chamber activity. To do so, I looked at three areas of behavior: representation and responsiveness; careerism and behavior within the chamber; and issue ownership and trespassing.

The second chapter, taking up the first substantive topic, explored representation patterns and responsiveness to constituent preferences through bill sponsorship. The findings revealed a weak direct link between constituents' stated issue preferences and sponsorship, though a stronger indirect link. The indirect link, based on employment patterns in districts, suggested that legislators may be looking to districts as they sponsor bills, though broadly and on their own terms. Assuming employment reflect preferences, legislators broadly align with "preferences" through the bill sponsorship. These findings call the delegate model of representation into question, suggesting a trustee model more accurately characterizes legislative behavior, at least when exploring bill sponsorship. Importantly, the representation and responsiveness literatures have been relatively split on the precise role and strength of constituents' influence in legislative behavior. Looking to bill sponsorship, which is less common approach in these literatures, has offered unique leverage in understanding representational patterns. Thus, bill sponsorship is useful to explore and explain representation.

The third chapter shifted attention to the chamber to explore how legislators incorporate bill sponsorship into their unique patterns of legislating. As legislators grow in their legislative careers the longer they sit in office, some choose to align several realms of policy work to focus narrowly on an issue, while others do not. To better understand this process of specialization, and more precisely *who* chooses to specialize, I began with legislators' bill sponsorship portfolios and explored their degrees of alignment with committee assignments to develop an original measure of issue specialization across numerous individual issues. With the measure in hand, I demonstrated that legislators' unique personality traits are instrumental in determining whether or not they will expend precious little resources, effort, and time to do the hard work of specializing. In line with expectations based in recent work on political psychology and elite decision making, I showed that legislators who are more conscientious, open to new experiences, and emotionally stable are more likely to specialize, relative to legislators who are more extroverted and agreeable. Tying back in with the theme of the dissertation, these findings suggest bill sponsorship is a key component of legislators' paths of careerism and policy work within the chamber.

Finally, chapter four blends the chamber and the district by looking at patterns of issue ownership and trespassing. In light of recent evidence on partisan variance in both issue ownership and trespassing, the final substantive chapter explored whether these patterns extend to chamber behavior. Leveraging individual bill sponsorship portfolios in the modern U.S. House to inform original measures of partisan issue prioritization and partisan issue trespassing, the goal of the final substantive chapter was to explore whether degrees of policy focus on owned issues versus non-owned issues, and then whether

trespassing-related behavior are dependent on the party of the winning candidate. From the 108th through the 111th Congresses, I found support for evidence of partisan variance in ownership, though not for trespassing. Differences in patterns of concentration on owned issues were most pronounced for districts that elect legislators to the majority party, with districts narrowly electing Democrats receiving less policy focus on party-owned issues, relative to districts that narrowly elect Republicans, which receive greater concentration on party-owned issues.

In looking to bill sponsorship, significant understanding of Congressional behavior was possible in three realms, including the representational connection between elites and constituents, careerism and policy patterns within the chamber, and then a blend of these realms tracing campaign patterns in chamber behavior.

Though many future projects will come from this dissertation, a few are worth noting. First, digging deeper into whether issue specialization retains a representational component is in line with work on policy demand. Specifically, do more “policy-demanding” constituencies influence whether their legislators will be specialists or not? Such a project would explore how far representational constraints reach within chamber behavior, while legislators are away from their districts. Second, future work exploring the impact of electoral vulnerability on partisan issue prioritization would be useful. Alluded to in chapter four, while there was evidence of differences across the parties in levels of focus on party-owned issues through bill sponsorship, the analysis was limited to interpretation at the discontinuity point, given the assumption of as-if randomization in regression discontinuity designs. There could be wide variance in degrees of partisan issue prioritization dependent on the levels of seat safety in districts. And finally, future

work exploring the influence of constituents conditioning the types of behavior they expect and desire from their elected officials would be valuable. Beyond specific issues, it could be the case that unique subconstituencies prefer their legislators sponsor bills rather than cosponsor bills; or that they pursue party leadership over committee leadership; or perhaps constituents may not pay attention to or care how their elected officials spend their time in the chamber while away from the district. Building on the idea of multidimensional representation (e.g., Harden 2016), future work would be valuable in assessing whether constituents demand (or care about) certain *forms* of behavior within the chamber over others from their legislators as they work in Washington.

APPENDICES

Appendix for Chapter 2

First, I detail the multilevel regression with poststratification (MRP) analytical strategy. I model the “most important problem” (MIP) question responses as a function of race (four categories: black, Hispanic, white and other), gender (two categories: male and female), education (five categories: less than high school, high school, some college, college, and graduate education), Congressional district, state, Census region (Midwest, Northeast, South, and West),⁴⁶ average district income, percent of district constituents living in urban centers, percent of district constituents classified as military veterans, and percent of district constituents in same-sex relationships. Several of these variables were selected given their frequent uses in opinion research (e.g., Clifford, Jewell and Waggoner 2015; Feldman and Johnston 2014), as well as past applications of MRP (e.g., Park, Gelman and Bafumi 2006; Warshaw and Rodden 2012). The result is 17,400 potential combinations of respondent type given the 435 districts and 40 demographic pairings across all districts.

To begin, I predict the likelihood of responding “yes” to each of the main response categories in the MIP question, compared to all other possible options.⁴⁷ In a similar procedure as other recent uses of MRP (e.g., Kastellec, Lax and Phillips 2010; Lax and Phillips 2009; Warshaw and Rodden 2012), I estimate these problem preferences, shown in *equation 1*, as a function of demographic and geographic

⁴⁶ Given the focus in this paper on the connection between constituent preferences and Congressional behavior, I exclude DC as a district, state and region, different than other studies (e.g., Kastellec, Lax and Phillips 2010; Warshaw and Rodden 2012). Also, all demographic and geographic predictors are from the Census factfinder.

⁴⁷ These response categories slightly vary by year, though not to a concerning degree. For example, “Rising Prices” in 2006 and 2007 versus “Rising Prices (Inflation)” in 2008.

characteristics for individual i , indexed by race (r), gender (g), education (e), congressional district (d), state (s), region (m)⁴⁸

$$\Pr(y_i^{MIP[x]} = 1) = \text{logit}^{-1}(\beta^0 + \alpha_{r[i]}^{race} + \alpha_{g[i]}^{gender} + \alpha_{e[i]}^{education} + \alpha_{d[i]}^{district}), \quad (1)$$

with the intercepts capturing the modeled (or, “random”) effects drawn from a normal distribution for each respondent type with mean zero and unique group-level variance, given the multilevel setup,

$$\begin{aligned} \alpha_r^{race} &\sim N(0, \sigma_{race}^2), \text{ for } r = 1, \dots, 4 \\ \alpha_g^{gender} &\sim N(0, \sigma_{gender}^2) \\ \alpha_e^{education} &\sim N(0, \sigma_{education}^2), \text{ for } l = 1, \dots, 5. \end{aligned}$$

District effects are modeled as a function of state random effects, and fixed effects for average district income, percent of district living in urban centers, percent of district that are military veterans, and percent of the district that are same-sex couples,⁴⁹

$$\alpha_d^{district} \sim N \left(\begin{array}{c} \alpha_{s[d]}^{state} + \beta^{income} \times income_d \\ + \beta^{urban} \times urban_d, \\ + \beta^{veteran} \times veteran_d, \\ + \beta^{samesex} \times samesex_d, \sigma_d^2 \end{array} \right), \text{ for } d =$$

1, ..., 435.

Given that states are nested within regions, the state effects are modeled as a function of the Census region into which the state falls, with group mean and unique group variance,

$$\alpha_s^{state} \sim N(\alpha_{m[s]}^{region}, \sigma_s^2), \text{ for } s = 1, \dots, 50.$$

⁴⁸ I use the inverse logit function, $\text{logit}^{-1}(x) = \frac{e^x}{1+e^x}$, because it transforms linear predictors into probabilities (Gelman and Hill 2007), which is crucial for the poststratification stage below in *equation 2*.

⁴⁹ Each of these input variables (income, urban, veteran and same-sex) are rescaled as centered on zero and divided by two standard deviations to aid in interpretability across different scales and values (Gelman 2008).

Finally, region modeled effects are normally distributed with mean zero unique group level variance,

$$\alpha_m^{region} \sim N(0, \sigma_{region}^2), \text{ for } m = 1, \dots, 4.$$

Once the estimates are generated, I use them to calculate the probability of selecting MIP topic, x , for each combination of demographic and geographic respondent, j . For each respondent, j , coefficients estimated in *equation 1* are used to predict the probability of selecting a specific topic compared to all others, $\hat{\vartheta}_j$. From here, in *equation 2*, I poststratify predicted probabilities based on the actual populations for each state population using census data, N_j ,

$$\widehat{\gamma}_d = \frac{\sum_{j \in s} N_j \hat{\vartheta}_j}{\sum_{j \in s} N_j}, \quad (2)$$

where $\widehat{\gamma}_d$ is the weighted estimate of the probability of selecting a given topic in district, d (i.e., MRP district-level estimate).

CCES Response Categories and Policy Agendas Project Sponsorship Coding

<i>CCES MIP Response Category (Year)</i>	<i>Policy Agendas Project Bill Code</i>
Economy and Jobs (2006)	Macroeconomics (1)
Economy and Jobs (2007)	Macroeconomics (1)
Economy (2008)	Macroeconomics (1)
War in Iraq (2006)	Defense (16)
War in Iraq (2007)	Defense (16)
Iraq (2008)	Defense (16)
Pollution and the Environment (2007)	Environment (7)
Pollution and the Environment (2007)	Environment (7)
Environment (2008)	Environment (7)
Health care and health costs (2006)	Health (3)
Health care and health costs (2007)	Health (3)
Health care (2008)	Health (3)
Rising Prices (2006)	Inflation, Price, and Interest Rates (101), Taxation, Tax Policy, and Tax Reform (107), Price Control and Stabilization (110)
Rising Prices (2007)	Inflation, Price, and Interest Rates (101), Taxation, Tax Policy, and Tax Reform (107), Price Control and Stabilization (110)
Rising Prices (Inflation) (2008)	Inflation, Price, and Interest Rates (101), Taxation, Tax Policy, and Tax Reform (107), Price Control and Stabilization (110)
Education (2006)	Education (6)
Education (2007)	Education (6)
Education (2008)	Education (6)

Dispersion Tests for Count Models

<i>Model</i>	<i>Dispersion Parameter</i>	<i>Z-Score (p-value)</i>
Economy (109 th)	1.597938	3.737 (p = 9.313e-05)
Defense (109 th)	1.506359	4.0619 (p = 2.434e-05)
Environment (109 th)	1.345954	2.6796 (p = 0.003686)
Healthcare (109 th)	1.943239	4.943 (p = 3.847e-07)
Economy (110 th)	1.667549	2.9883 (p = 0.001403)
Defense (110 th)	2.006459	4.6979 (p = 1.314e-06)
Environment (110 th)	1.724527	3.4389 (p = 0.0002921)
Healthcare (110 th)	2.113437	4.6703 (p = 1.504e-06)

In analyzing count data, it is ideal to begin by assuming a Poisson data-generating process. The reason to start with the Poisson regression is because it is the most parsimonious approach to analyzing the likelihood of counts occurring, estimating only a single parameter. Yet, the parsimony comes with a large assumption, which is that the data are homoskedastic. If they are heteroskedastic and thus overdispersed, the assumption is violated, and other modeling approaches accounting for the overdispersion are required.

Thus, the dispersion test compares the null hypothesis of equidispersion with the alternative hypothesis that dispersion is greater than one (i.e., heteroskedastic). In evaluating the output of the dispersion tests above, the dispersion parameters over one with significant p-values ($p < .01$), suggest we should reject the null of equidispersion, meaning a violation of equidispersion assumption, such that the data are overdispersed. As such, there is a need to statistically account for the equidispersion violation by modeling the overdispersion rather than ignoring it. These results justify selection of the negative binomial models estimated in the main body of the paper, which add a random effects parameter to account for the overdispersion.

Predicting Issue Sponsorship by MRP Issue Estimates

	<i>Dependent variable:</i>		
	Energy Bills (109 th) (1)	Immigration Bills (110 th) (2)	Terrorism Bills (110 th) (3)
2006 Energy MRP	0.354* (0.130)		
2007 Immigration MRP		0.104* (0.017)	
2008 Terrorism MRP			0.073* (0.033)
Constant	-4.159* (0.332)	-4.950* (0.187)	-2.963* (0.122)
N	8,003	9,245	9,245
Log Likelihood	-1,243.202	-815.571	-2,151.407
AIC	2,490.404	1,635.142	4,306.813

Note: *p<0.05; Standard errors in parentheses.

Direct Tests without Committee Membership Variables, 109th Congress

	<i>Dependent variable:</i>			
	Sponsored Bill Counts			
	Economy Bills (1)	Defense Bills (2)	Environment Bills (3)	Healthcare Bills (4)
Economy Preferences	-0.004 (0.018)			
Defense Preferences		0.017 (0.019)		
Environment Preferences			-0.151 (0.181)	
Healthcare Preferences				-0.010 (0.035)
Democrat	-0.475* (0.189)	0.167 (0.138)	-0.188 (0.207)	-0.041 (0.123)
Committee Chair	0.543 (0.358)	0.417 (0.288)	-0.111 (0.383)	-1.049** (0.318)
Majority Leader	-0.015 (0.656)	-1.784 (1.051)	0.280 (0.600)	0.181 (0.419)
Seniority	-0.037 (0.025)	-0.023 (0.018)	0.053* (0.021)	0.033* (0.015)
Total Number of Sponsored Bills	0.040** (0.006)	0.035** (0.005)	0.039** (0.006)	0.046** (0.004)
Constant	-1.305** (0.271)	-1.320* (0.537)	-1.880** (0.260)	-0.681* (0.292)
N	435	435	435	435
Log Likelihood	-420.169	-567.931	-390.021	-714.616
Akaike Inf. Crit.	858.338	1,153.863	798.041	1,447.231
Bayesian Inf. Crit.	895.016	1,190.541	834.719	1,483.909

Note: *p<0.05; **p<0.01.

Direct Tests without Committee Membership Variables, 110th Congress

	<i>Dependent variable:</i>			
	Sponsored Bill Counts			
	Economy Bills (1)	Defense Bills (2)	Environment Bills (3)	Healthcare Bills (4)
Economy Preferences	0.035 (0.019)			
Defense Preferences		0.038 (0.026)		
Environment Preferences			0.011 (0.212)	
Healthcare Preferences				0.012 (0.072)
Democrat	-0.391* (0.175)	0.161 (0.149)	0.496* (0.216)	0.428** (0.122)
Committee Chair	-0.321 (0.446)	1.011** (0.309)	-0.614 (0.444)	-0.517 (0.274)
Majority Leader	0.536 (0.429)	-0.828 (0.490)	-0.109 (0.536)	0.678* (0.272)
Seniority	-0.020 (0.022)	-0.062** (0.019)	0.042 (0.024)	0.004 (0.015)
Total Number of Sponsored Bills	0.042** (0.007)	0.037** (0.006)	0.049** (0.008)	0.050** (0.005)
Constant	-2.502** (0.669)	-1.264** (0.417)	-2.704** (0.320)	-0.968* (0.435)
N	433	433	433	433
Log Likelihood	-459.072	-634.481	-396.671	-749.161
Akaike Inf. Crit.	936.143	1,286.962	811.343	1,516.322
Bayesian Inf. Crit.	972.780	1,323.598	847.980	1,552.958

Note: *p<0.05; **p<0.01.

Appendix for Chapter 3

Table 5: Factor Loadings for Issue Specialization Measures					
<i>Issue (Dimension)</i>	<i>Committee Membership</i>	<i>Related Tenure</i>	<i>% Related Sponsorship</i>	<i>Total Bill Sponsorship</i>	<i>Legislative Effectiveness</i>
<i>Ag (Specialization)</i>	0.859	0.884	0.262	--	--
<i>Ag (Participation)</i>	--	--	--	0.830	0.563
<i>Defense (Specialization)</i>	0.820	0.896	0.293	--	--
<i>Defense (Participation)</i>	--	--	--	0.874	0.533
<i>Env (Specialization)</i>	0.872	0.830	0.130	--	--
<i>Env (Participation)</i>	--	--	--	0.566	0.823
<i>Energy (Specialization)</i>	0.914	0.781	0.128	--	--
<i>Energy (Participation)</i>	--	--	--	0.531	0.877
<i>Commerce (Specialization)</i>	0.814	0.923	0.231	--	--
<i>Commerce (Participation)</i>	--	--	--	0.525	0.886
<i>Science/Tech (Specialization)</i>	0.781	0.972	0.165	--	--
<i>Science/Tech (Participation)</i>	--	--	--	0.467	0.998
<i>Trans (Specialization)</i>	0.765	0.964	0.193	--	--
<i>Trans (Participation)</i>	--	--	--	0.467	0.998
<i>Educ (Specialization)</i>	0.871	0.847	0.261	--	--
<i>Educ (Participation)</i>	--	--	--	0.534	0.873
<i>Foreign Affairs (Specialization)</i>	0.779	0.962	0.296	--	--
<i>Foreign Affairs (Participation)</i>	--	--	--	0.629	0.740

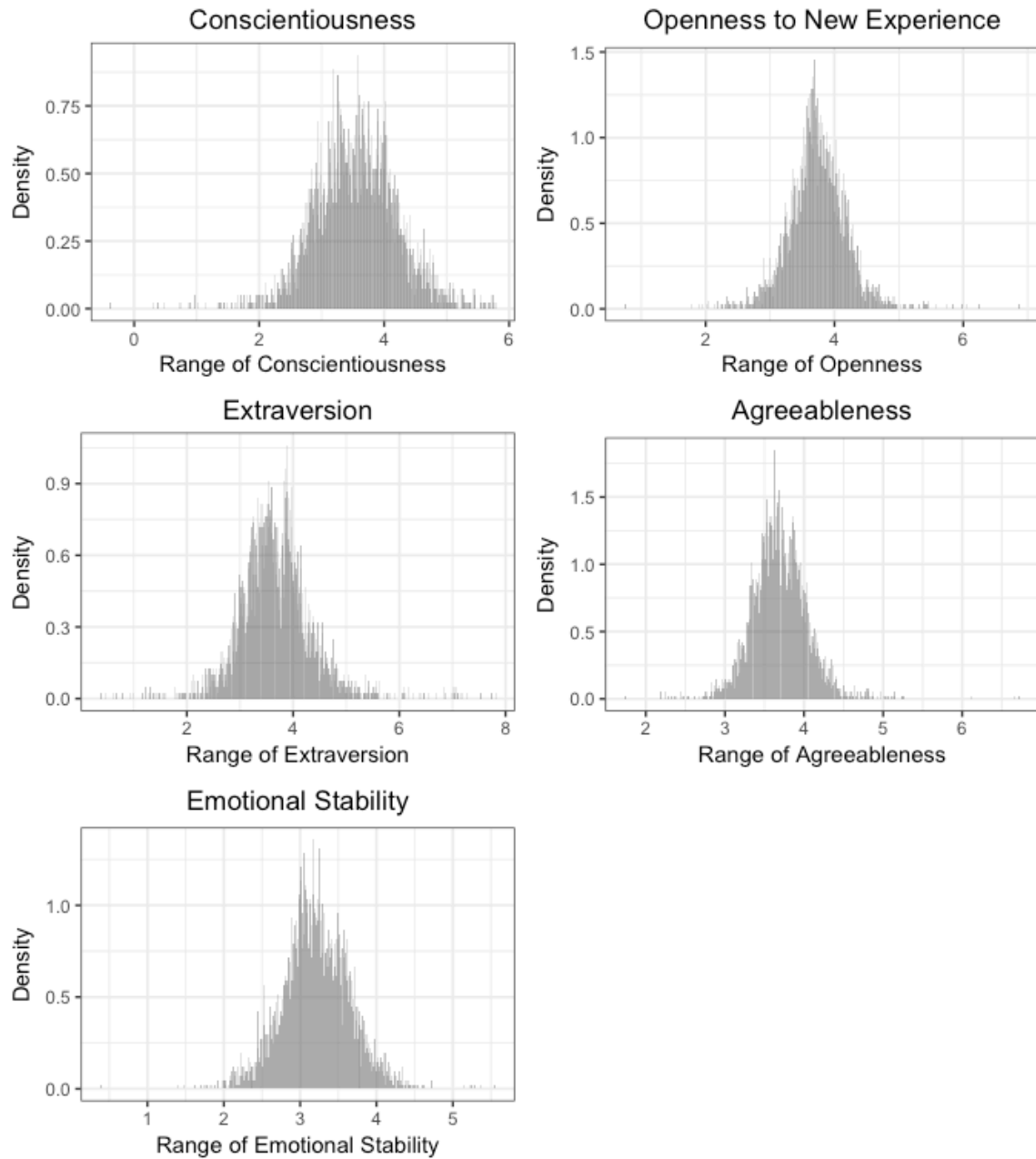


Figure 5: Density Plots for Big 5 Personality Traits

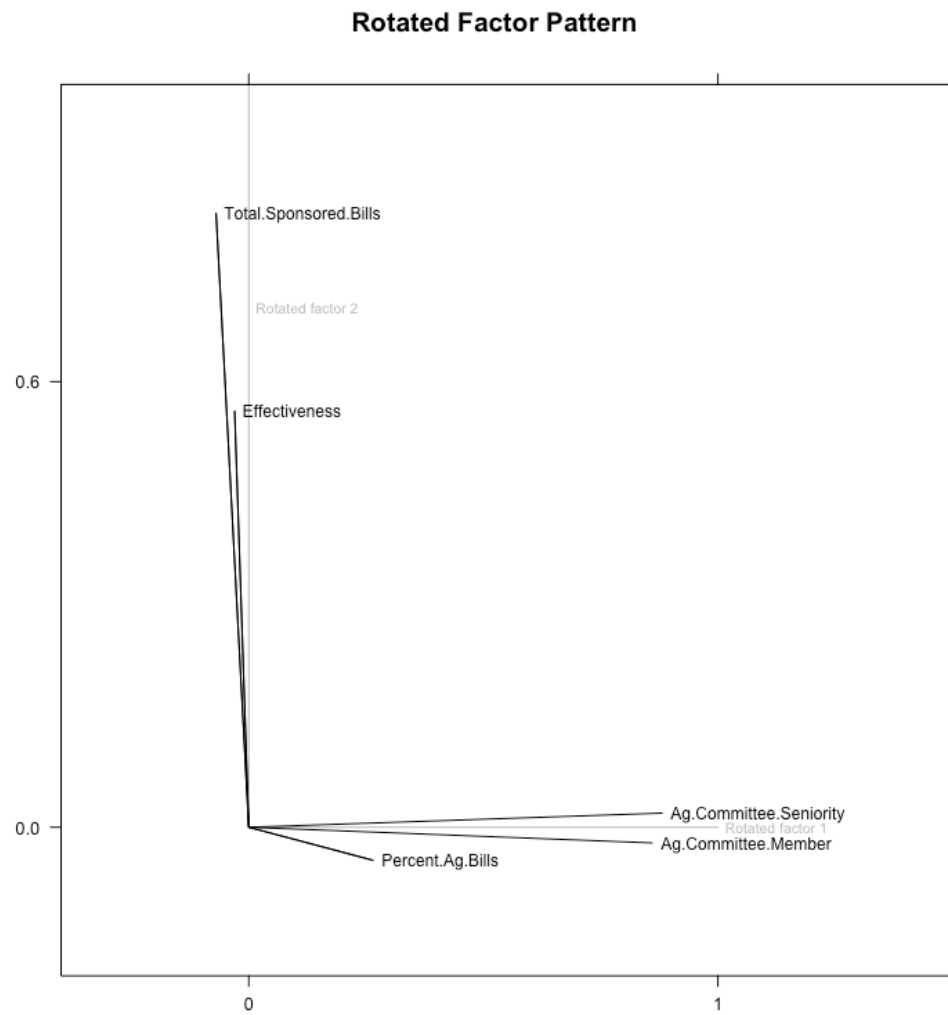


Figure 6: Factor Pattern: Agriculture

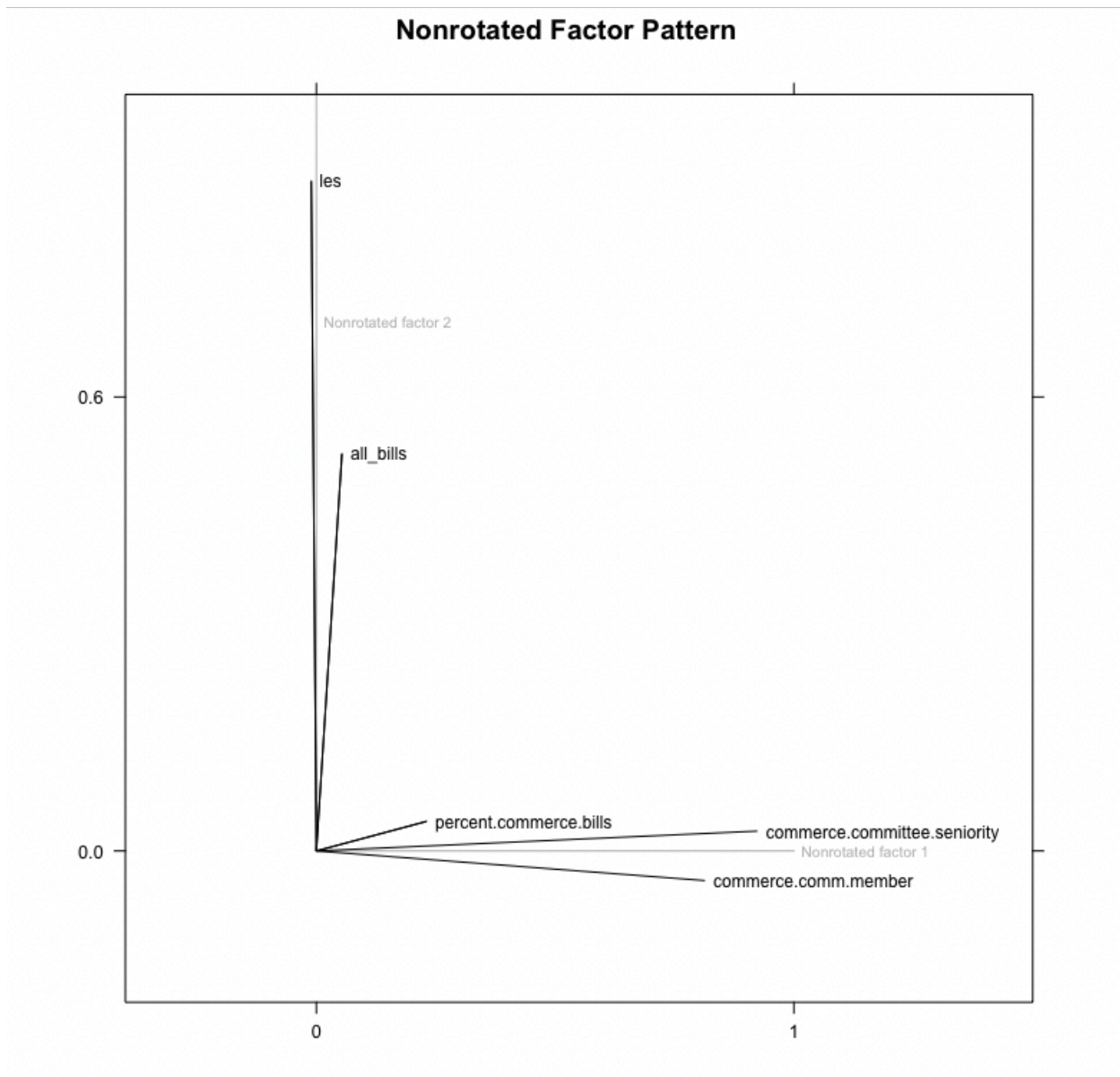


Figure 7: Factor Pattern: Commerce

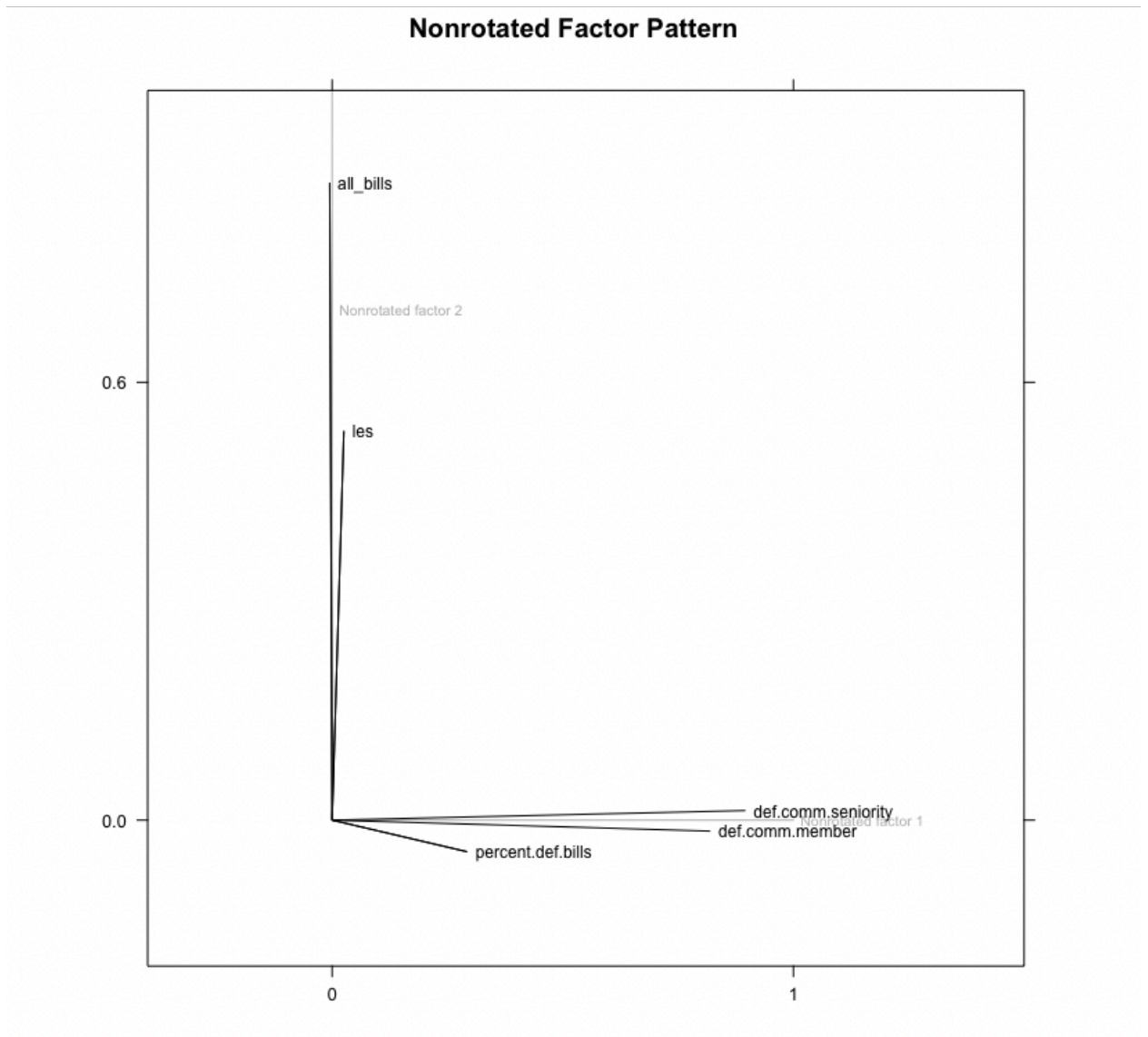


Figure 8: Factor Pattern: Defense

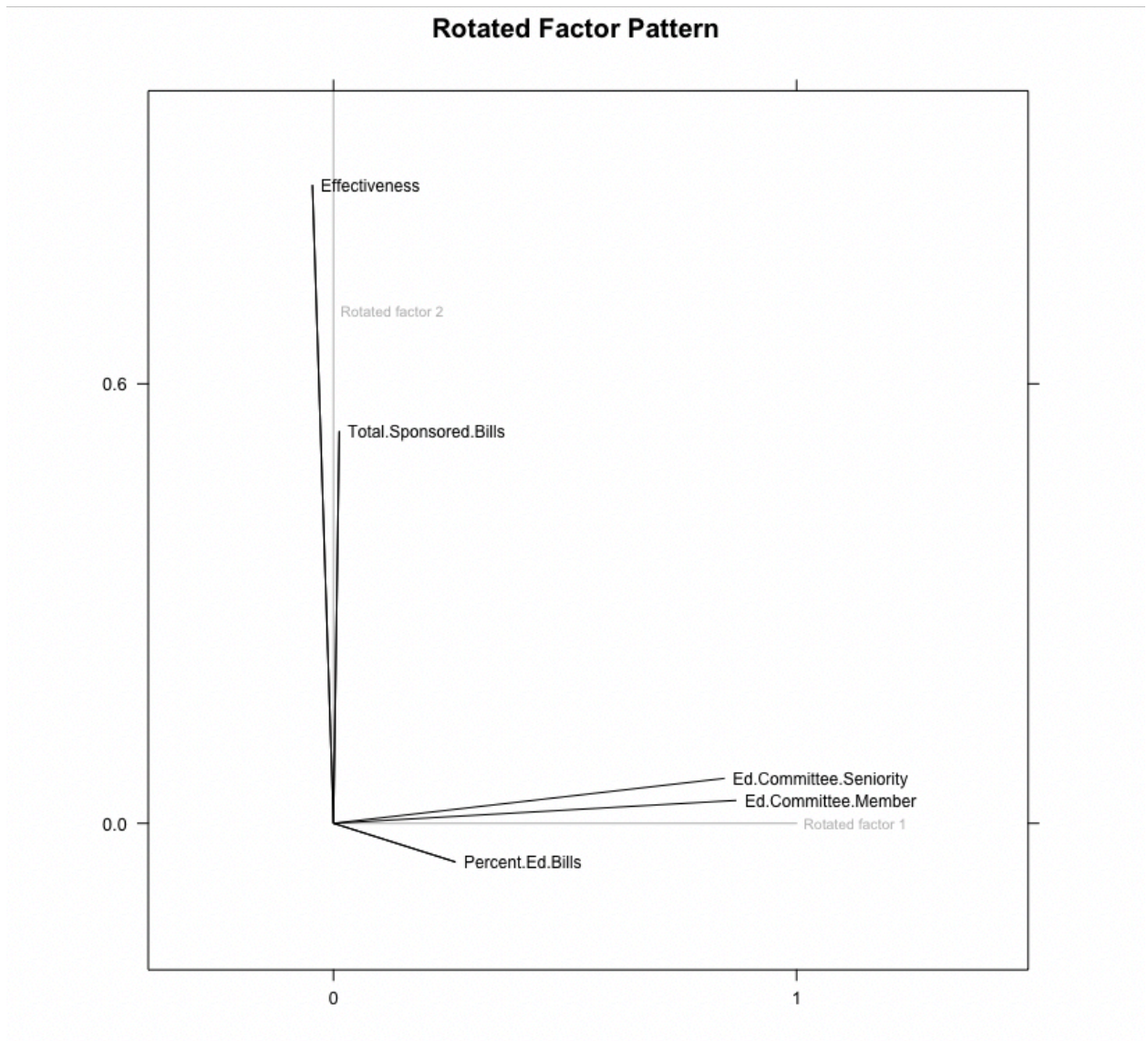


Figure 9: Factor Pattern: Education

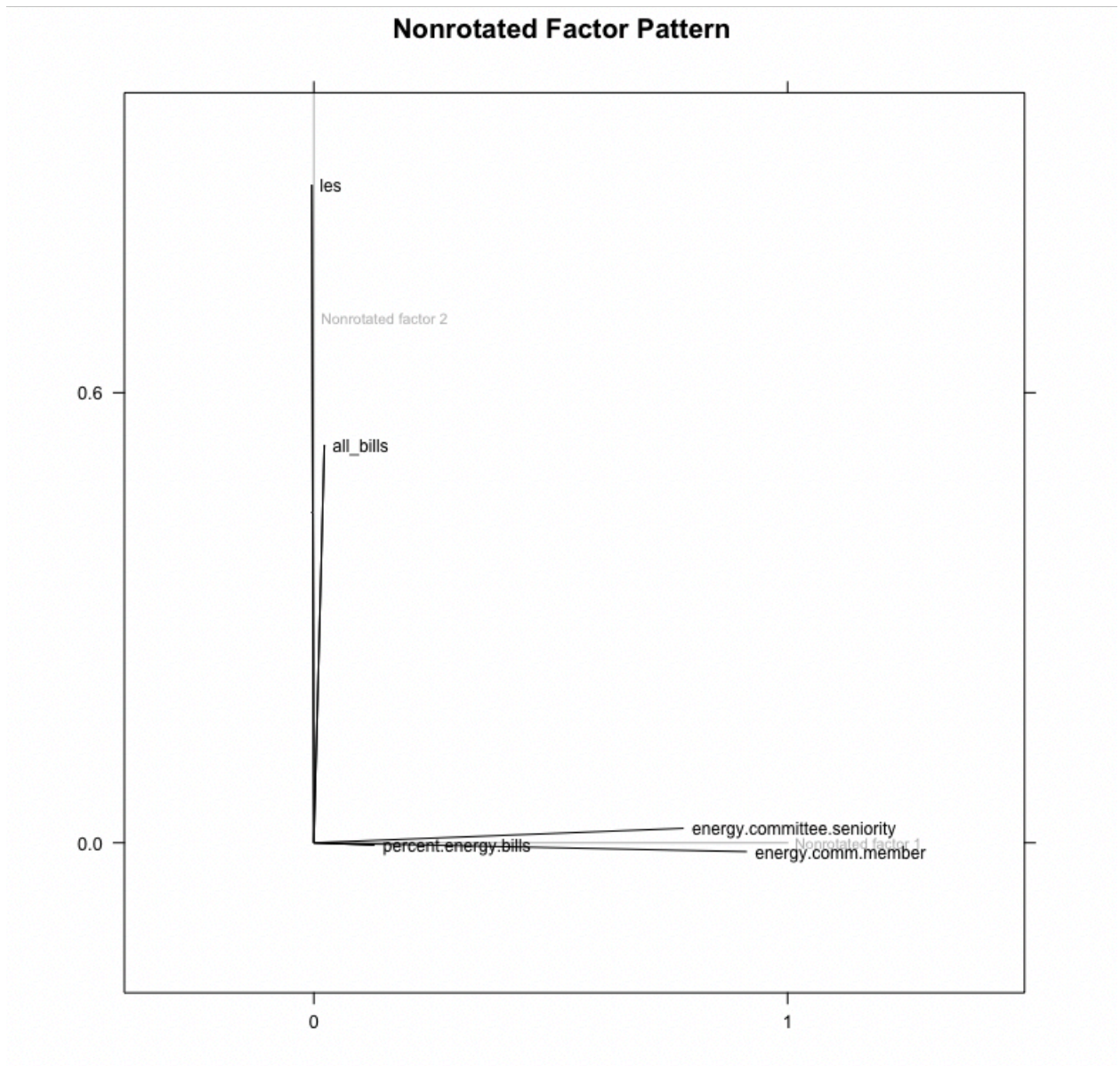


Figure 10: Factor Pattern Energy

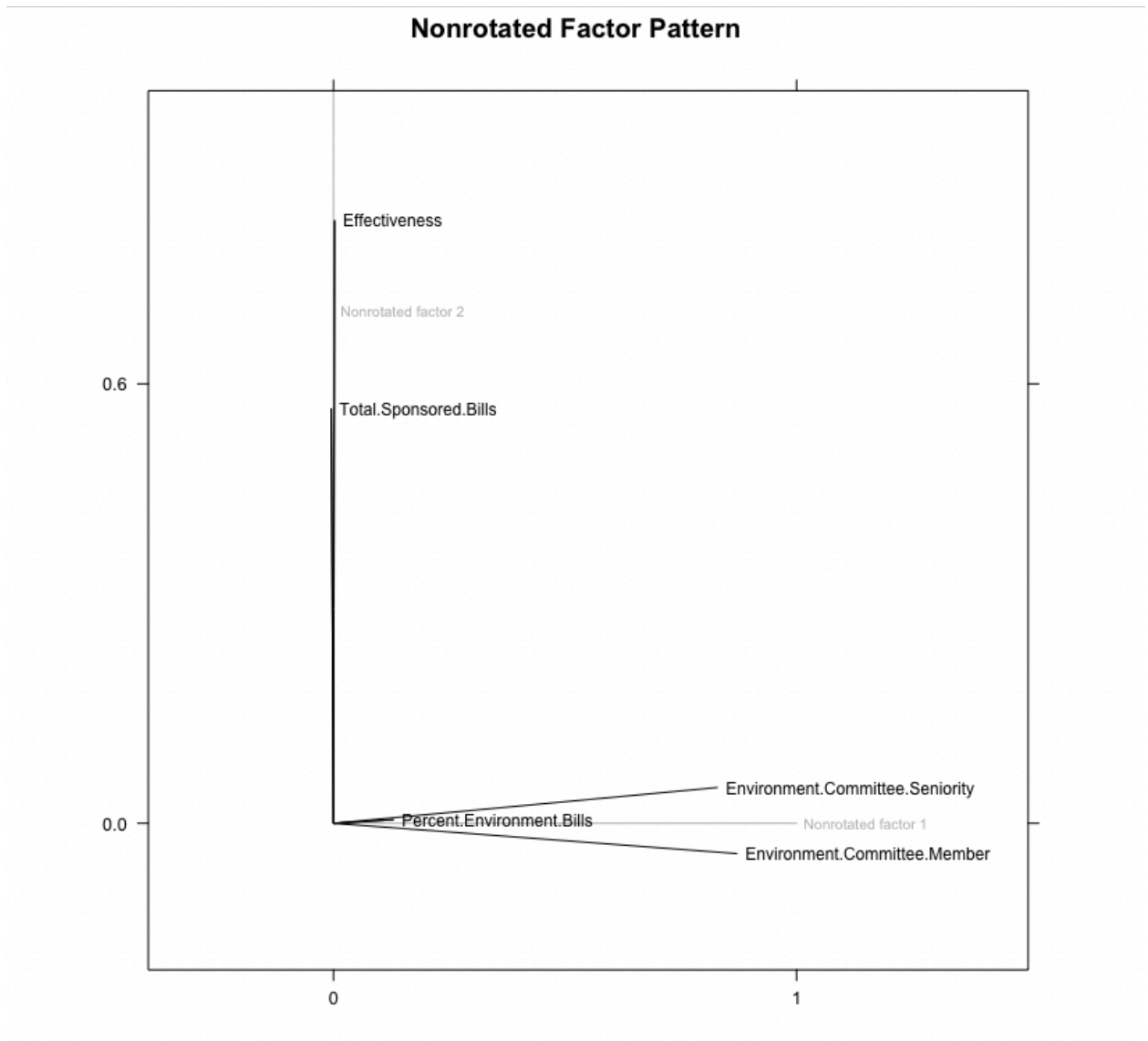


Figure 11: Factor Pattern: Environment

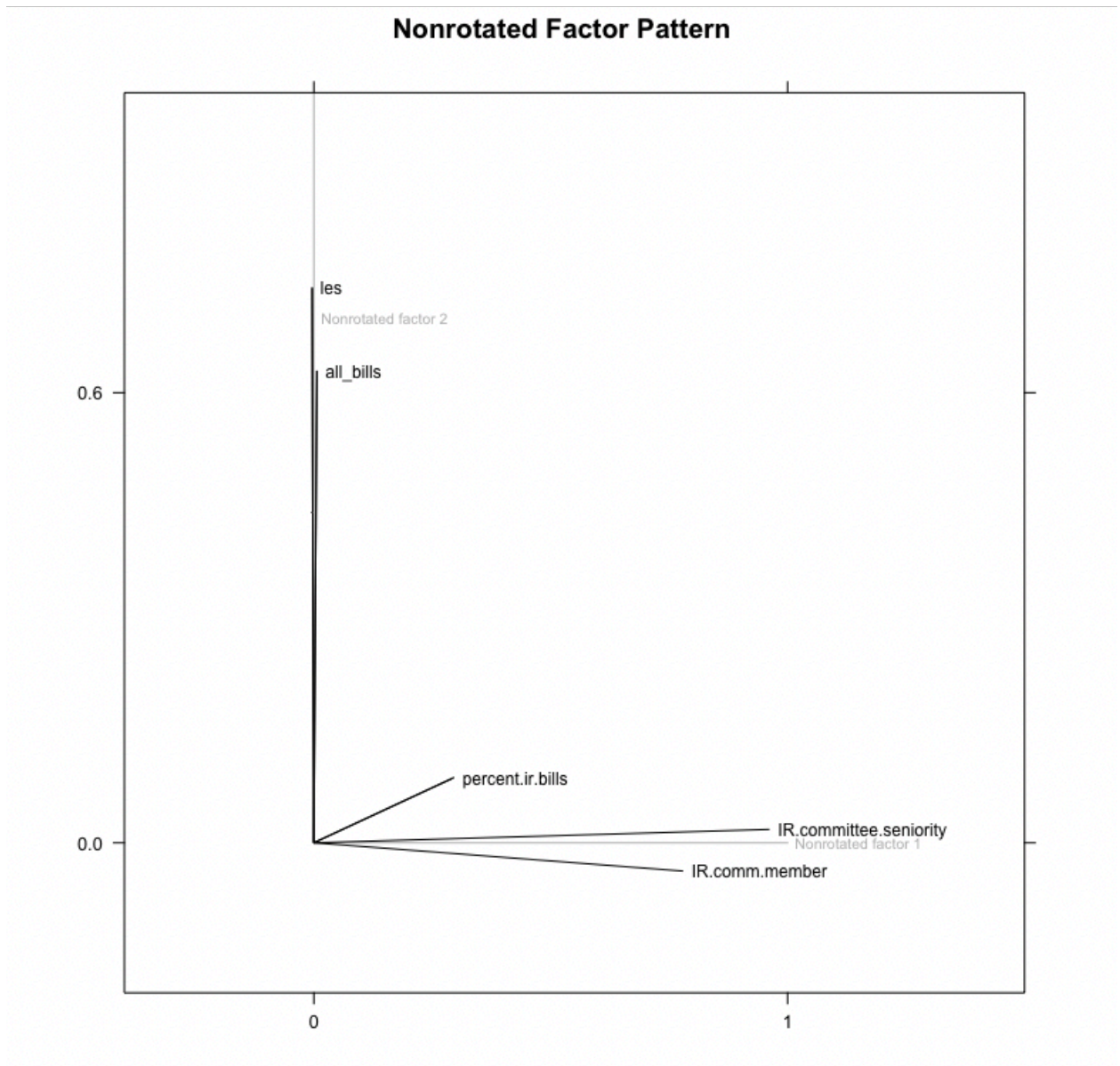


Figure 12: Factor Pattern: Foreign Affairs

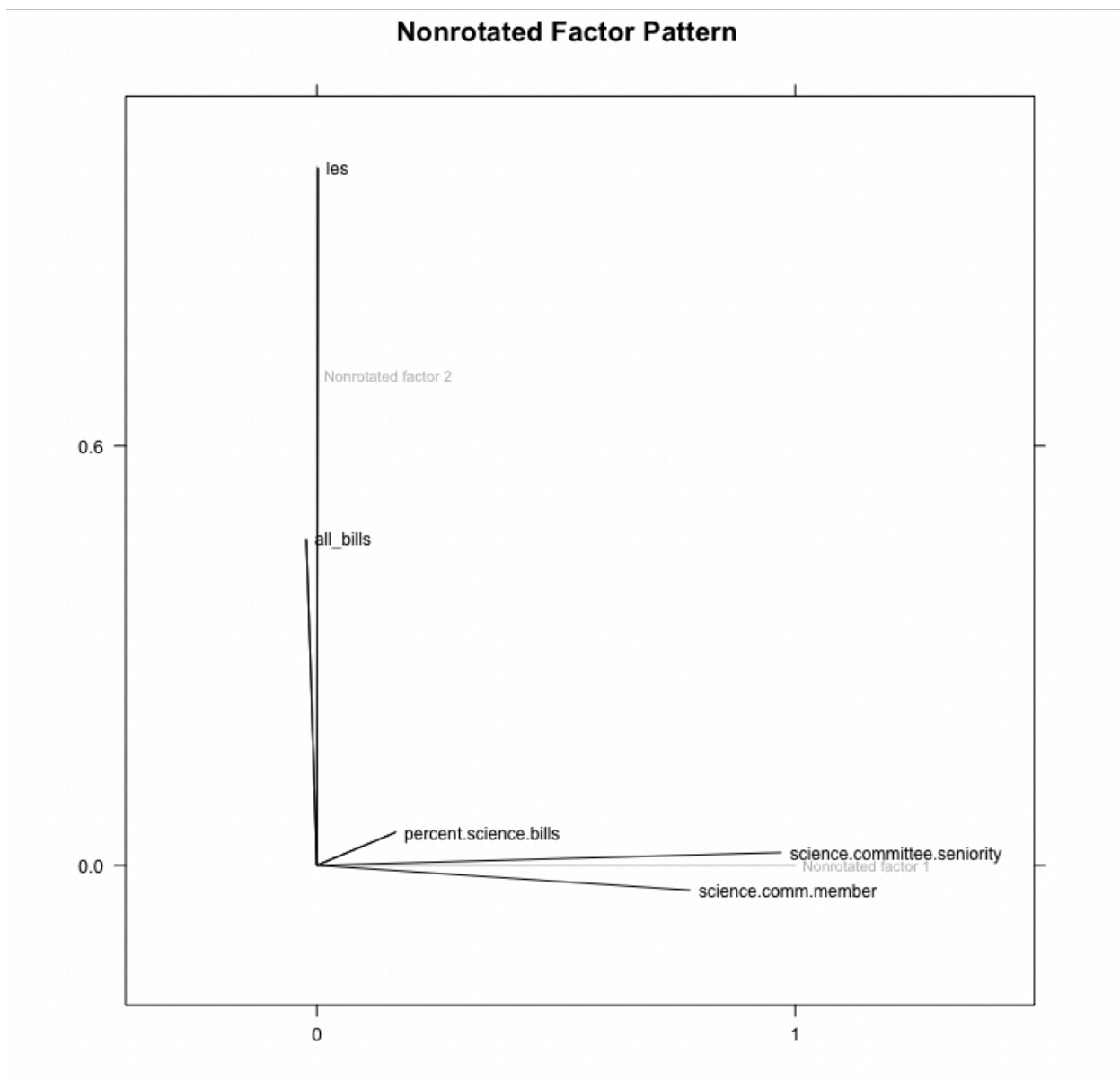


Figure 13: Factor Pattern: Science/Technology

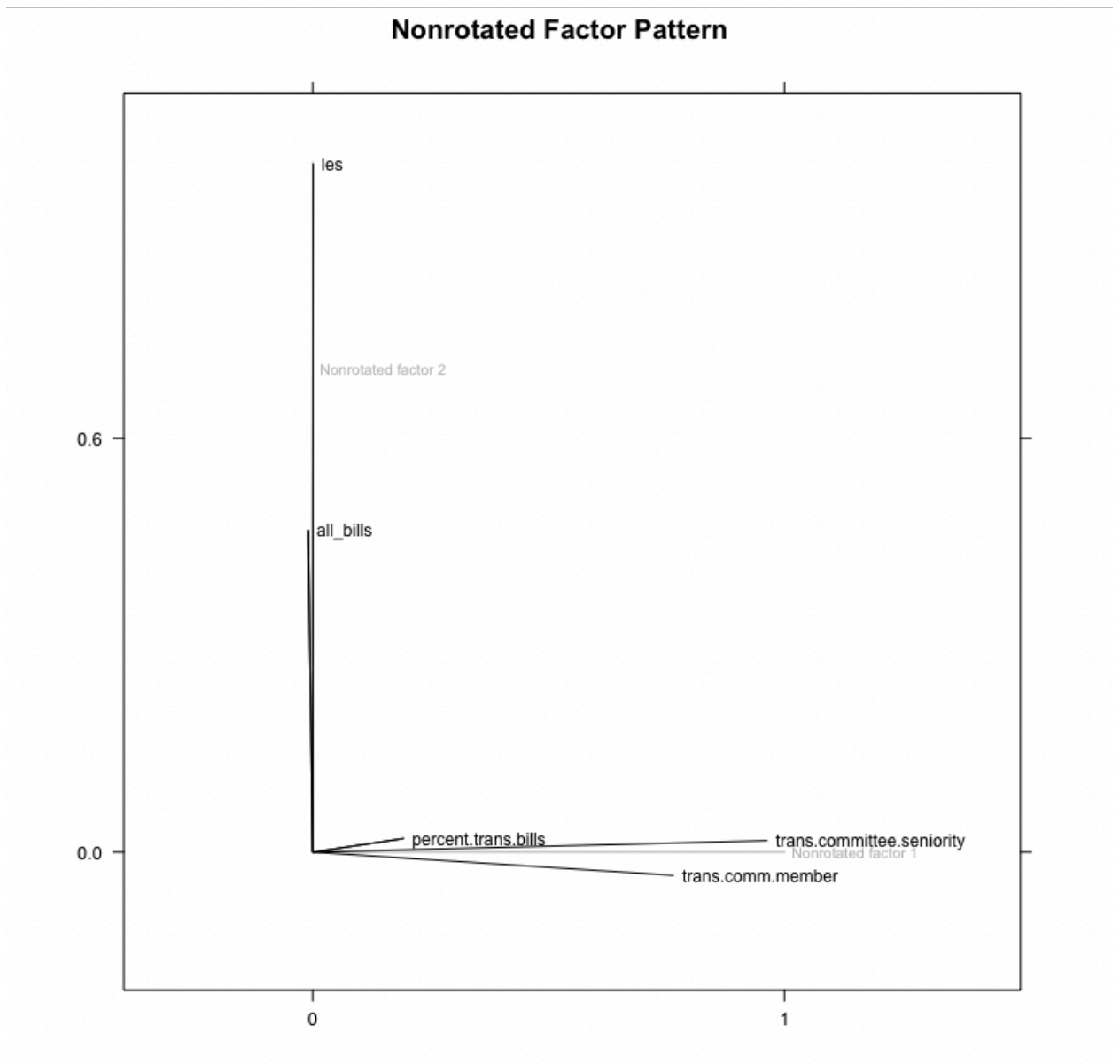


Figure 14: Factor Pattern: Transportation

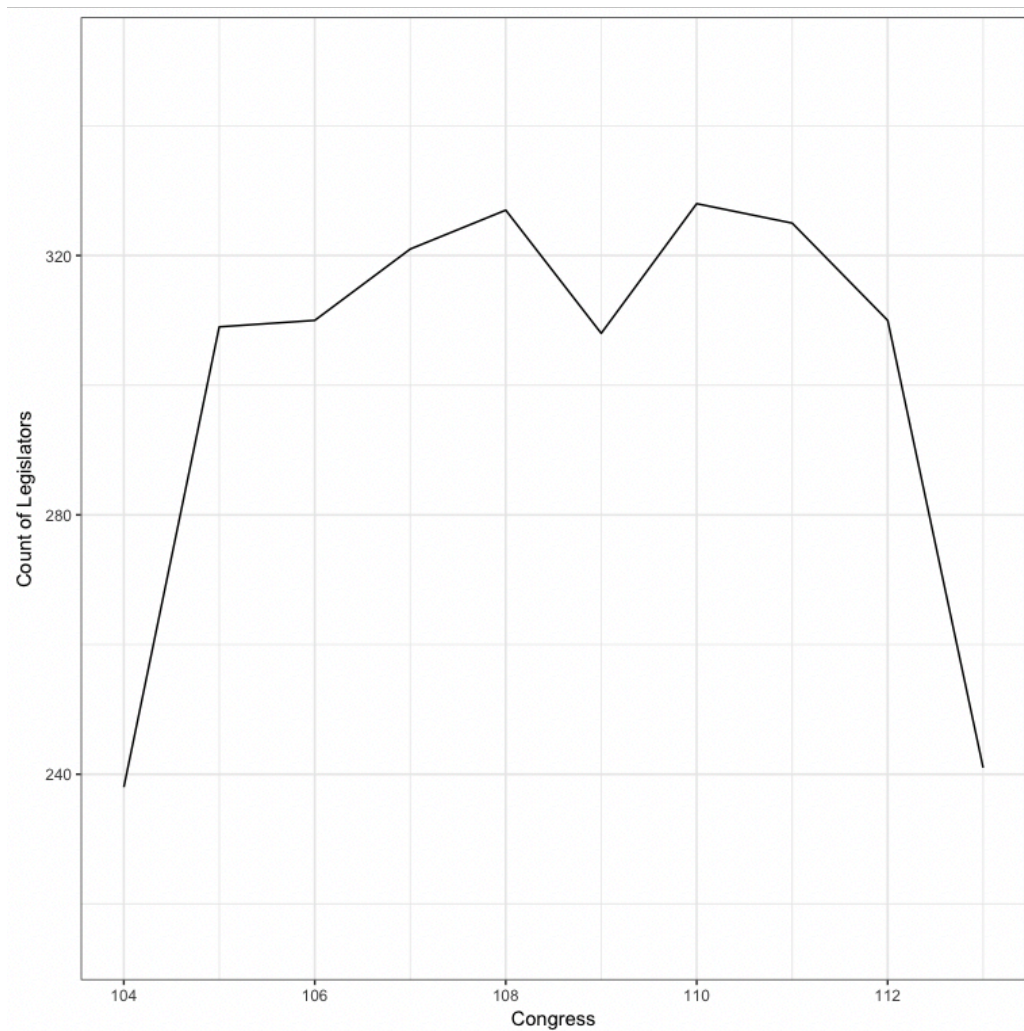


Figure 15: Issue Specialists in the U.S. House of Representatives, 104th-113th Congress

Table 6: Accounting for “Bill Managers” in Patterns of Specialization

	<i>Dependent variable:</i> Issue Specialist
Conscientiousness	0.328*** (0.107)
Openness	0.772*** (0.124)
Extraversion	-0.304*** (0.079)
Agreeableness	-1.482*** (0.199)
Emotional Stability	0.718*** (0.129)
Democrat	1.872*** (0.280)
DW-NOMINATE	1.640*** (0.277)
Seniority	-0.176*** (0.012)
Majority Leader	-0.757*** (0.249)
Minority Leader	-1.248*** (0.244)
Sub. / Sig. Sponsorship	0.019*** (0.005)
Party Unity	-0.032*** (0.006)
Delegation Size	0.004 (0.008)
Majority	-0.442*** (0.118)
<i>Bill Managers:</i>	
Committee Chair	1.487*** (0.219)
Subcommittee Chair	0.858*** (0.123)
Constant	3.969*** (0.814)
N	4,040
Log Likelihood	-2,032.769
Akaike Inf. Crit.	4,105.538
Bayesian Inf. Crit.	4,231.618
<i>Note:</i>	*p<0.1; **p<0.05; ***p<0.01

Table 7: Full Model Results Across Nine Different Specialization Specifications

	Main Table Results	No Ag.	No Def.	No Ed.	No Energy	No Env.	No IR.	No Comm.	No Sci.	No Trans.
Consc	0.351*** (0.106)	0.267*** (0.102)	0.430*** (0.099)	0.231** (0.102)	0.223** (0.101)	0.320*** (0.104)	0.494*** (0.104)	0.045 (0.098)	0.363*** (0.105)	0.236** (0.102)
Openn	0.814*** (0.123)	0.890*** (0.118)	0.421*** (0.112)	0.924*** (0.119)	0.944*** (0.116)	0.714*** (0.119)	0.295** (0.117)	0.882*** (0.113)	0.726*** (0.121)	0.752*** (0.118)
Extra	-0.330*** (0.078)	-0.309*** (0.074)	-0.390*** (0.072)	-0.327*** (0.075)	-0.217*** (0.073)	-0.387*** (0.076)	-0.385*** (0.076)	-0.103 (0.072)	-0.339*** (0.077)	-0.185** (0.075)
Agree	-1.455*** (0.194)	-1.503*** (0.187)	-1.443*** (0.182)	-1.377*** (0.189)	-1.050*** (0.185)	-1.334*** (0.189)	-1.134*** (0.187)	-1.051*** (0.182)	-1.441*** (0.192)	-1.162*** (0.188)
Emoti	0.682*** (0.127)	0.585*** (0.122)	0.805*** (0.119)	0.575*** (0.123)	0.427*** (0.120)	0.599*** (0.124)	0.674*** (0.123)	0.519*** (0.118)	0.689*** (0.126)	0.333*** (0.122)
Dem.	1.897*** (0.277)	1.286*** (0.267)	1.064*** (0.245)	1.866*** (0.274)	1.262*** (0.257)	1.542*** (0.270)	1.855*** (0.266)	1.728*** (0.255)	1.869*** (0.274)	1.502*** (0.267)
DW- nom	1.690*** (0.273)	1.189*** (0.266)	1.015*** (0.243)	1.870*** (0.271)	1.075*** (0.255)	1.271*** (0.266)	1.547*** (0.263)	1.696*** (0.251)	1.662*** (0.271)	1.406*** (0.266)
Sen	-0.138*** (0.011)	-0.114*** (0.010)	-0.115*** (0.010)	-0.112*** (0.010)	-0.138*** (0.010)	-0.124*** (0.011)	-0.143*** (0.011)	-0.072*** (0.010)	-0.133*** (0.011)	-0.134*** (0.011)
Maj Lead	-0.974*** (0.245)	-0.959*** (0.242)	-0.695*** (0.245)	-0.867*** (0.243)	-1.204*** (0.256)	-0.821*** (0.244)	-0.972*** (0.245)	-1.002*** (0.243)	-0.952*** (0.246)	-0.883*** (0.241)
Min Lead	-1.228*** (0.241)	-1.108*** (0.236)	-0.879*** (0.243)	-0.983*** (0.239)	-1.418*** (0.254)	-1.168*** (0.240)	-1.171*** (0.239)	-1.222*** (0.242)	-1.194*** (0.241)	-1.067*** (0.237)
Sub/Sig	0.023*** (0.005)	0.023*** (0.005)	0.028*** (0.004)	0.022*** (0.004)	0.017*** (0.004)	0.023*** (0.005)	0.018*** (0.004)	0.010** (0.004)	0.020*** (0.005)	0.018*** (0.004)
Unity	-0.033*** (0.006)	-0.022*** (0.005)	-0.023*** (0.005)	-0.043*** (0.006)	-0.033*** (0.005)	-0.035*** (0.006)	-0.029*** (0.006)	-0.036*** (0.005)	-0.029*** (0.006)	-0.028*** (0.005)
Deleg	0.006 (0.008)	0.010 (0.008)	-0.003 (0.009)	0.001 (0.007)	0.002 (0.009)	0.006 (0.008)	0.002 (0.008)	0.006 (0.006)	0.006 (0.008)	0.004 (0.007)
Majorit y	0.052 (0.103)	0.018 (0.100)	-0.049 (0.094)	0.070 (0.100)	0.137 (0.095)	-0.009 (0.101)	0.034 (0.100)	0.148 (0.095)	0.020 (0.102)	0.079 (0.100)
Consta nt	3.644*** (0.802)	2.941*** (0.753)	3.660*** (0.719)	4.364*** (0.788)	2.401*** (0.750)	4.376*** (0.784)	3.762*** (0.770)	2.226*** (0.740)	3.517*** (0.787)	3.325*** (0.773)
N	4,040	4,040	4,040	4,040	4,040	4,040	4,040	4,040	4,040	4,040
Log Lik	2,071.87 1	2,227.30 6	2,368.78 5	2,189.90 1	2,337.58 3	2,156.21 9	2,186.59 2	2,337.75 0	2,114.73 9	2,203.75 4
AIC	4,179.74 2	4,490.61 2	4,773.57 0	4,415.80 2	4,711.16 6	4,348.43 8	4,409.18 3	4,711.50 0	4,265.47 8	4,443.50 9

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

Does the Issue Matter? Exploring Issue Adaptation & Issue Alignment in the Issue Specialization Measurement Strategy

The main analysis demonstrated that the personalities of legislators influence the likelihood of pursuing issue specialization. Based on an original measure of issue specialization and several tests, there has been robust support for this theoretical story of personality acting as a powerful mechanism in influencing decisions to specialize. Yet, I have assumed that the issues themselves are immaterial insofar as their influence on legislators' decisions to specialize. My theory expects, and has found strong support for the process of specialization itself being the motivation, as opposed to the issue motivating specialization decisions.

Still, rather than assume the issues themselves do not matter for specialization decisions, in this section I offer theoretical and empirical clarity to this story. I suggest two additional expectations regarding issues to provide a check on the robustness of the original issue specialization measure in the main paper. First, I expect the issues themselves do not matter, at least insofar as their influence on whether or not legislators pursue specialization. Legislators should specialize in whichever issue area comprises their unique contexts, resulting in a greater likelihood for committee members to prioritize the related issue on average, relative to non-members, regardless of the specific issue. And second, while the issues should not matter as far as influencing specialization, the issues comprising sponsorship behavior and committee jurisdictions must be in alignment with each other for the legislator to be considered an issue specialist (e.g., sponsorship on defense issues must align with defense-related committee membership). This second expectation flows from the definition of issue specialization, where

committee membership should allow legislators opportunities to specialize, but the actual decisions to specialize through tailoring policy focus must be made intentionally by the individual legislator. I unpack each of these expectations below.

In light of the definition of issue specialization in this analysis, as well as the findings to this point suggesting legislators use of sponsorship and committees to pursue specialization, legislators must adapt to their unique contexts whatever they may be, if they see issue specialization as worth pursuing and want to maximize their time in office. This adaptability expectation is reinforced by the prominent role of party leaders in determining whether legislators even have access to specialize in the first place, through committee assignment and retention powers. As such, legislators' decisions to specialize or not are closely linked with their committee work. Given the uncertainty around the committee assignment process, legislators who are limited in time and resources to accomplish everything facing them in a single term of office (Bauer, Pool, and Dexter 1972), should not care which issue jurisdiction comprises their committees as they decide whether to pursue issue specialization on average. Instead, they should first, adapt to their committee contexts, and then allow their personalities to determine whether or not they specialize. Put simply, once legislators are on the committees, they have been granted access by party leaders to be able to decide whether or not to specialize. Then, once on committees, their personalities determine whether or not they will turn these opportunities to specialize into actual specialties or not, which is addressed in the analysis and findings above.

The main expectation is that while access to opportunities to specialize is heavily controlled by party leaders as discussed in the Measurement section of the main paper,

legislators adapt and operate within these confines as they decide to specialize. The result should be assignment to committees influencing higher likelihood of related issue sponsorship, with this likelihood exponentially increasing as tenure on the committee increases, given the impact of increased and compounding expertise and investment in a related issue area. Thus, the increase in expertise should not be linear and constant, but should be exponential, as expertise through time spent on a committee suggests that new information compounds on already established expertise. The “stock” of expertise overtime builds on itself. This adaptation should be visible across substantive (e.g., defense) and non-substantive (e.g., government operations) issues, as the issue itself should not matter. Yet, the alignment of issues for sponsorship and committees does matter, and thus should match. The following hypotheses are useful to formalize the two expectations, and guide the model specification and discussion.

H7: (a) Related issue sponsorship should be more likely for committee members than non-members, (b) with the likelihood increasing exponentially as tenure, and thus expertise, on the committee increases. (c) The patterns between substantive and non-substantive issues should be substantively similar.

H8: Related issue sponsorship and committee membership must be in alignment to be considered issue specialization, according to H7a.

Testing the Issues Hypotheses. To test for these expectations, I combine the committees (condition 1 of the specialization definition) and behavior (condition 2 of the specialization definition) of legislators to generate two additional tests using duration models. First, per H7a, I test the expectation that as tenure on a related issue committee increases (condition 1) so too does the likelihood, or “hazard” of sponsoring related

legislation (condition 2). Then, per H7b, where the hazard should exponentially increase as time passes suggesting expertise is compounding, all hazard models are fit assuming an exponential functional form for the regressors, but not for the baseline hazard. This is addressed at length below. Individual hazard models are fit for each of the nine issues used in the main analysis above. Then, as a test of H7c, I estimate another hazard function for a non-substantive issue, government operations, and compare the patterns of sponsorship, relative to committee assignment and tenure. Such a procedure allows for a critical test of whether legislators are motivated by the issues themselves as they decide to specialize, or whether they adapt to the given committee, whether substantive or not, in light of the power of party leaders in this process. If H7c is supported, then we should expect a substantively similar pattern across all issues, substantive and non, where issue committee members are more likely to sponsor related issues, with this likelihood exponentially increasing over time. In so doing, I demonstrate that the issue is immaterial for decisions of legislators to adapt to their committee context and take up the given issue to become specialists. Then, to test for the issue alignment expectation per H8, the second test mismatches issue sponsorship and committee assignment to show that the alignment of the committee (condition 1) and behavior (condition 2) is important. The second test strengthens the suggestion that while the issue may not matter for influencing legislators' decisions to specialize (shown in the previous test), the issues comprising committee and policy work must be alignment for the legislator to be considered a specialist in the given issue area.

For these additional tests, the dependent variable of interest is a combination of two variables: committee tenure (years spent on a committee) and dichotomous bill topics

in a specific issue area (e.g., sponsorship on agriculture (1) or not (0)). These two variables are combined given the requirements for estimating hazard rates in duration models. This is addressed at length below.

The independent variable of interest is membership on the committee with jurisdiction over the related issue. This is a dichotomous indicator with 1 = membership and 0 = non-membership. Four of the nine issue models are presented in the main paper and five in the Appendix, corresponding with the nine substantive issues previously used to generate the issue specialization measure. The four presented in the body of the paper in Table 8 are: agriculture, environment, education and foreign affairs. The other five models are in Table 9: defense, energy, commerce, science/technology, and transportation. Control variables include majority party, partisanship, ideology (DW-NOMINATE), party leader (for both majority and minority parties), delegation size, and dichotomous indicators for committee chairs and subcommittee chairs.

To model the issue adaptation expectations (H7) and then the issue alignment expectation (H8), I estimate Cox proportional hazards models (Cox 1972) for individual issues, to estimate the underlying “hazard” of sponsoring a related issue bill, as a function of time (committee tenure) and related-issue committee membership.⁵⁰ Similar to Katz

⁵⁰ The Cox model is preferable to other common duration models, such as the Weibull or Gompertz, for several reasons. Most notably, it is semi-parametric, where a functional form is specified for the regressors (which here is exponential), but there are no assumptions made about the baseline hazard, $\gamma_0(t)$. This is assumed to be unknown, as opposed to the fully parametric approaches, which parametrize the baseline hazard. Such

and Sala (1996), I also estimate the likelihood of an event or “hazard”, which in this case is bill sponsorship on a related issue, based on the extension of the Cox model derived by Katz and Sala (1996, 31-32), which is useful to predict likelihood of a binary outcome. I estimate the following hazard function in *equation 1*,

$$\gamma(t, X, \beta) = \gamma_0(t)e^{\beta X_t}, \quad (1)$$

where $\gamma(t, X, \beta)$ is the probability of sponsoring a bill on the related issue at the given year of service on a committee, t , as a function of all years of service on the committee prior to t , the vector of legislator-level covariates, X , and their parameters, β . $\gamma_0(t)$ is the baseline hazard rate of sponsoring a bill on the related issue, holding all covariates at zero. As X_t is a dummy variable for membership on the related issue committee, the β associated with X_t is the parameter capturing the likelihood of issue committee membership (0,1) shifting the hazard rate, relative to the baseline hazard of issue sponsorship at each time point. The expectation is the β capturing the impact of X_t on issue sponsorship as committee tenure increases to be positive. This suggests that the “hazard” of sponsoring a related bill increases exponentially for those belonging to the related issue committee, compared to those who are not on the committee, as time spent on the committee increases. I display the model output for the nine main issues explored

a parametric approach requires numerous additional assumptions, which are avoided when using the Cox model. Also, the Cox proportional hazards model is frequently used in social and political research, where extensions such as the one leveraged in this analysis from Katz and Sala (1996) allow for greater flexibility in addressing a greater breadth of questions.

below in Tables 8 and 9, and the exponentiated coefficients (e^{β}) for the first four issues in an illustrative exercise in Table 10. All models are well-fitting, with no troublesome outliers or violations of the proportional hazards assumption. See the diagnostic tests and robustness checks, as well as discussion for all major issues in Figure 18-37 below.

Once the initial model results have been displayed as a critical test of H7a and H7b, I then take the same approach of estimating the hazard of sponsoring legislation, but on the non-substantive issue of government operations for a critical test of H7c. Bills in this category are considered non-substantive, given requirements for passing legislation on issues related to keeping the government functioning. This is an ideal issue to test the adaptability expectation in H7c, where the sponsorship category and related committee can be readily paired, similar to the nine substantive issues, given the same *Policy Agendas Project* name for the sponsorship category and the Congressional committee: government operations. I test the same expectations from Equation 1, with the hazard of issue sponsorship as a function of committee assignment and tenure. I present only the plot of hazard rate in Figure 17 based on the output from Table 11, which is strongly supportive of the findings from the all nine models in Table 8 and Table 9.

Finally, to test H8, I mismatch issues for committees and sponsorship and estimate a Cox proportional hazards model based on the specification in Equation 1, predicting the hazard of sponsoring agriculture-related legislation as a function membership on the education and labor committee. This approach is valuable in testing whether assignment to the related issue committee matters as it pertains to specialization, by ensuring the patterns to this point are demonstrating the use of issue sponsorship to

build and signal specialization in the same issue area. The expectations are null findings for the committee variable, suggesting there is no issue specialization value from assignment to a committee unrelated to bill sponsorship rates in a different issue area. I present the results in Table 12 and follow with discussion.⁵¹

The Hazard of Issue Sponsorship over Related Committee Tenure. The first series of models tests the expectations of H7a and H7b, that the issue itself does not matter in terms of influencing decisions to specialize. To do, I estimate the hazard function in Equation 1 for nine individual issues, with the expectation that issue sponsorship should be more likely on average for committee members, relative to non-members (H7a) and that this likelihood should increase exponentially as tenure on the committee increases (H7b). If the expectations are correct, then we would expect positive and significant coefficients for each of the committee variables in the respective issue models in columns 1-4 in Table 8 and 1-5 in Table 9, suggesting committee membership positively predicts related issue sponsorship, with the likelihood exponentially increasing in light of the exponential distributional assumption, captured in the functional form of the estimated model in Equation 1. See the main model output for the four issues below in Table 8, followed by the other five issues in Table 9, followed by exponentiated coefficients in Table 10.

The results across all substantive issues in Tables 8 and 9 reveal the same substantive patterns. Seen in the top rows of coefficients for related committee members

⁵¹ I follow the same procedure for three additional pairs of mismatched issues in Table 13, revealing substantively similar patterns of expected null results.

for each of the issue models, the positive and strong effects suggest that belonging to the related committee exponentially increases the likelihood of related issue sponsorship.

This is the case across all issues in all models. Strikingly, the effects for related committee membership are some of the most powerful predictors of related sponsorship, often surpassing the impacts of Majority Party status, partisanship, and ideology.

Table 8: Hazard of Issue Sponsorship Over Committee Tenure

	Issue Sponsorship over Issue Committee Tenure (years)			
	Agriculture (1)	Environment (2)	Education (3)	Foreign Affairs (4)
Ag. Comm.	1.260*** (0.118)			
Nat. Res. Comm.		0.722*** (0.099)		
Ed. Lab. Comm.			0.754*** (0.092)	
Foreign Affairs Comm.				1.019*** (0.104)
Majority	1.016*** (0.104)	1.106*** (0.079)	0.971*** (0.076)	0.771*** (0.108)
Democrat	0.246 (0.208)	0.095 (0.152)	0.887*** (0.154)	-0.231 (0.196)
DW-NOM	0.311 (0.203)	0.140 (0.146)	0.490*** (0.148)	-0.208 (0.186)
Maj. Leader	-0.673** (0.307)	-0.542** (0.213)	-0.355* (0.197)	0.005 (0.244)
Min. Leader	0.385 (0.238)	-0.030 (0.214)	-0.045 (0.184)	0.303 (0.225)
Delegation Size	-0.010*** (0.003)	0.004** (0.002)	-0.004** (0.002)	0.008*** (0.002)
Comm. Chair	-1.372*** (0.177)	-1.332*** (0.123)	-1.447*** (0.138)	-1.302*** (0.165)
Subcomm. Chair	-1.122*** (0.111)	-0.912*** (0.077)	-0.972*** (0.081)	-0.580*** (0.103)
N	4,107	4,107	4,107	4,107
R ²	0.064	0.073	0.076	0.042
Max. Possible R ²	0.930	0.993	0.995	0.946
Log Likelihood	-5,318.956	-9,915.801	-10,570.820	-5,914.725
Wald Test (df = 9)	311.630***	343.460***	333.290***	194.460***
LR Test (df = 9)	269.804***	312.572***	322.483***	175.169***
Score (Logrank) Test (df = 9)	339.898***	360.623***	342.944***	204.753***

*p < .1; **p < .05; ***p < .01. Cell entries are from Cox proportional hazards models, adapted for binary choice dependent variables, with standard errors in parentheses. All models are well-fitting, seen in the diagnostic tests and robustness checks for each major issue model in Figures 18 – 37 below.

Table 9: Hazard of Issue Sponsorship Over Committee Tenure, Five Other Issues

	Issue Sponsorship over Issue Committee Tenure (years)				
	Defense (1)	Energy (2)	Commerce (3)	Science/Tech (4)	Transportation (5)
Defense Comm.	0.754*** (0.062)				
Energy Comm.		0.321*** (0.080)			
Commerce Comm.			0.643*** (0.071)		
Sci./Tech Comm.				0.797*** (0.174)	
Trans. Comm.					0.730*** (0.090)
Majority	0.941*** (0.071)	1.013*** (0.080)	0.972*** (0.069)	1.000*** (0.130)	1.022*** (0.085)
Democrat	0.837*** (0.139)	0.784*** (0.160)	0.635*** (0.132)	0.633** (0.254)	0.326** (0.164)
DW-NOM	0.834*** (0.134)	0.926*** (0.151)	0.484*** (0.126)	0.729*** (0.240)	0.310** (0.157)
Maj. Leader	-0.833*** (0.227)	-0.558*** (0.213)	-0.056 (0.156)	0.095 (0.268)	-0.689*** (0.255)
Min. Leader	-0.064 (0.187)	-0.296 (0.240)	-0.059 (0.176)	-0.090 (0.362)	0.326* (0.189)
Delegation	0.0002 (0.002)	-0.003 (0.002)	-0.001 (0.002)	0.005* (0.003)	0.0005 (0.002)
Comm. Chair	-1.183*** (0.109)	-1.328*** (0.132)	-1.157*** (0.108)	-1.565*** (0.231)	-1.219*** (0.131)
Subcom. Chair	-0.866*** (0.071)	-1.000*** (0.081)	-0.769*** (0.068)	-0.787*** (0.126)	-0.847*** (0.084)
N	4,107	4,107	4,107	4,107	4,107
R ²	0.093	0.078	0.078	0.030	0.057
Max. Possible R ²	0.998	0.990	0.999	0.838	0.986
Log Likelihood	-12,436.860	-9,392.917	-13,250.110	-3,677.196	-8,679.439
Wald Test (df = 9)	438.520***	362.160***	367.960***	133.220***	260.470***
LR Test (df = 9)	401.795***	333.981***	333.589***	125.669***	239.128***
Score (Logrank) Test (df = 9)	452.194***	379.819***	381.039***	139.832***	270.507***

*p < .1; **p < .05; ***p < .01. Cell entries are from Cox proportional hazards models, adapted for binary choice dependent variables, with standard errors in parentheses.

While the output in Tables 8 and 9 are strongly supportive of the expectations in H7a and H7b, suggesting legislators adapt to their committee contexts and tailor bill sponsorship to the related issue jurisdiction, regardless of the issue (based on the substantively similar patterns across all issues), consider a different way to view this output. Specifically, see the e^{β} coefficients for the issue committee variables of interest in Table 10. Regarding interpretation, values over one indicate a positive percentage for the hazard of issue sponsorship for issue committee members at each tenure year time

point. For example, $e^{\beta} = 1.65$ means membership on X committee increases the hazard of related issue sponsorship by a factor of 1.65, or 65% at each year time point. Subtracting one from the e^{β} value gives the percentage change moving from 0 (non-membership) to 1 (membership).

Table 10: Exponentiated Coefficients for Issue Committee Membership

	Agriculture	Environment	Education	Foreign Affairs
Committee Member (e^{β})	3.5243	2.0588	2.1251	2.7706
CI Lower (0.95)	2.7959	1.6959	1.7753	2.2586
CI Lower (0.95)	4.4425	2.4993	2.5437	3.3985

*p < .1; **p < .05; ***p < .01. Cell entries are exponentiated beta coefficients for related issue committee membership's impact on hazard of issue sponsorship for the related issue.

First, note that the exponentiated coefficients in Table 10 are all significantly over one, suggesting that membership on the issue committee indeed increases the hazard of issue sponsorship exponentially, in line with the expectations from H7a and H7b. Most strikingly, agriculture committee membership increases the hazard of agriculture sponsorship for each year by a factor of 3.52, or 252%, holding all other covariates constant. The second large effect is on foreign affairs in column 4, where membership on the foreign affairs committee increases the hazard of related sponsorship by a factor of 2.77, or 177%. Next, the education committee and environment committee result in similar effects, where the hazard of related sponsorship increases 113% and 106% for each committee at each year time point in columns 3 and 2, respectively.

For a more intuitive look at the findings from Table 8, see the hazard rates for each issue in individual plots in Figure 16. The plots were generated based on 5000 simulations of the relative hazard rates of related issue sponsorship as a function of increased committee tenure, disaggregated by issue committee membership. The exponential patterns in each of these plots visually corroborates the main findings

discussed to this point. Across all results in Tables 8, 10, 9, and also in Figure 16, the expectations from H7a and H7b are strongly supported. Being on a committee exponentially increases the likelihood of sponsoring related bills on average, regardless of the issue.

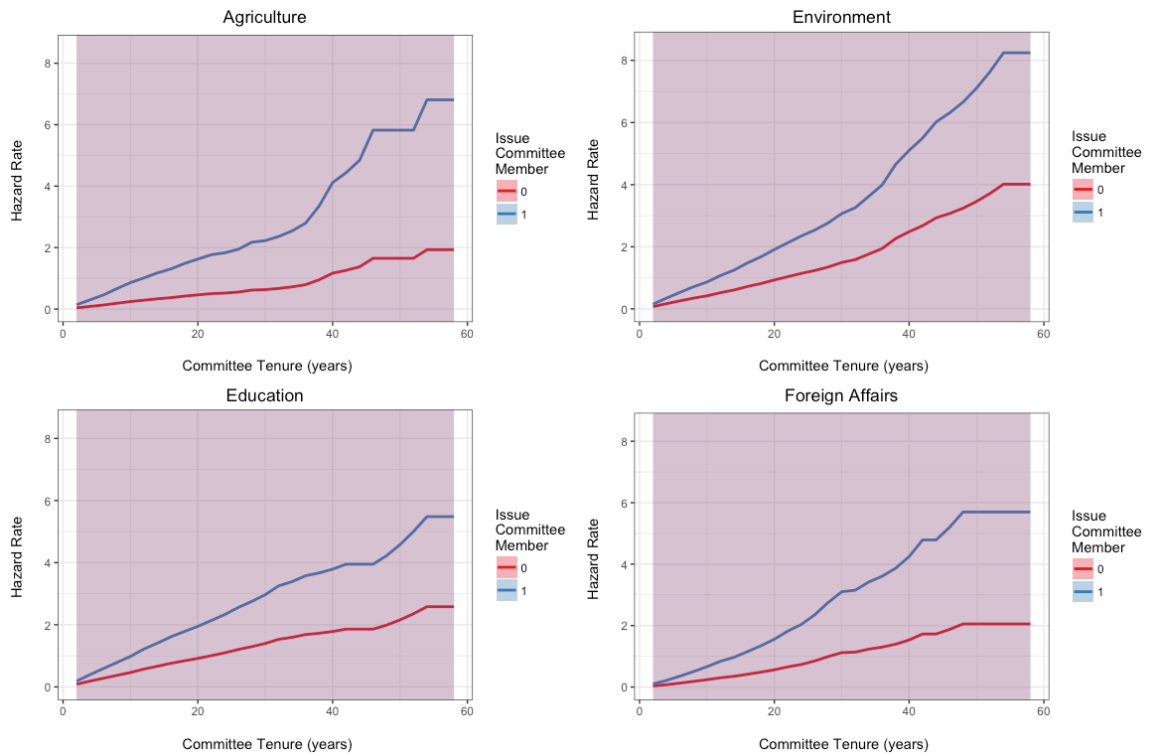


Figure 16: Hazard of Issue Sponsorship over Related Committee Tenure

Hazard Functions Comparing Substantive to Non-Substantive Issues. While the analysis on the hazard of issue sponsorship as a function of related committee assignment to this point has supported the expectations, further clarity is needed on determining whether there is a difference between substantive issues (like those addressed thus far) and non-substantive issues. Such a test is needed to determine whether legislators truly adapt to their committee contexts as they decide whether to specialize or not. If specialization is the goal, and not the issue, then we would expect to see a similar pattern across

substantive and non-substantive issues in line with H7c, suggesting legislators tailor sponsorship to their committee contexts, whatever they may be.

To do generate this test, I estimate the same hazard function in Equation 1, but for government operations, which, by comparison is a non-substantive issue, as both parties have the functional responsibility of keeping the government operating. Due to space, I only include the plot of the results for the relationship of interest in Figure 17. The patterns in Figure 17 are based on the model output in Table 11.

Table 11: Government Operations Test

	Government Operations Sponsorship Over Related Committee Tenure (years)
Gov. Ops. Comm.	0.480*** (0.090)
Majority	0.901*** (0.058)
Dem	0.686*** (0.113)
DW-NOM	0.809*** (0.107)
Maj. Leader	-0.041 (0.129)
Min. Leader	0.253* (0.133)
Delegation	-0.001 (0.001)
Comm. Chair	-1.351*** (0.098)
Subcom. Chair	-0.816*** (0.058)
N	4,107
R ²	0.109
Max. Possible R ²	1.000
Log Likelihood	-18,394.510
Wald Test	498.940*** (df = 9)
LR Test	473.798*** (df = 9)
Score (Logrank) Test	517.720*** (df = 9)

*p < .1; **p < .05; ***p < .01. Cell entries are from Cox proportional hazards models, adapted for binary choice dependent variables, with standard errors in parentheses.

Figure 16 demonstrates strong visual support for the expectation in H7c, where a substantively similar pattern was expected for substantive and non-substantive issues. Where the previous results for substantive issues showed that across all major issues explored in this analysis, likelihood of sponsorship increases for related committee

members relative to non-members, on average. Such is the same case for members of the non-substantive government operations committee shown in Figure 17. Members relative to non-members are more likely to sponsors related issue bills, with this likelihood increasing exponentially.

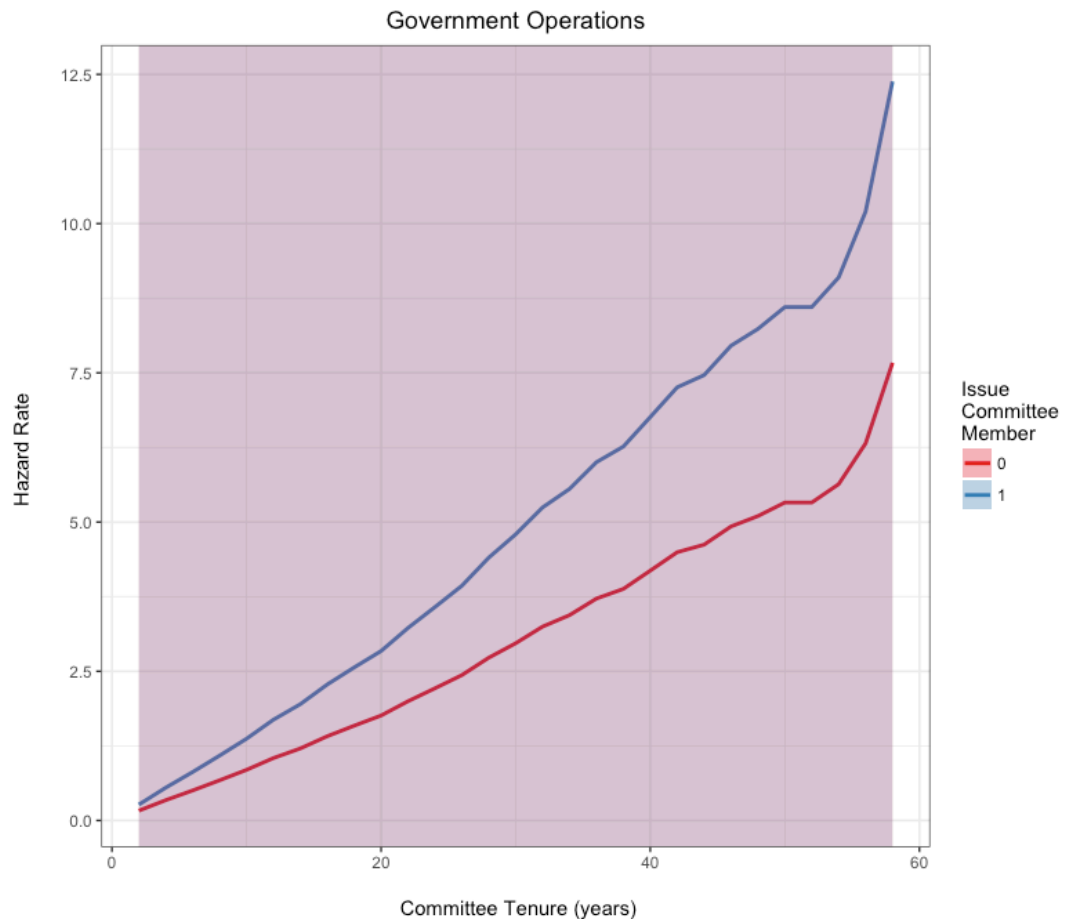


Figure 17: Hazard of Issue Sponsorship over Committee Tenure: Government Operations

Mismatched Issues for Committees and Bills. Given the findings to this point that, on average, membership on a committee results in a higher likelihood of related issue sponsorship, relative to non-members. These effects increase exponentially as committee

tenure increases, and are substantively similar across all issues, substantive and non-substantive.

Finally, based on the definition of issue specialization offered and tested above using exploratory factor analysis, the expectations in H8, suggest that the issues comprising the committees' jurisdictions and the resultant topics of bill sponsorship must be in alignment. To test whether the two conditions of issue specialization are necessary, the critical test of the expectations in H8 mismatches issues for committees (condition 1) and behavior (condition 2). As the expectation is for the issues to be in alignment, null findings for the committee variable would provide support in this regard. Specifically, I estimate the hazard function in Equation 1, for agriculture sponsorship as a function of education committee membership. If the findings for the committee variable are indistinguishable from zero, this would suggest that membership on the education committee does not increase the hazard of sponsorship in an unrelated issue area. If the findings are significant, then this would suggest that the committees and sponsorship issues do not have to be in alignment, where sponsorship on any issue, regardless of committee membership combine to result in issue specialization. See the model output in Table 12, followed by three additional models along the same lines, but with other mismatched issues in Table 13.

Table 12: Mismatched Issues for Committees and Bills

	Agriculture Sponsorship over Education Committee Tenure (years)
Educ. Lab. Comm.	-0.276 (0.204)
Majority	1.007*** (0.104)
Democrat	0.505** (0.209)
DW-NOM	0.553*** (0.201)
Maj. Leader	-0.699** (0.307)
Min. Leader	0.268 (0.238)
Delegation Size	-0.010*** (0.003)
Comm. Chair	-1.329*** (0.176)
Subcom. Chair	-1.123*** (0.111)
N	4,107
R ²	0.044
Max. Possible R ²	0.930
Log Likelihood	-5,360.633
Wald Test	197.010*** (df = 9)
LR Test	186.450*** (df = 9)
Score (Logrank) Test	207.076*** (df = 9)

*p < .1; **p < .05; ***p < .01. Cell entries are from Cox proportional hazards models, adapted for binary choice dependent variables, with standard errors in parentheses.

As expected, the coefficient of -0.276 for the Education and Labor Committee variable is statistically indistinguishable from zero. This offers support for the expectation in H8, and implicitly from the definition of issue specialization, that the issues comprising committee membership and related issue sponsorship must be alignment with each other to result in issue specialization. The same pattern is robust across numerous other issues mismatched across committees and sponsorship Table 13.

Table 13: Mismatched Issues for Committees and Sponsorship, Three Other Tests

	Issue Sponsorship over Issue Committee Tenure (years)		
	Transportation	Energy	Defense
	(1)	(2)	(3)
Commerce Comm.	-0.079 (0.115)		
Foreign Affairs Comm.		-0.072 (0.134)	
Sci./Tech Comm.			0.003 (0.131)
Majority	1.000*** (0.085)	1.025*** (0.080)	0.908*** (0.071)
Democrat	0.378** (0.164)	0.785*** (0.158)	0.949*** (0.139)
DW-NOM	0.343** (0.158)	0.933*** (0.150)	0.939*** (0.133)
Maj. Leader	-0.744*** (0.255)	-0.539** (0.213)	-0.879*** (0.227)
Min. Leader	0.291 (0.189)	-0.293 (0.240)	-0.138 (0.187)
Delegation Size	-0.001 (0.002)	-0.002 (0.002)	-0.001 (0.002)
Comm. Chair	-1.172*** (0.131)	-1.356*** (0.131)	-1.084*** (0.109)
Subcom. Chair	-0.820*** (0.084)	-1.027*** (0.081)	-0.812*** (0.071)
N	4,107	4,107	4,107
R ²	0.044	0.075	0.064
Max. Possible R ²	0.986	0.990	0.998
Log Likelihood	-8,706.943	-9,400.173	-12,500.970
Wald Test (df = 9)	199.020***	344.400***	294.240***
LR Test (df = 9)	184.120***	319.470***	273.568***
Score (Logrank) Test (df = 9)	206.427***	362.563***	302.075***

*p < .1; **p < .05; ***p < .01. Cell entries are from Cox proportional hazards models, adapted for binary choice dependent variables, with standard errors in parentheses. The models represent three additional pairs of mismatched tests. In the first column (1), commerce committee membership is predicting transportation sponsorship. In the second column (2), foreign affairs committee membership is predicting energy sponsorship. And in the third (3) column, science/tech committee membership is predicting defense bill sponsorship. Note the null coefficients for all committee variables, suggesting the issues must be in alignment.

Checking for Violation of the Proportional Hazards Assumptions. A central assumption in Cox proportional hazards models is the proportional hazards assumption. This assumes that the relative hazard at each time point is proportional across all time points. To check for violation of this assumption, I plot the correlation of the scaled Schoenfeld residuals against a transformed measure of time (committee tenure) for each covariate in each model. Each individual Figure below contains individual plots for each covariate in each model, with each Figure corresponding with each issue model.

The solid lines in each plot represent the smoothing spline, with the dashed lines representing the two-standard error bands corresponding with the upper and lower levels, respectively. Regarding interpretation, systematic departures from a horizontal line, such as S-curves or parabolic shapes are indicative of non-proportional hazards, and thus a violation of the proportional hazards assumption. The key variable of interest is the issue committee membership, which is shown in the top left plot of each Figure corresponding with each hazard model estimated in the paper. In short, we are looking for a relatively straight, smooth line for the upper left plot in each of the Figures below.

In total the assumption of proportional hazards appears to be supported for all committees, with minimal departures from a horizontal line. The only potential exception is the foreign affairs committee, shown by the steadily increasing slope. Importantly, though, in visual assessment of potential violations of the proportional hazards assumption, theory must be the key driver in determining whether to keep or exclude potentially problematic variables from the model. Given the centrality of issue committee membership to the theoretical assertions throughout the paper, I opted to keep the foreign affairs committee variable in the full model specification in the paper.

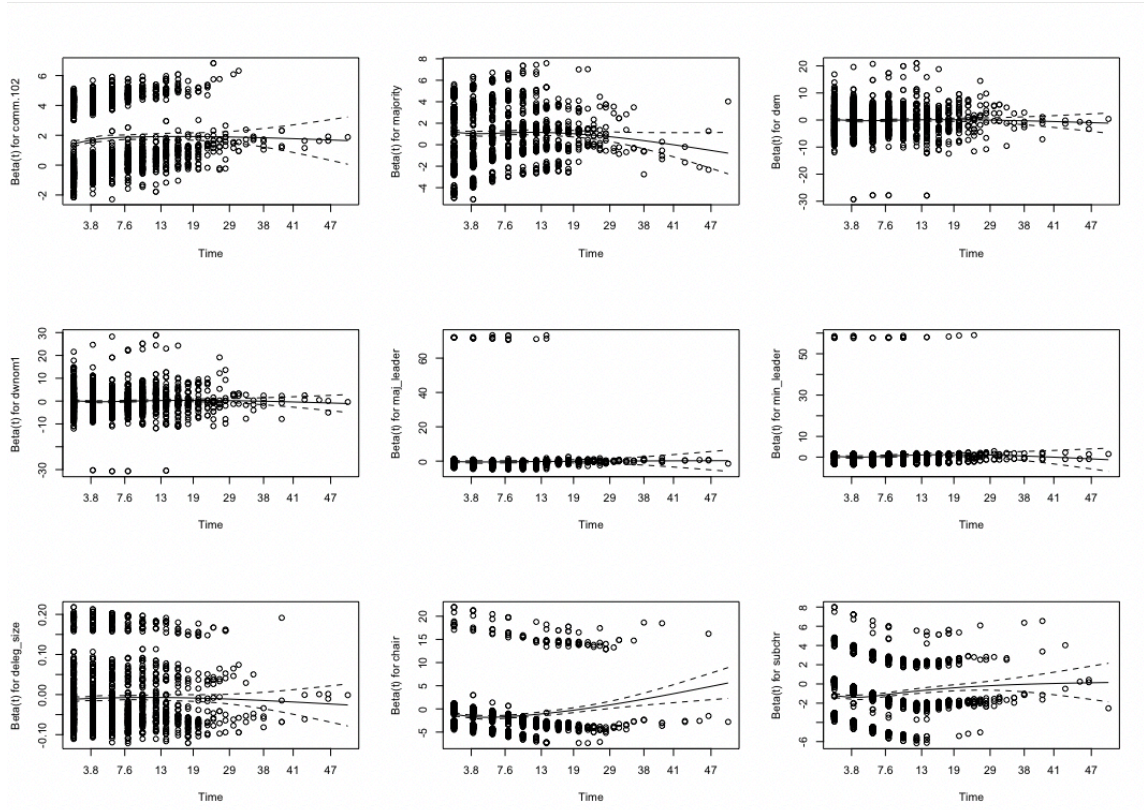


Figure 18: Proportional Hazards Assumption Test: Agriculture Model

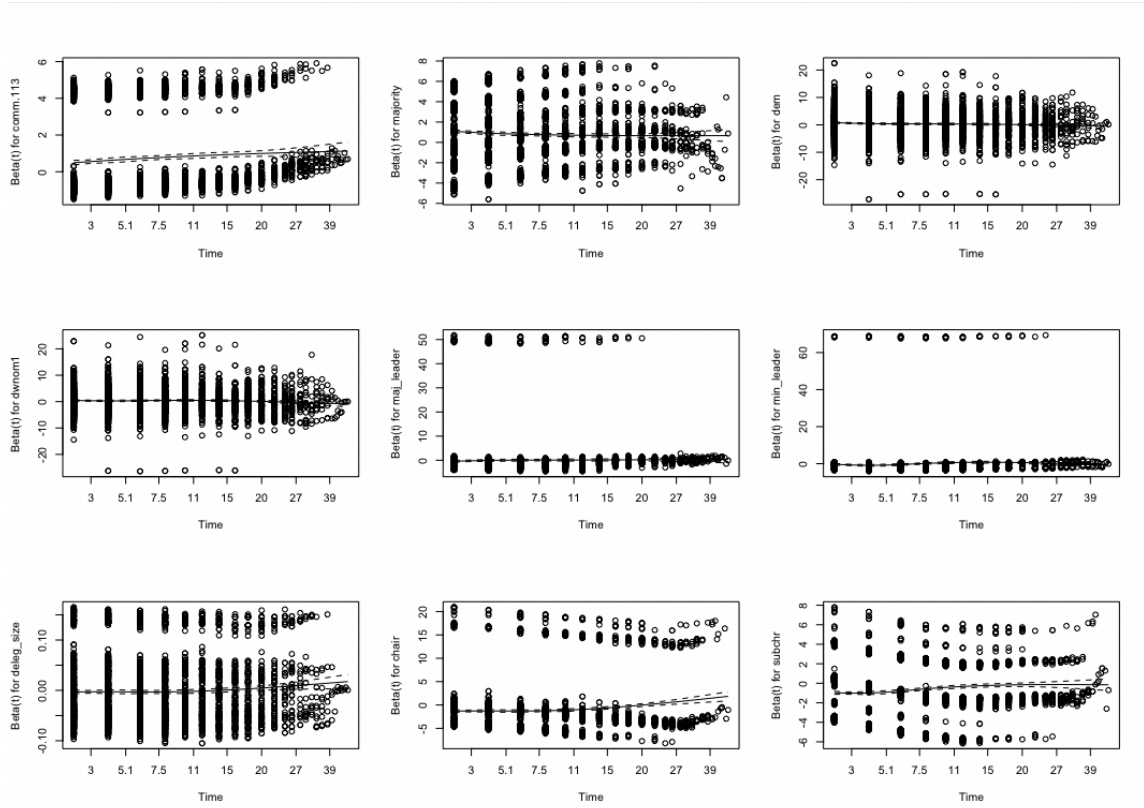


Figure 19: Proportional Hazards Assumption Test: Commerce Model

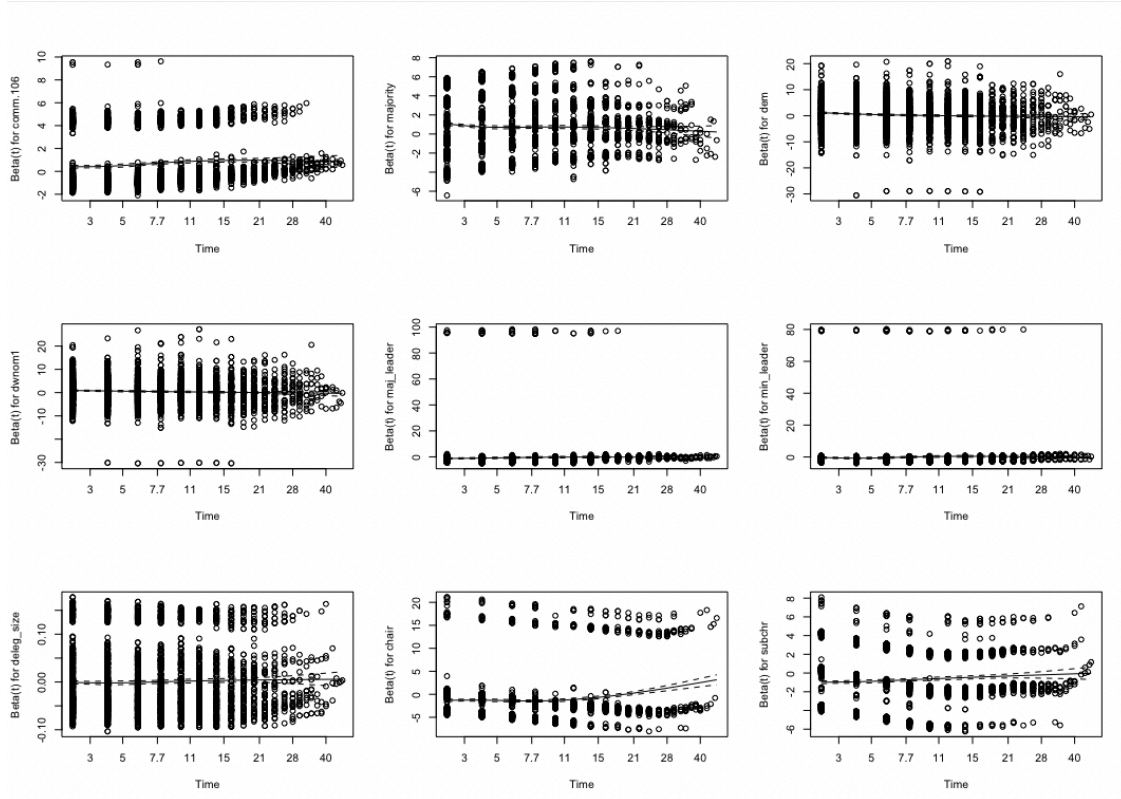


Figure 20: Proportional Hazards Assumption Test: Defense Model

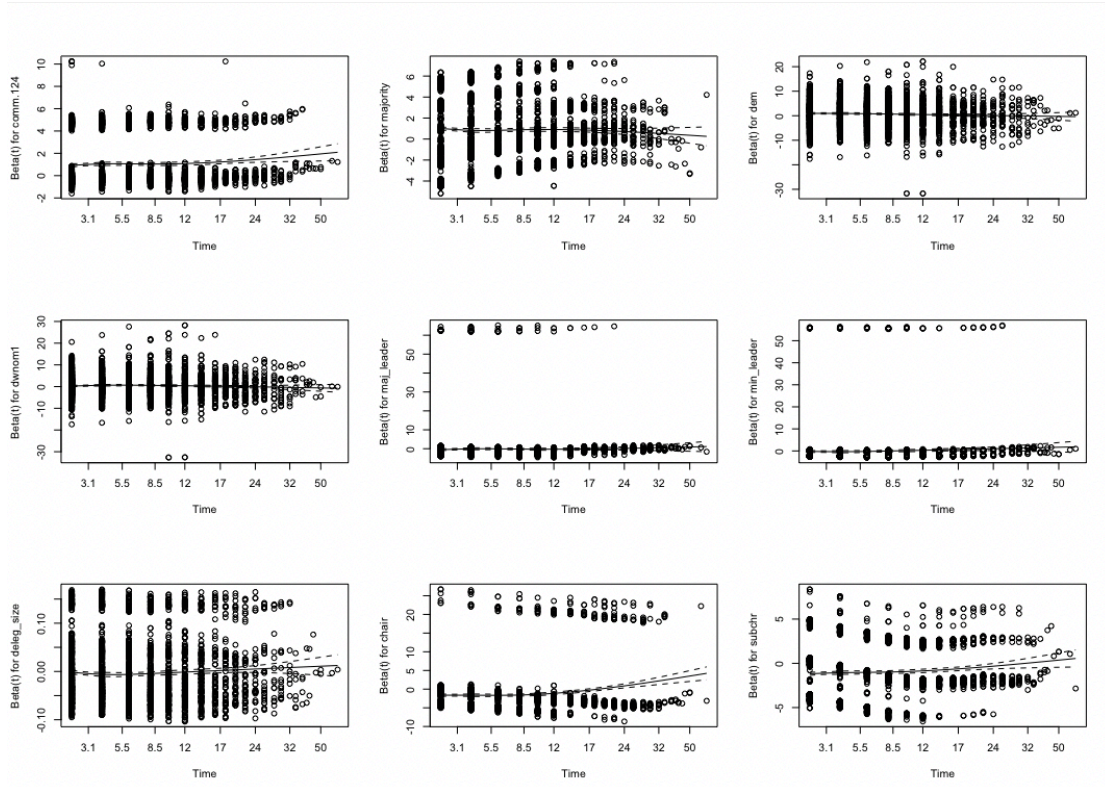


Figure 21: Proportional Hazards Assumption Test: Education Model

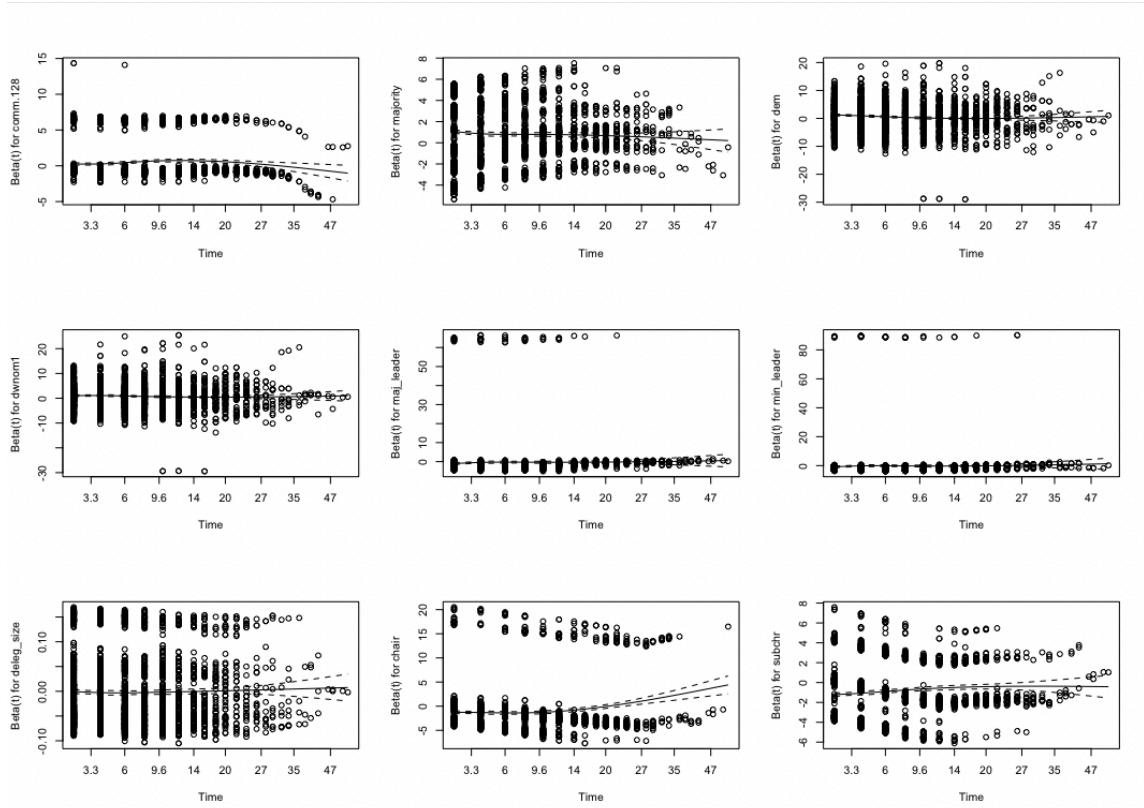


Figure 22: Proportional Hazards Assumption Test: Energy Model

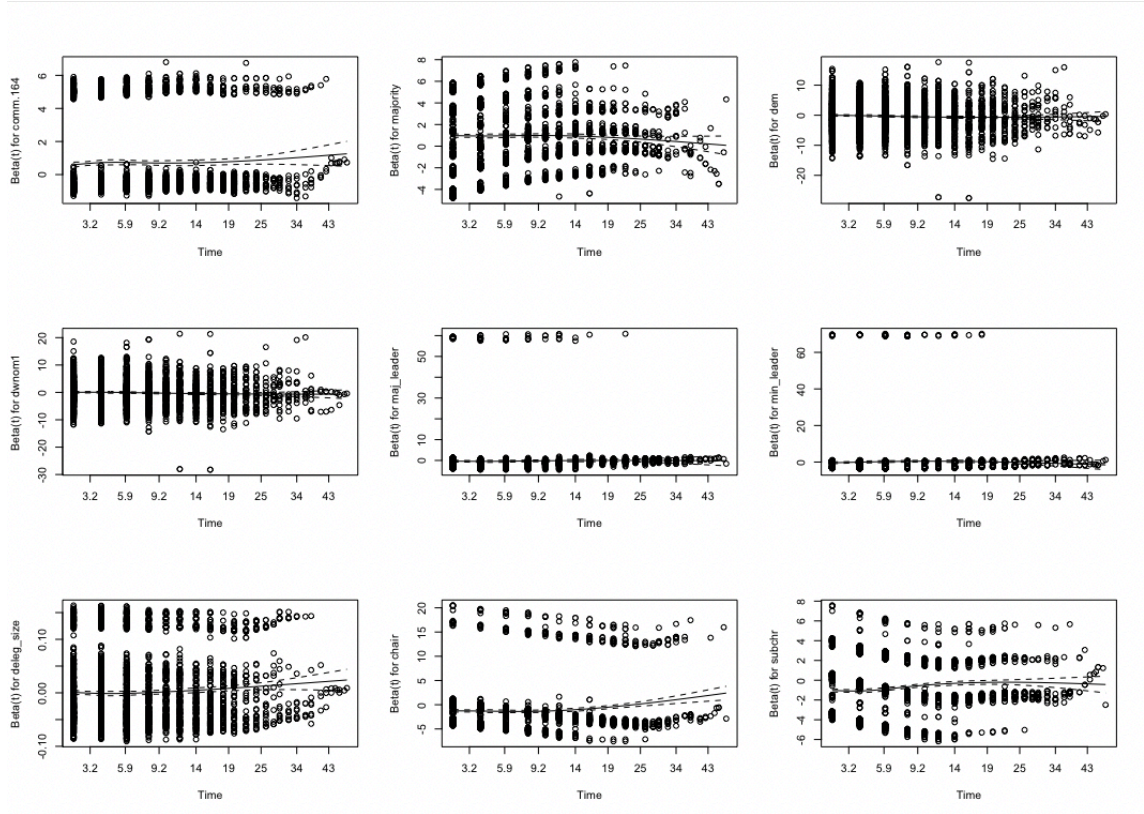


Figure 23: Proportional Hazards Assumption Test: Environment Model

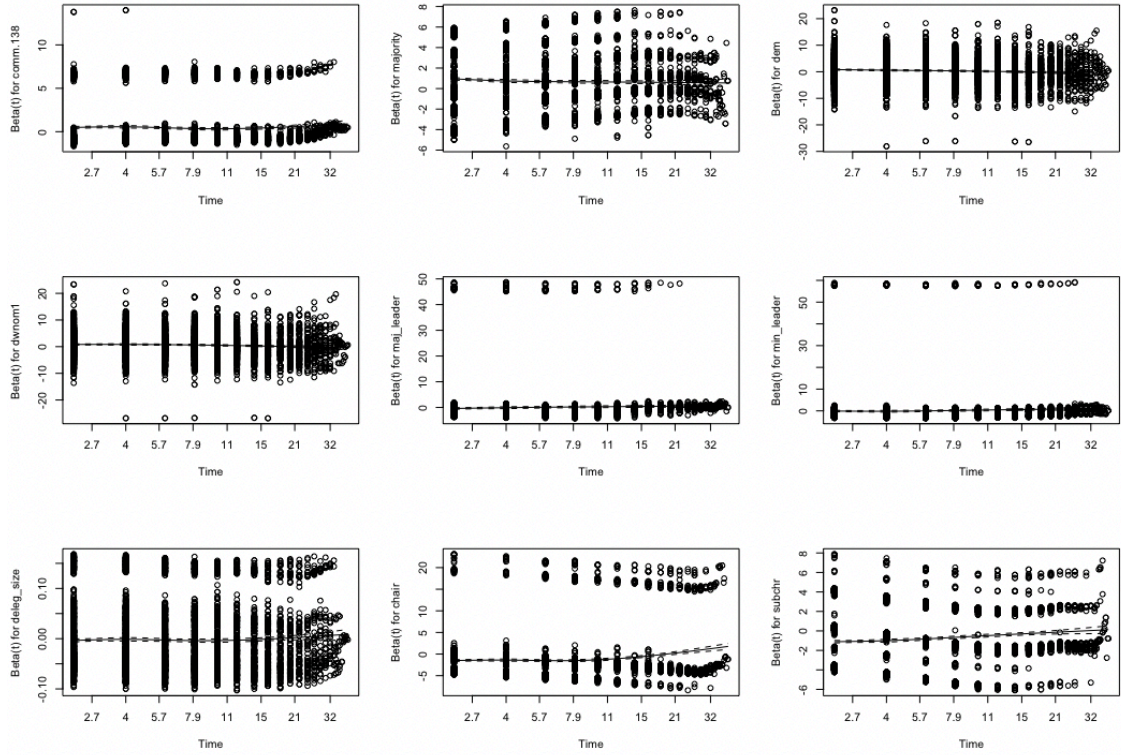


Figure 24: Proportional Hazards Assumption Test: Government Operations Model

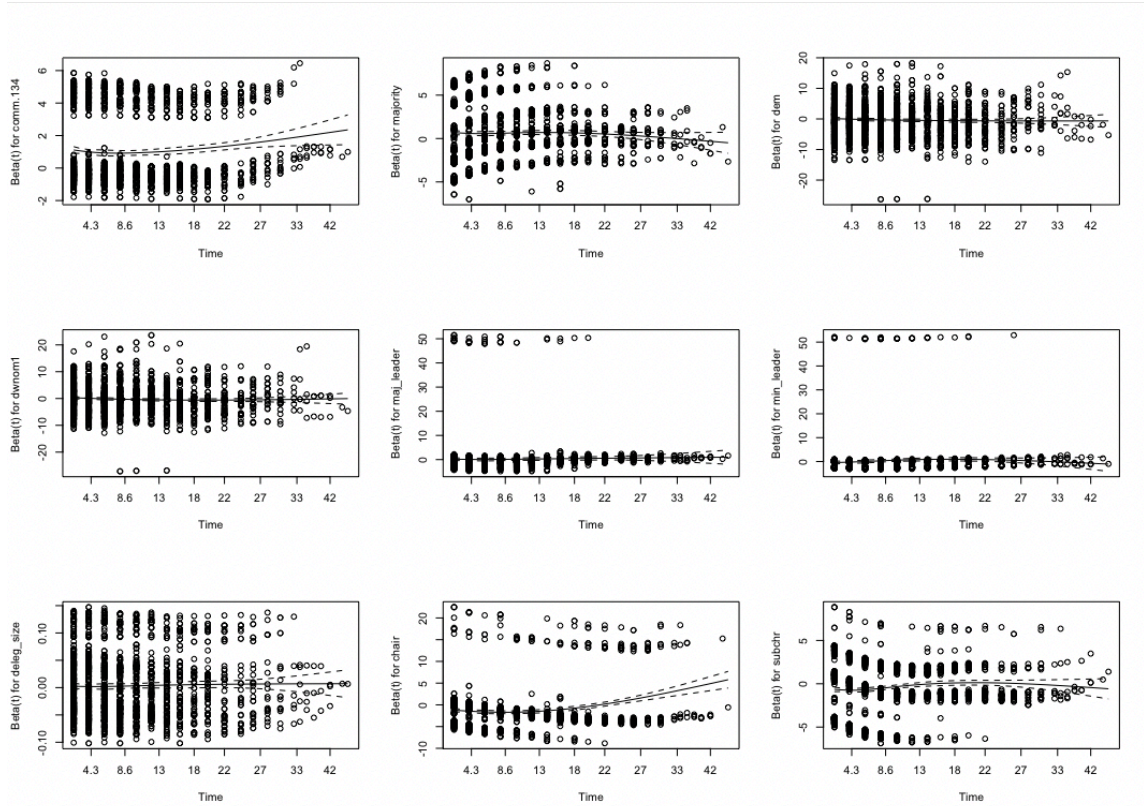


Figure 25: Proportional Hazards Assumption Test: Foreign Affairs Model

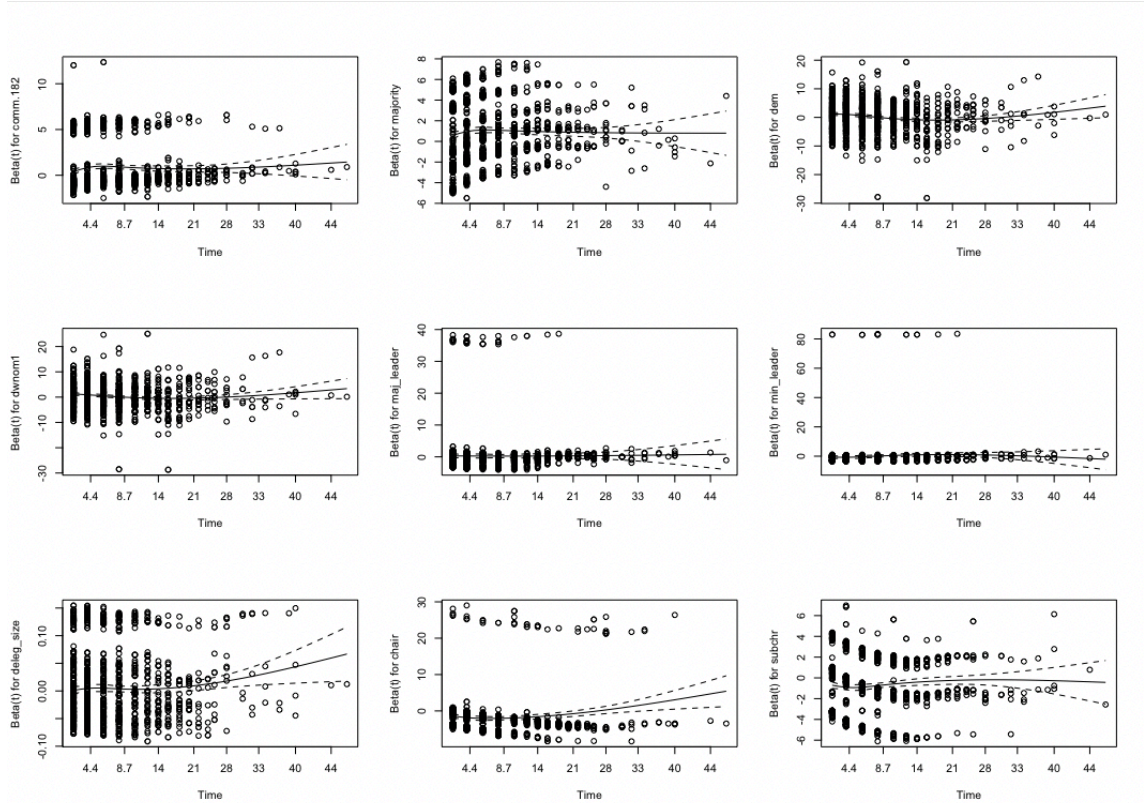


Figure 26: Proportional Hazards Assumption Test: Science/Technology Model

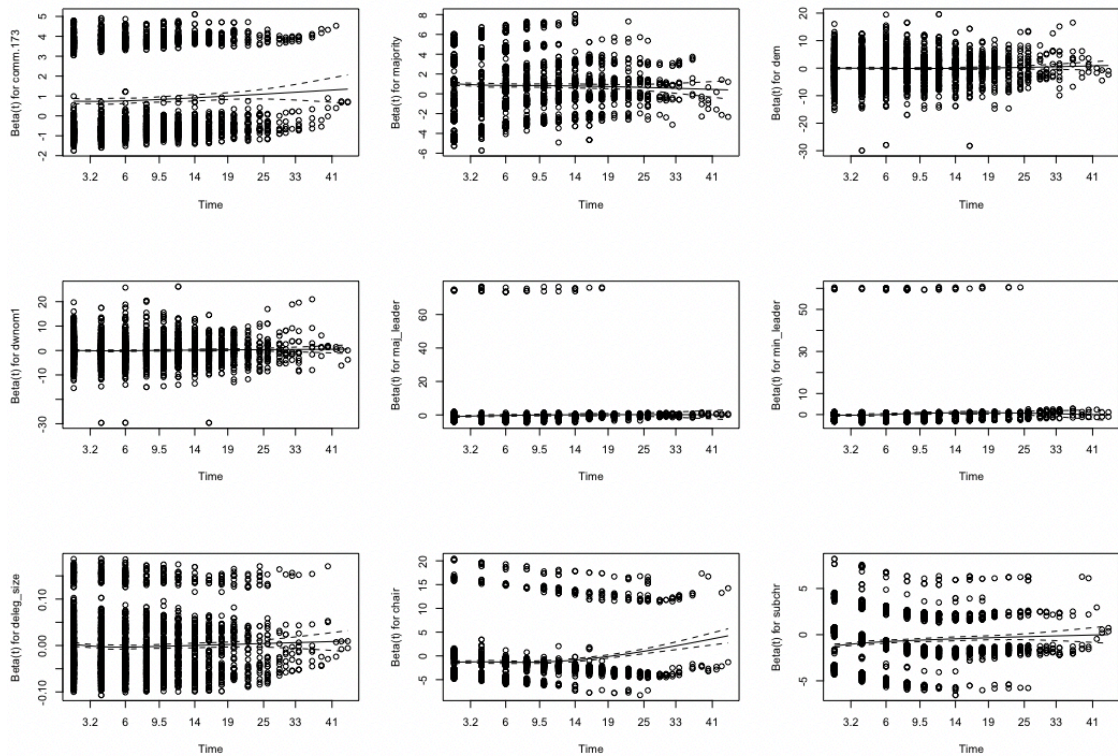


Figure 27: Proportional Hazards Assumption Test: Transportation Model

Checking for Influential Observations using Score Residuals

As in any regression model, the presence of one or a few influential observations can cause a great deal of harm to estimation and inferences in the form of bias. Duration models and Cox proportional hazards models specifically, are no exception. Box-Steffensmeier and Jones (2004, 127-130) recommend using score residuals to visually check for the presence and pull of influential observations. Specifically, they note “score residuals can be used in conjunction with the variance-covariance matrix of parameter estimates to approximate [an] iterative deletion process” (128). This method for checking for the presence and pull of influential observations plots the change in the coefficient exerted by each observation, across each covariate in each issue model. Influential observations are those that stray from the zero cut-line, which is typically where the concentration of observations lie, suggesting the given observation is substantially altering the estimated coefficient.

In examining the individual score residual plots for each issue model below, similar to the previous exploration of the violation for the proportional hazards assumption, we are concerned most with the upper left plot in each figure corresponding with issue committee membership, as this is the consistent covariate of interest throughout.

Seen in all plots below, though there are several instances of one or a few observations standing out from the cloud of observations, as Box-Steffensmeier and Jones (2004) note, “the y-axis represents the scaled change [measured in standard deviations] to the coefficient” (129). Thus, though there are a few instances of seemingly influential observations, the coefficient estimates are only impacted by fractions of single

standard deviations (e.g., -.008 in the plot corresponding with the education issue model).

Therefore, I conclude that there are no observations that are overly troublesome to my estimates and inferences.

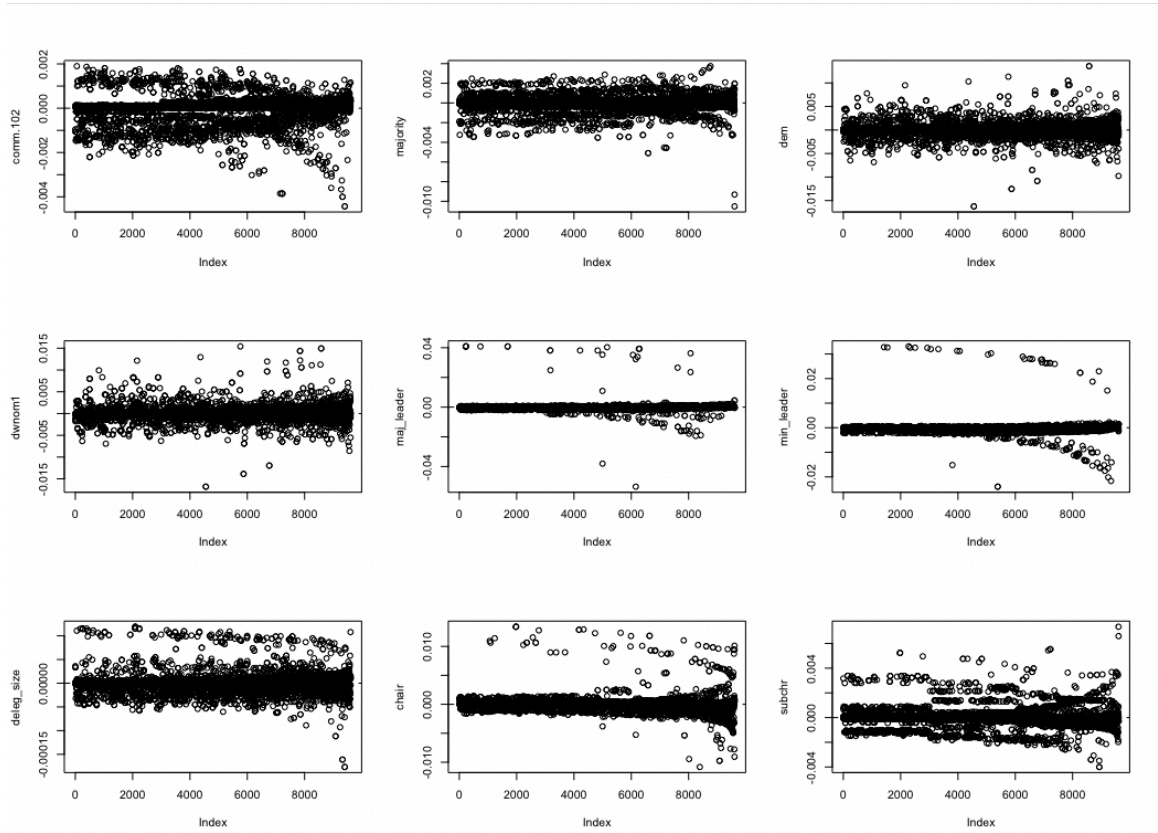


Figure 28: Influential Observations Test: Agriculture Model

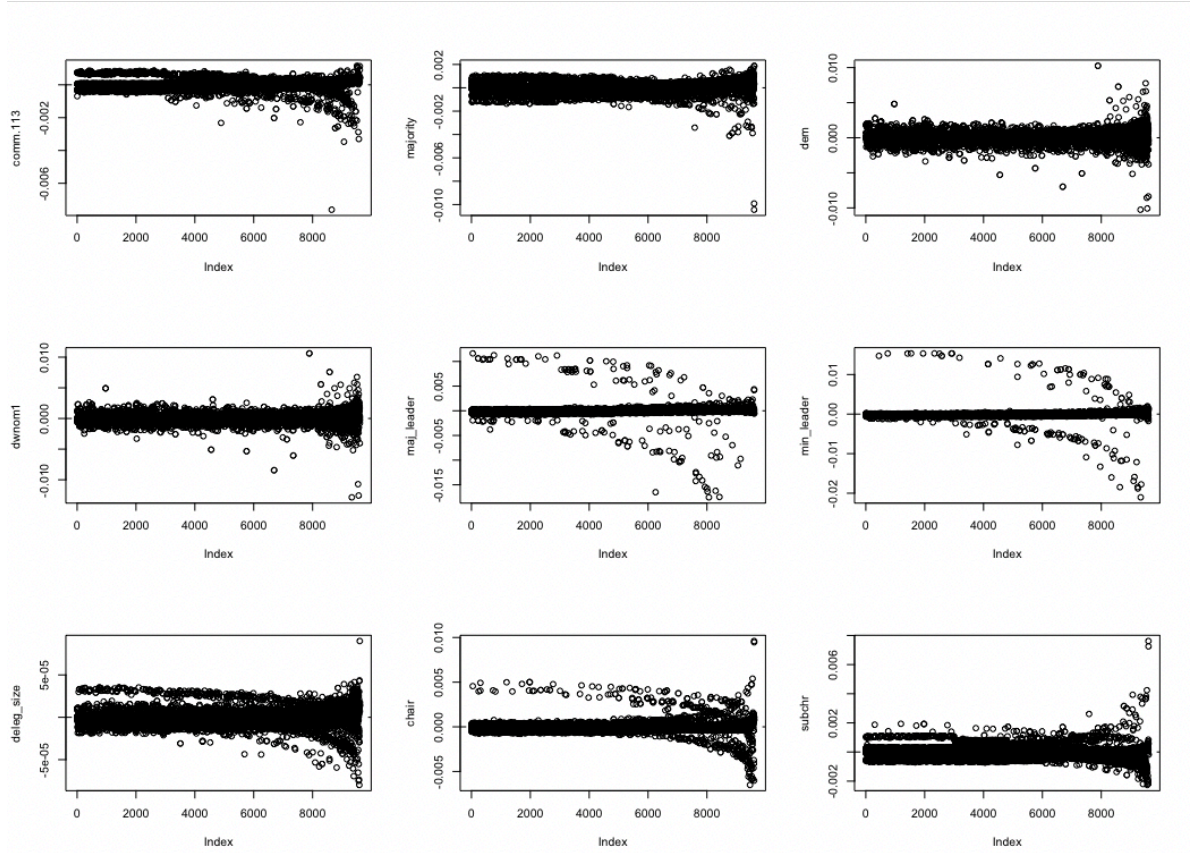


Figure 29: Influential Observations Test: Commerce Model

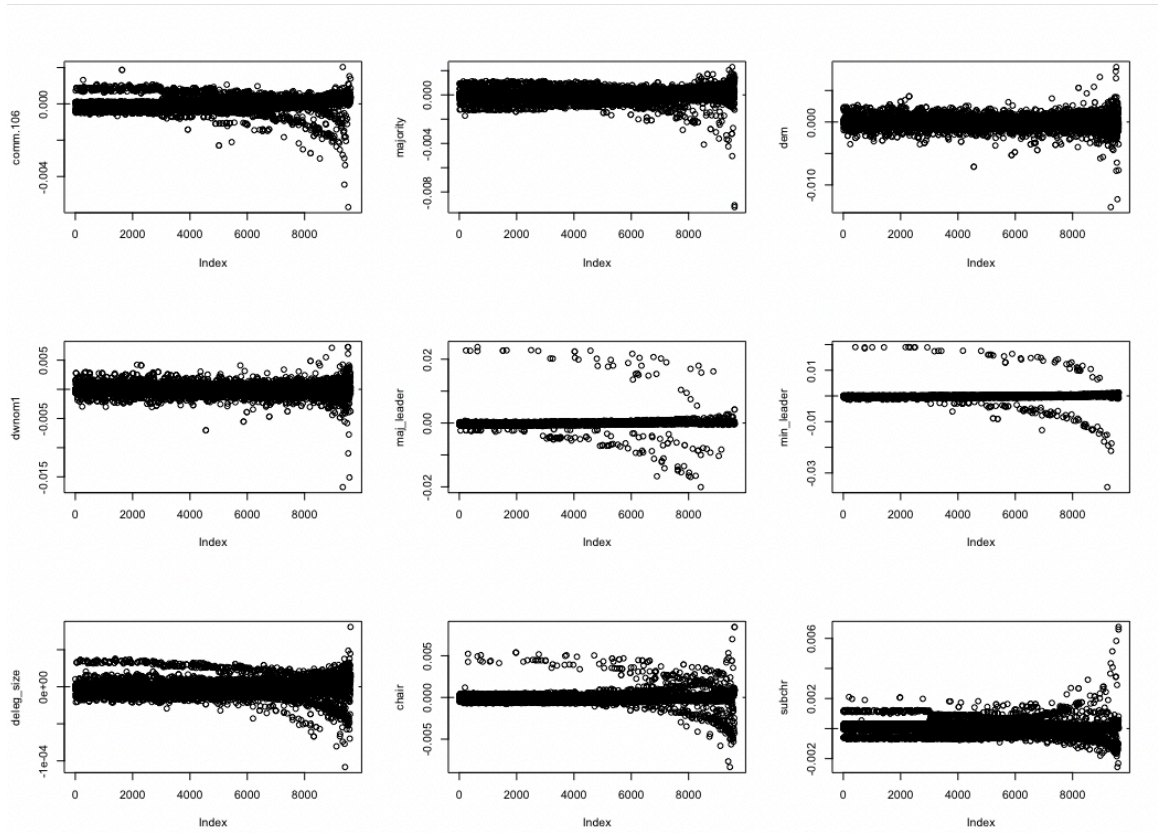


Figure 30: Influential Observations Test: Defense Model

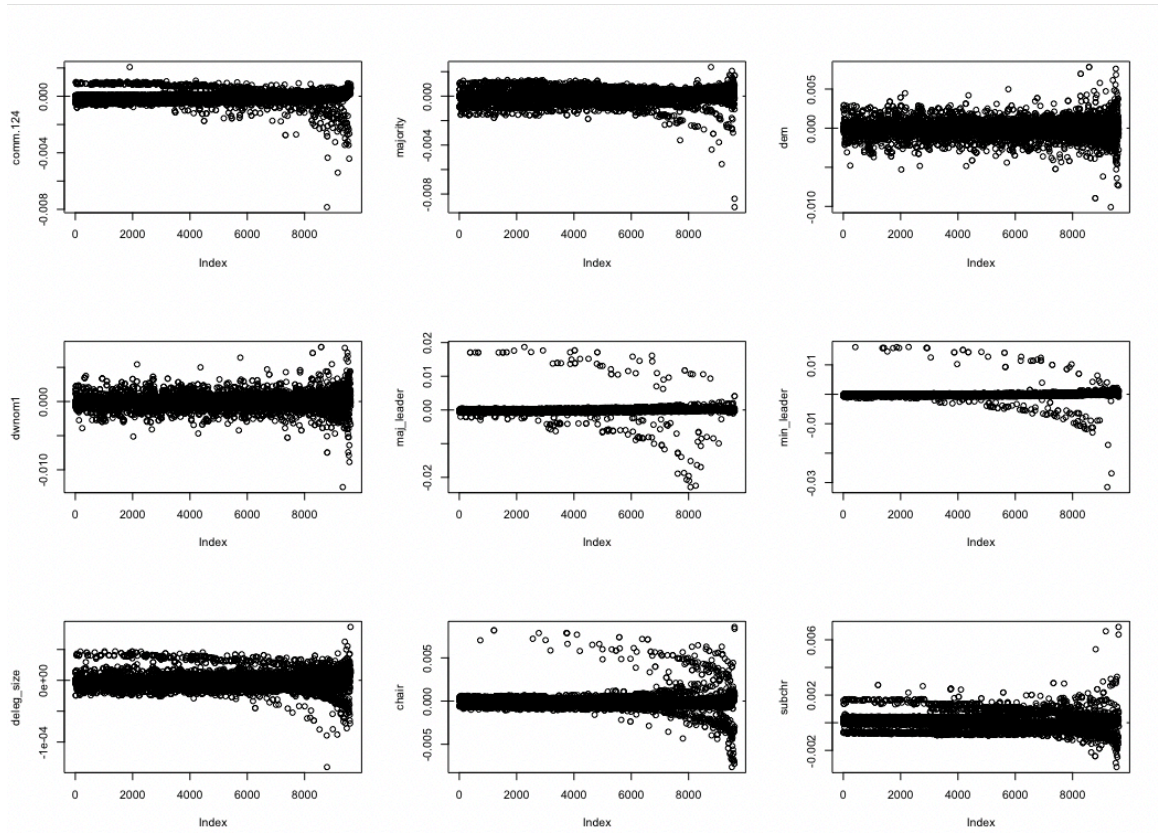


Figure 31: Influential Observations Test: Education Model

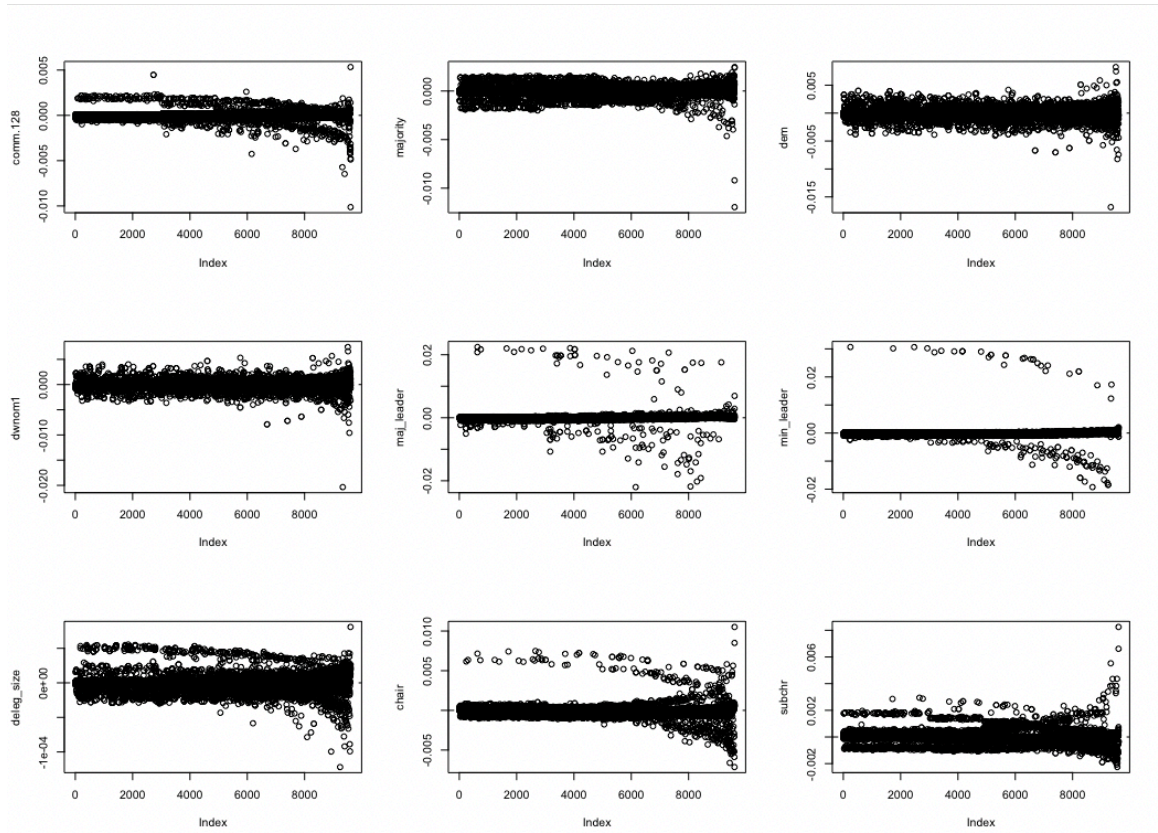


Figure 32: Influential Observations Test: Energy Model

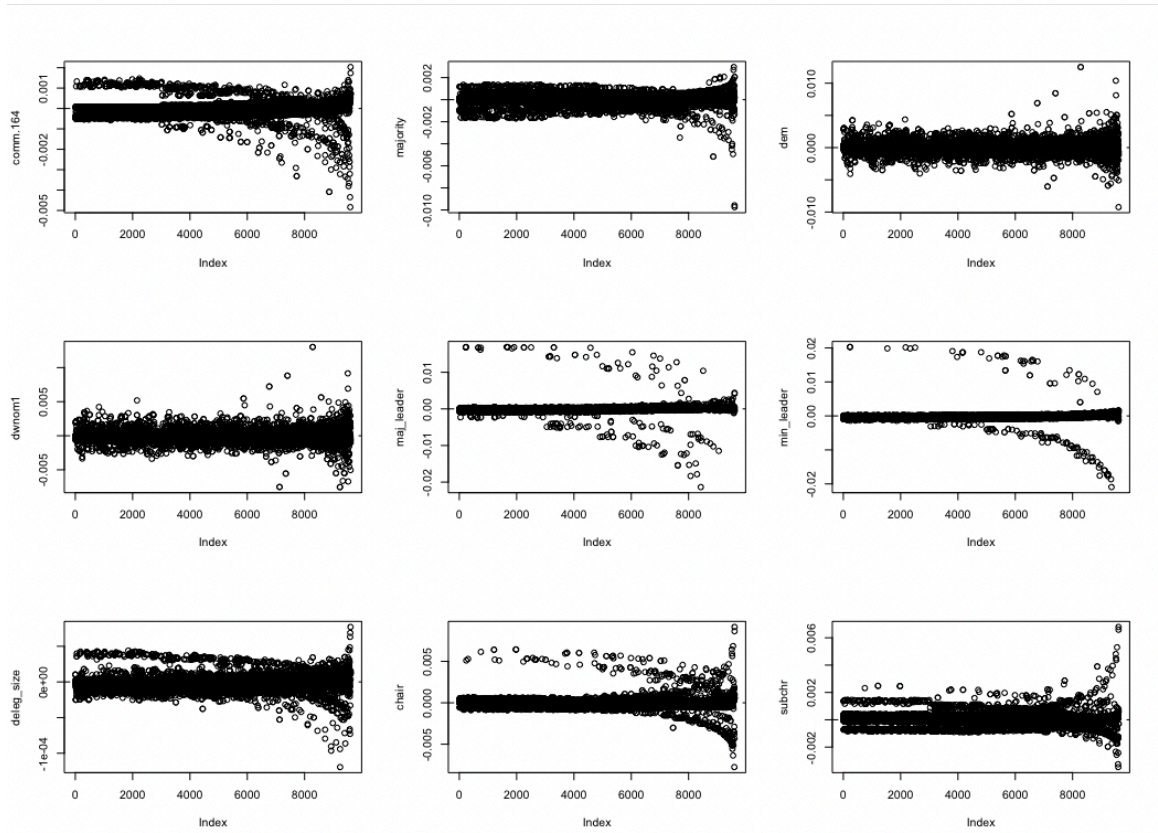


Figure 33: Influential Observations Test: Environment Model

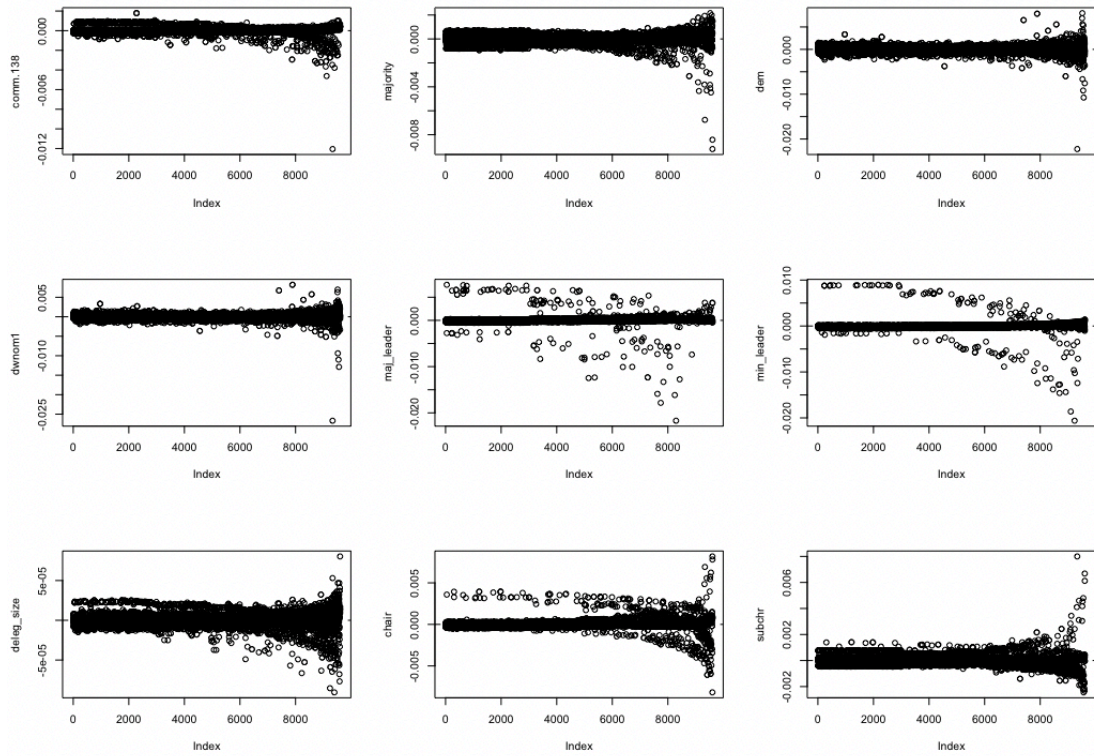


Figure 34: Influential Observations Test: Government Operations Model

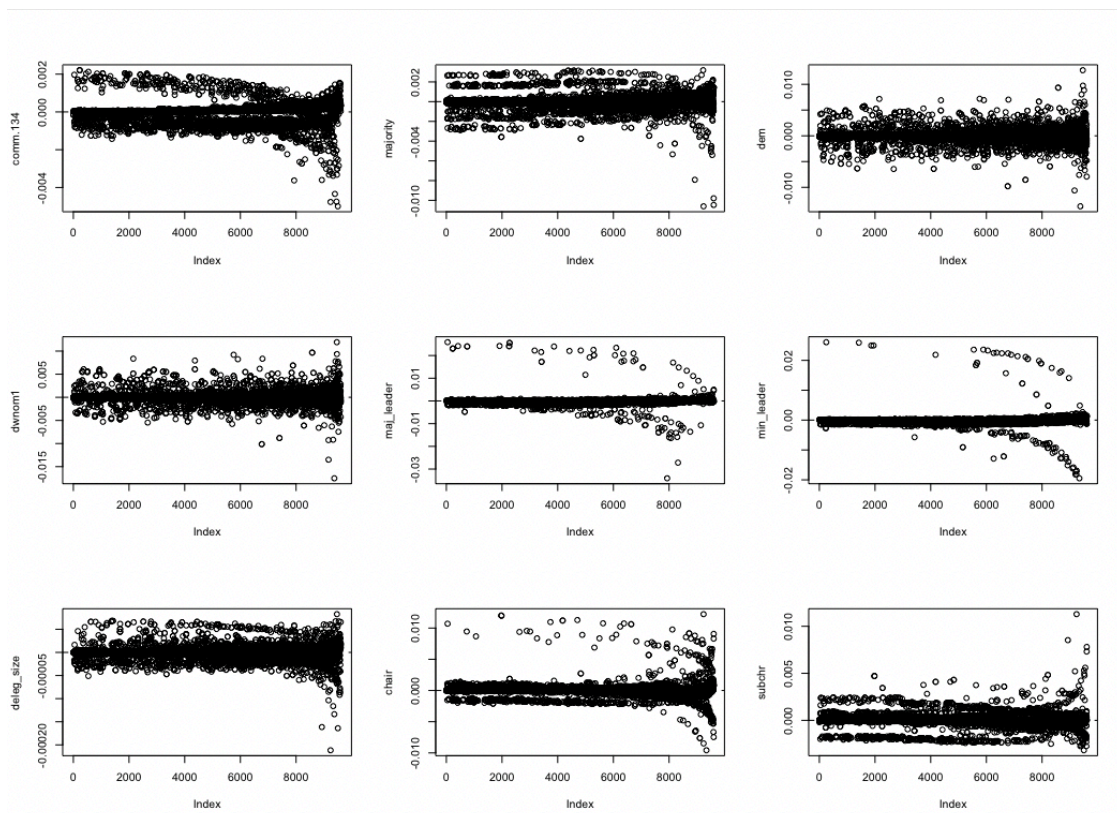


Figure 35: Influential Observations Test: Foreign Affairs Model

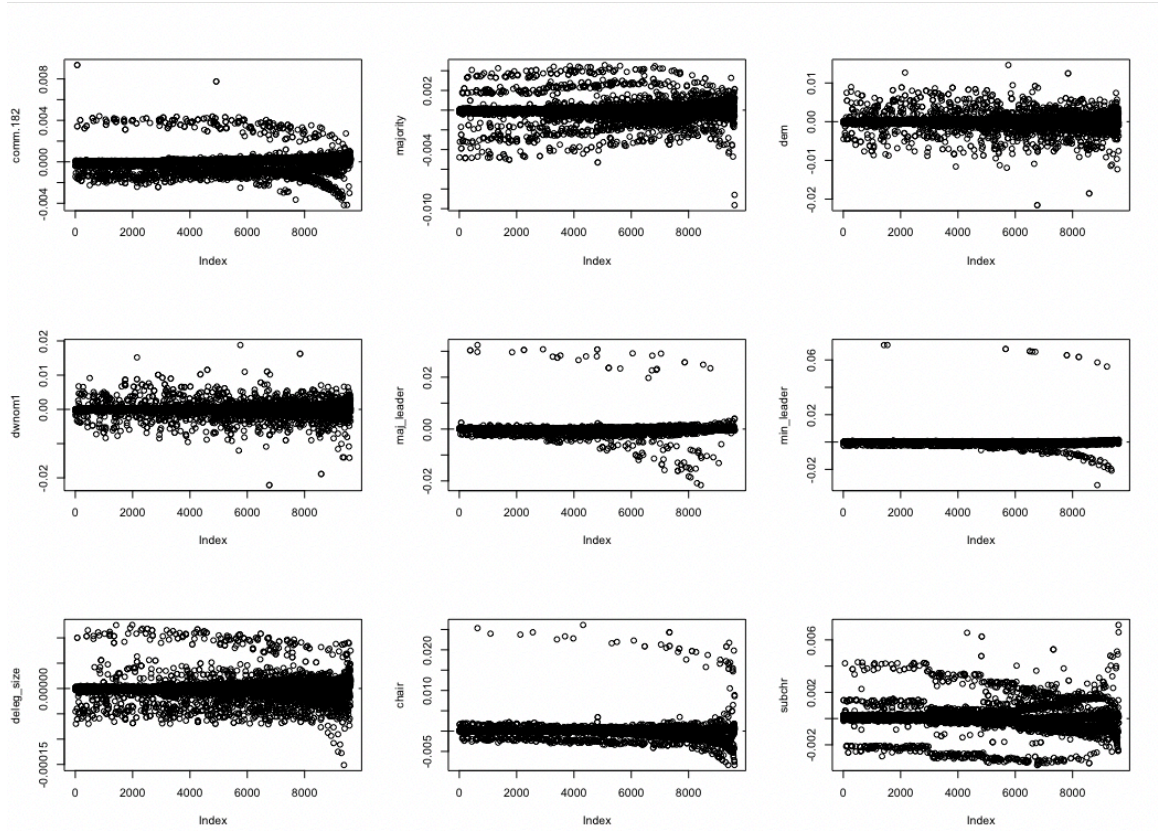


Figure 36: Influential Observations Test: Science Model

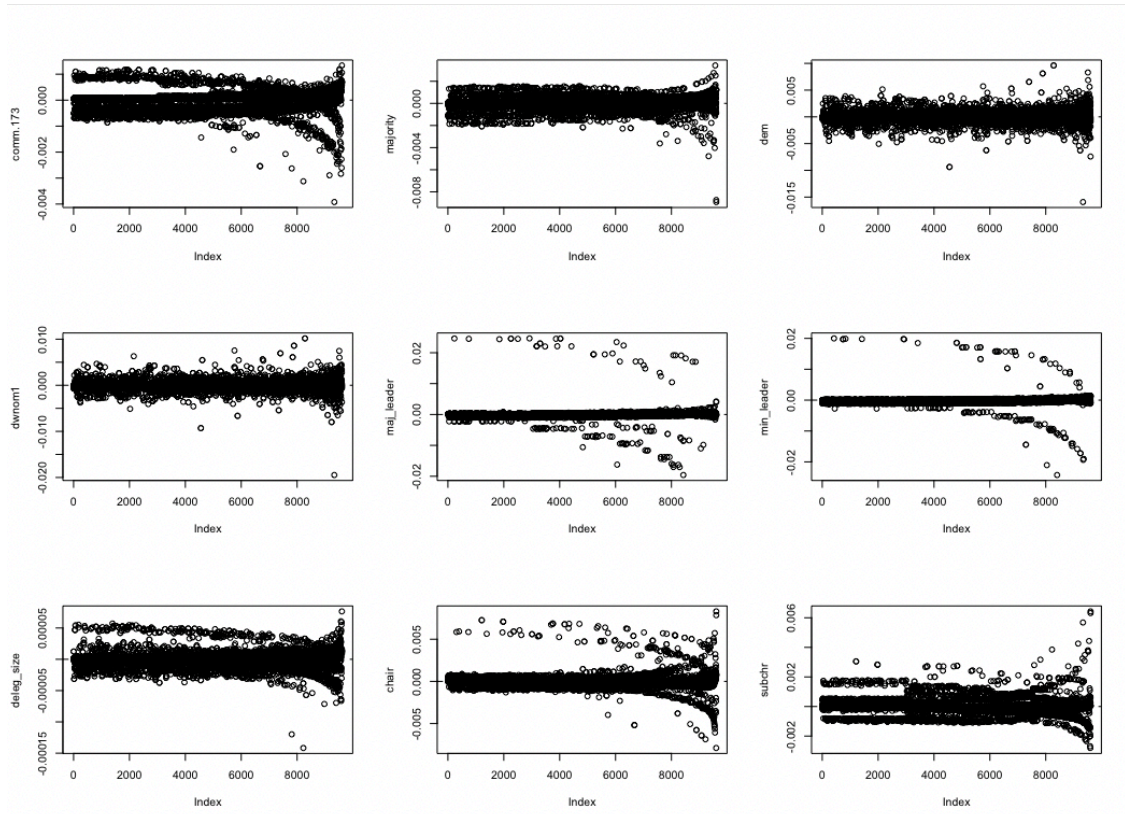


Figure 37: Influential Observations Test: Transportation Model

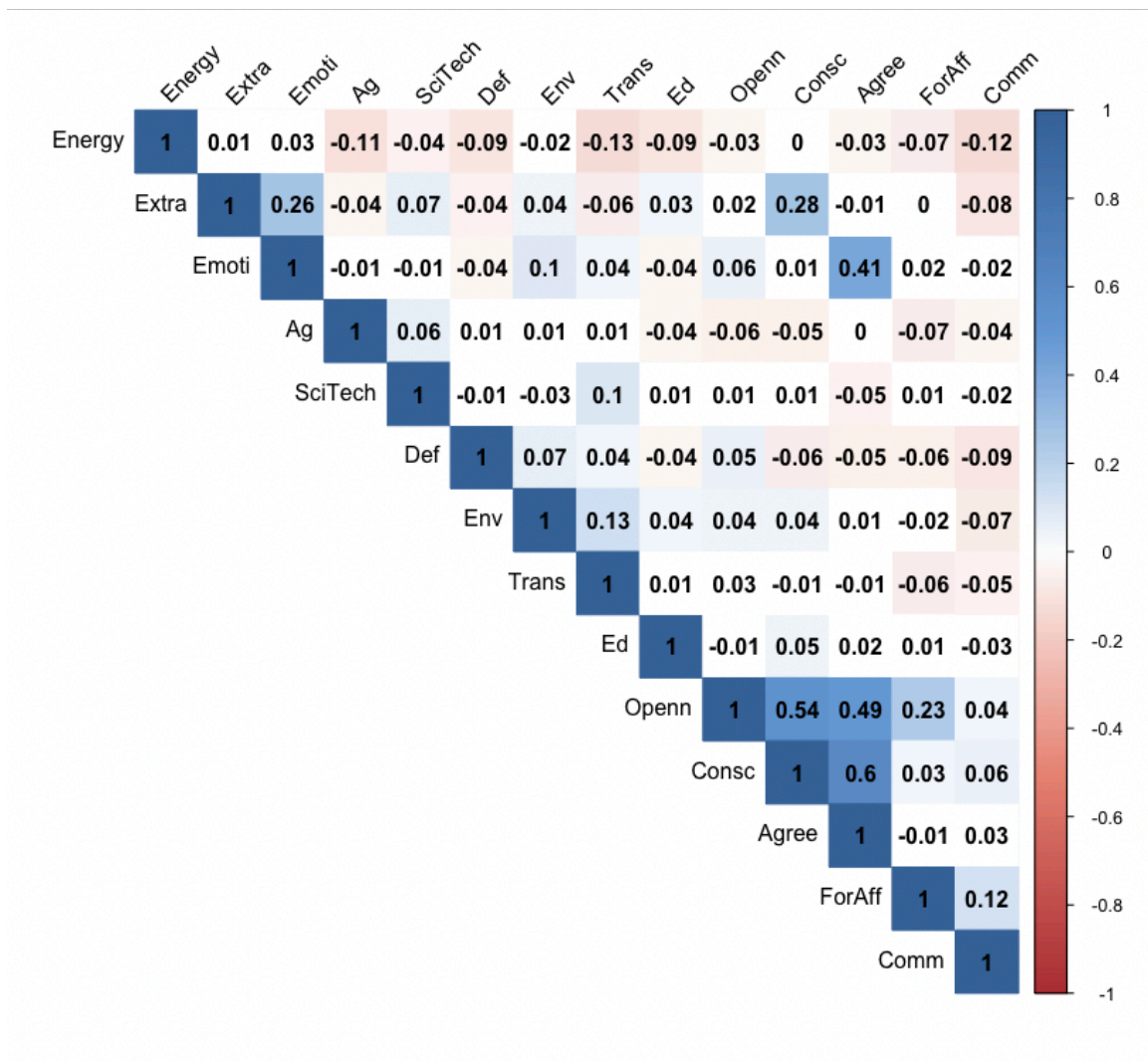


Figure 38: Personality and Issue Correlation Plot

Appendix for Chapter 4

Table 5: Descriptive Statistics for PIP Scores, 108th – 111th Congresses							
Congress	Min.	1 st Quartile	Median	Mean	3 rd Quartile	Max.	Standard Deviation
108	-2.140000	-0.247700	-0.056020	0.003047	0.182800	3.206000	0.4993418
109	-1.712000	-0.231000	-0.040270	0.002173	0.166500	3.796000	0.5003035
110	-1.985000	-0.238200	-0.041290	0.002288	0.222000	1.814000	0.4985394
111	-1.413000	-0.274500	-0.057470	0.005553	0.223600	2.988000	0.494058
Pooled	-2.140000	-0.247900	-0.046360	0.003260	0.198200	3.796000	0.4976413

Validating the Partisan Issue Prioritization Scores

Figures 4 and 5 offer another look at validation of the PIP scores. First, the two panels in Figure 4 display the distribution of the standardized PIP scores, across the range of ideological extremity, with overlaid lowess and fit lines. Ideological extremity is the absolute value of DW-NOMINATE ideal points. The first panel on the left shows the distribution of PIP scores disaggregated by party affiliation, while the second panel on the right displays the PIP scores by majority party status. In both panels, the distribution of PIP scores looks relative normal for Republicans, Democrats, majority party, and minority party members across the range of ideological extremity, with the lowess and fit lines corroborating this visual assessment.

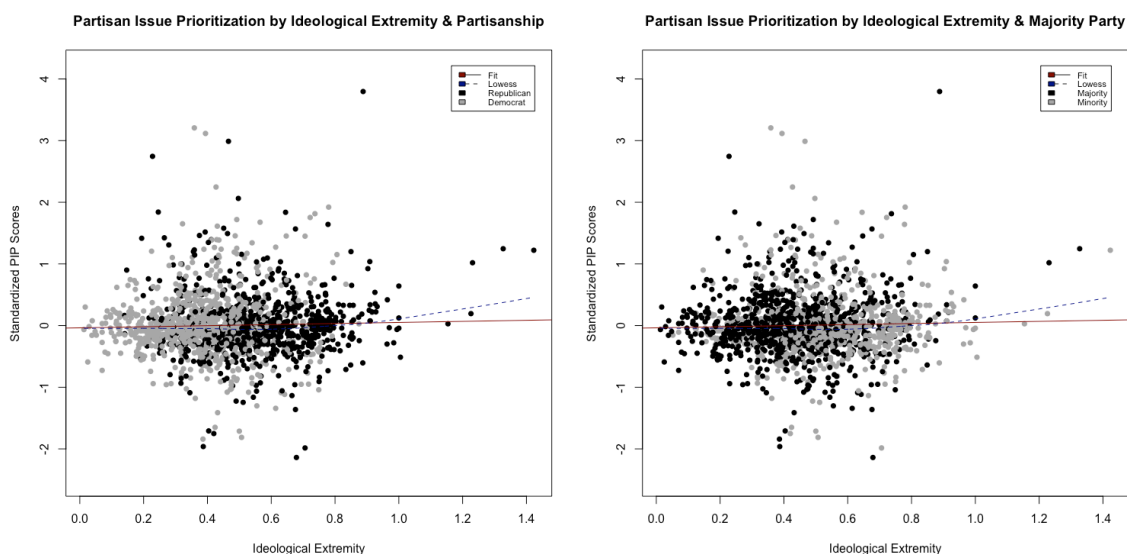


Figure 4: Distribution of PIP Scores Over Ideological Extremity

Further, Figure 5 displays the distribution of PIP scores, but across the range of seniority measured in number of terms served, with overlaid lowess and fit lines. Similar to Figure 4, the distribution looks relative normal with legislators at all levels of seniority

prioritizing both party-owned and non-owned issues in individual sponsorship portfolios, with the most senior legislators slightly skewing the fit in favor of partisan-owned issues.

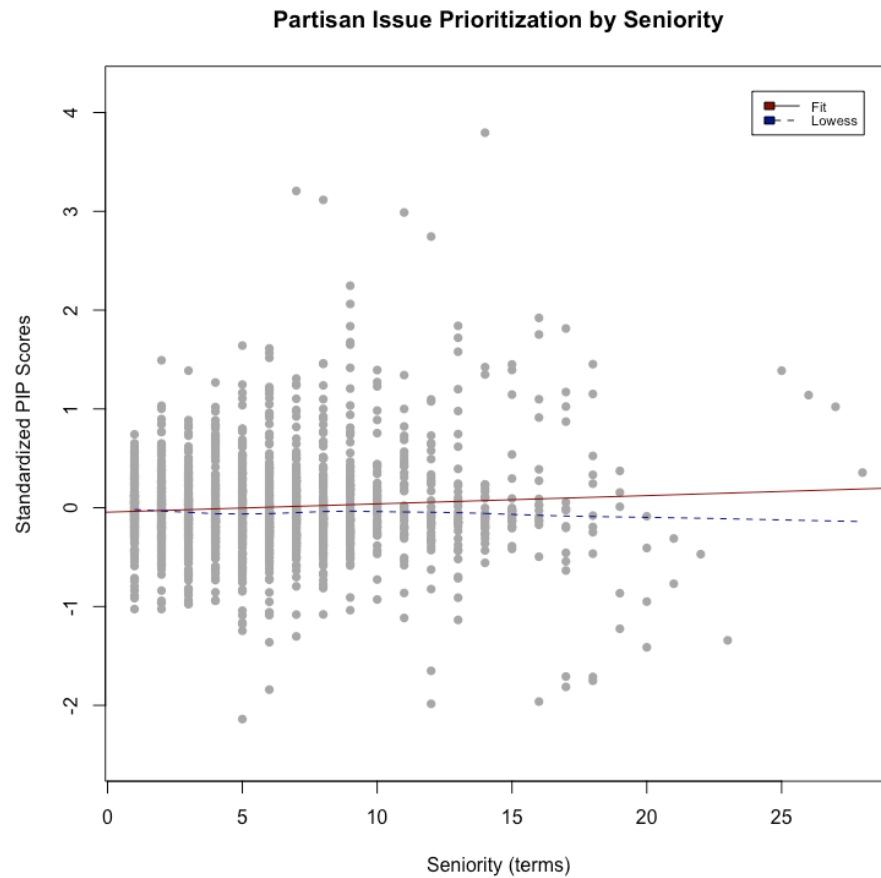


Figure 5: Distribution of PIP Scores Over Seniority

Given the distributions of PIP scores addressed above, I turn now to validate the PIP scores through a series of bivariate regressions with the standardized PIP scores regressed on an interaction between party and issue specific bill counts for each owned issue for each of the major political parties. The value of this validation approach is allowing the raw sponsorship activity to interact with partisanship to impact the partisan issue prioritization summary indicators to ensure that the PIP scores are picking up the partisan variance we should expect. Specifically, given the dichotomous party variable's

lower level corresponding with Republicans (0) and the upper level corresponding with Democrats (1), I expect a positive interactive effect and slope for the Democratic-owned issues and a negative effect for the Republican-owned issues, suggesting the PIP scores are accurately capturing prioritization of partisan owned issues by the respective partisan legislators. In line with construction of the PIP scores as well as the validation strategy, the slopes across all partisan owned issues in Figures 6, 7 and 8 are strongly supportive, with positive slopes for Democrats and negative slopes for Republicans, given the construction of the dichotomous party indicator (1=Democrat and 0=Republican).⁵²

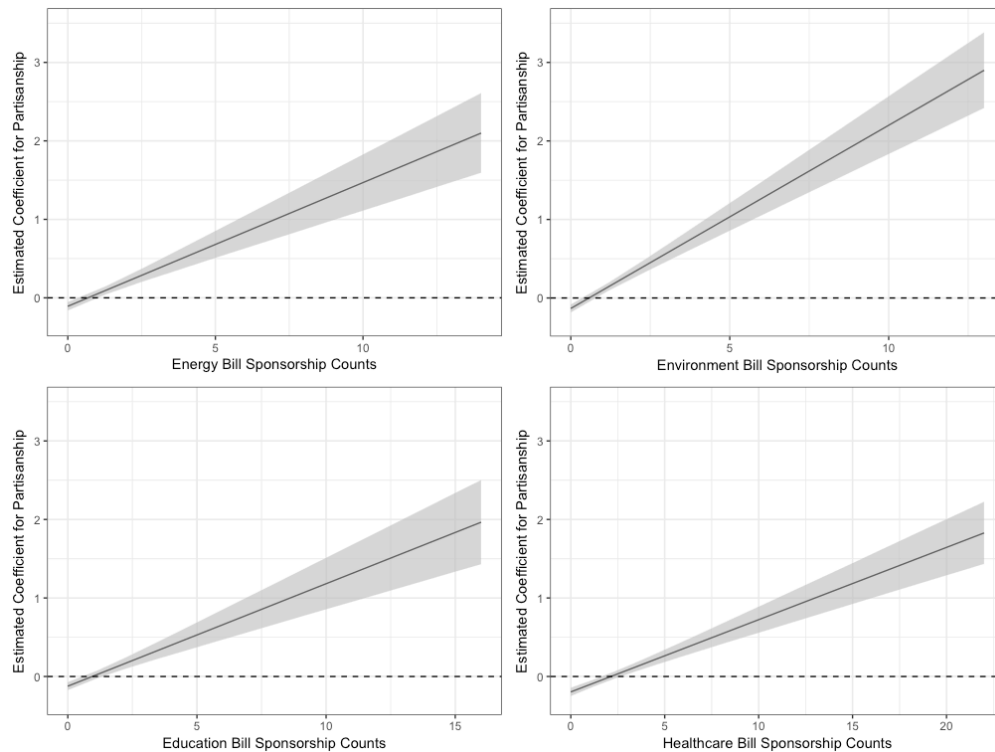


Figure 6: Effect of Party and Sponsorship on Partisan Issue Prioritization:

Democratic Issues

⁵² Issue codes for bill categories in Tables 6 and 7 are based on the major topics coding in the *Policy Agendas Project* coding scheme.

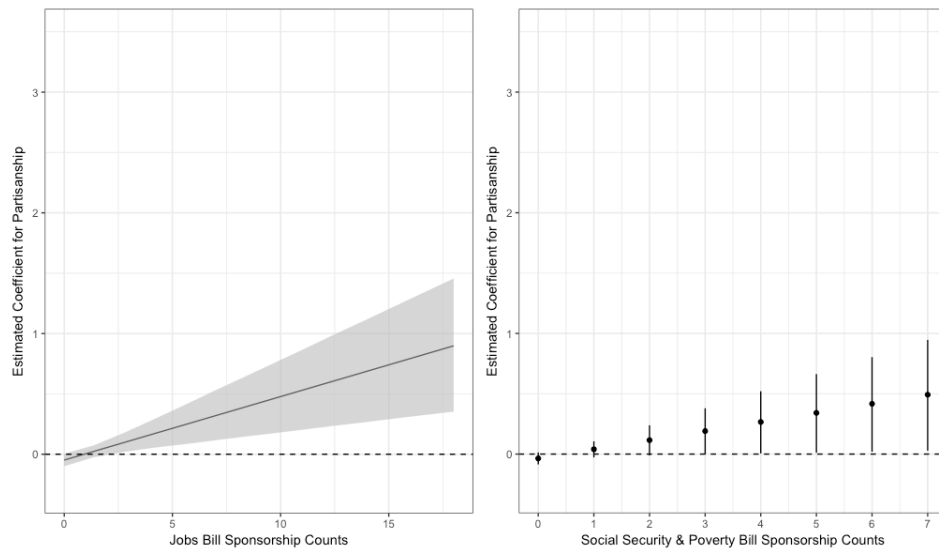
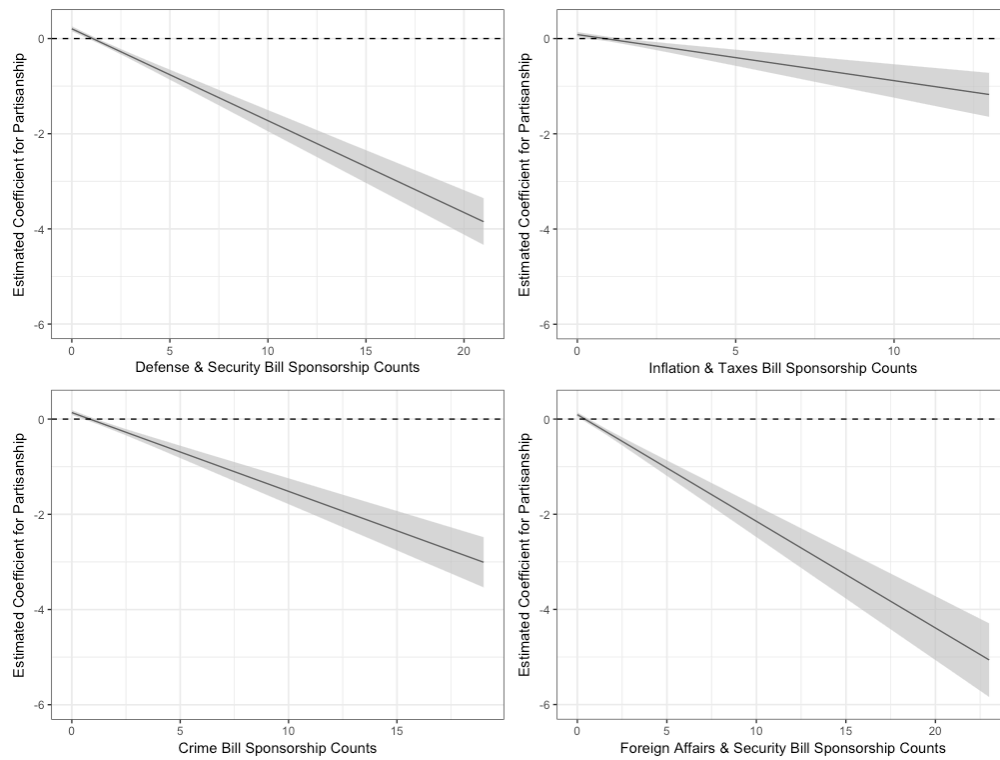


Figure 7: Additional Democratic Owned Issues for Validity Check



**Figure 8: Effect of Party and Sponsorship on Partisan Issue Prioritization:
Republican Issues**

Table 6: Interactions on Democratic Owned Issues – Validity Check

<i>Dependent variable: PIP Scores</i>						
Dem	-0.123*** (0.026)	-0.107*** (0.027)	-0.133*** (0.025)	-0.196*** (0.027)	-0.048* (0.026)	-0.035 (0.025)
Educ.	-0.003 (0.015)					
Dem x Educ.	0.130*** (0.017)					
Energy		-0.057*** (0.016)				
Dem x Energy		0.157*** (0.019)				
Environ.			-0.067*** (0.014)			
Dem x Environ.			0.233*** (0.019)			
Health				0.010 (0.008)		
Dem x Health				0.092*** (0.009)		
Labor					0.062*** (0.013)	
Dem x Labor					0.052*** (0.016)	
Welfare						0.108*** (0.027)
Dem x Welfare						0.074** (0.034)
Constant	0.002 (0.018)	0.036* (0.019)	0.036** (0.018)	-0.013 (0.019)	-0.042** (0.019)	-0.027 (0.018)
Observations	1,736	1,736	1,736	1,736	1,736	1,736
R ²	0.097	0.050	0.093	0.184	0.086	0.056
Adjusted R ²	0.096	0.048	0.091	0.182	0.084	0.054
Residual Std. Error (df = 1732)	0.473	0.486	0.474	0.450	0.476	0.484
F Statistic (df = 3; 1732)	62.183***	30.180***	58.919***	129.753***	54.158***	33.951***

Note:

*p<0.1; **p<0.05; ***p<0.01

Table 7: Interaction on Republican Owned Issues – Validity Check

	<i>Dependent variable: PIP Scores</i>			
Dem	0.206*** (0.026)	0.085*** (0.027)	0.137*** (0.025)	0.094*** (0.024)
Defense	0.171*** (0.010)			
Dem x Defense	-0.193*** (0.013)			
Econ./Taxes		0.093*** (0.011)		
Dem x Econ/Taxes		-0.097*** (0.019)		
Crime			0.177*** (0.011)	
Dem x Crime			-0.166*** (0.015)	
Foreign Aff.				0.152*** (0.011)
Dem x Foreign Aff.				-0.224*** (0.017)
Constant	-0.173*** (0.019)	-0.077*** (0.019)	-0.140*** (0.018)	-0.057*** (0.017)
Observations	1,736	1,736	1,736	1,736
R ²	0.159	0.038	0.127	0.108
Adjusted R ²	0.157	0.036	0.125	0.107
Residual Std. Error (df = 1732)	0.457	0.489	0.465	0.470
F Statistic (df = 3; 1732)	108.834***	22.819***	83.833***	70.105***
<i>Note:</i>		*p<0.1; **p<0.05; ***p<0.01		

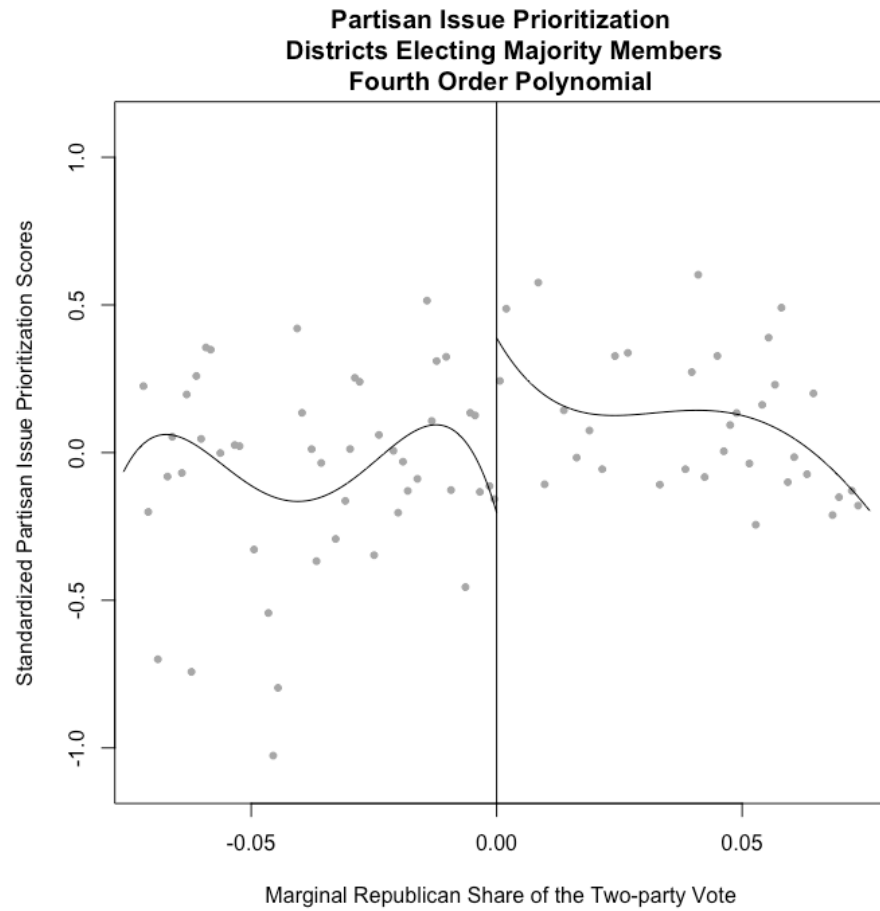


Figure 9: Running Variable as a Fourth-Order Polynomial

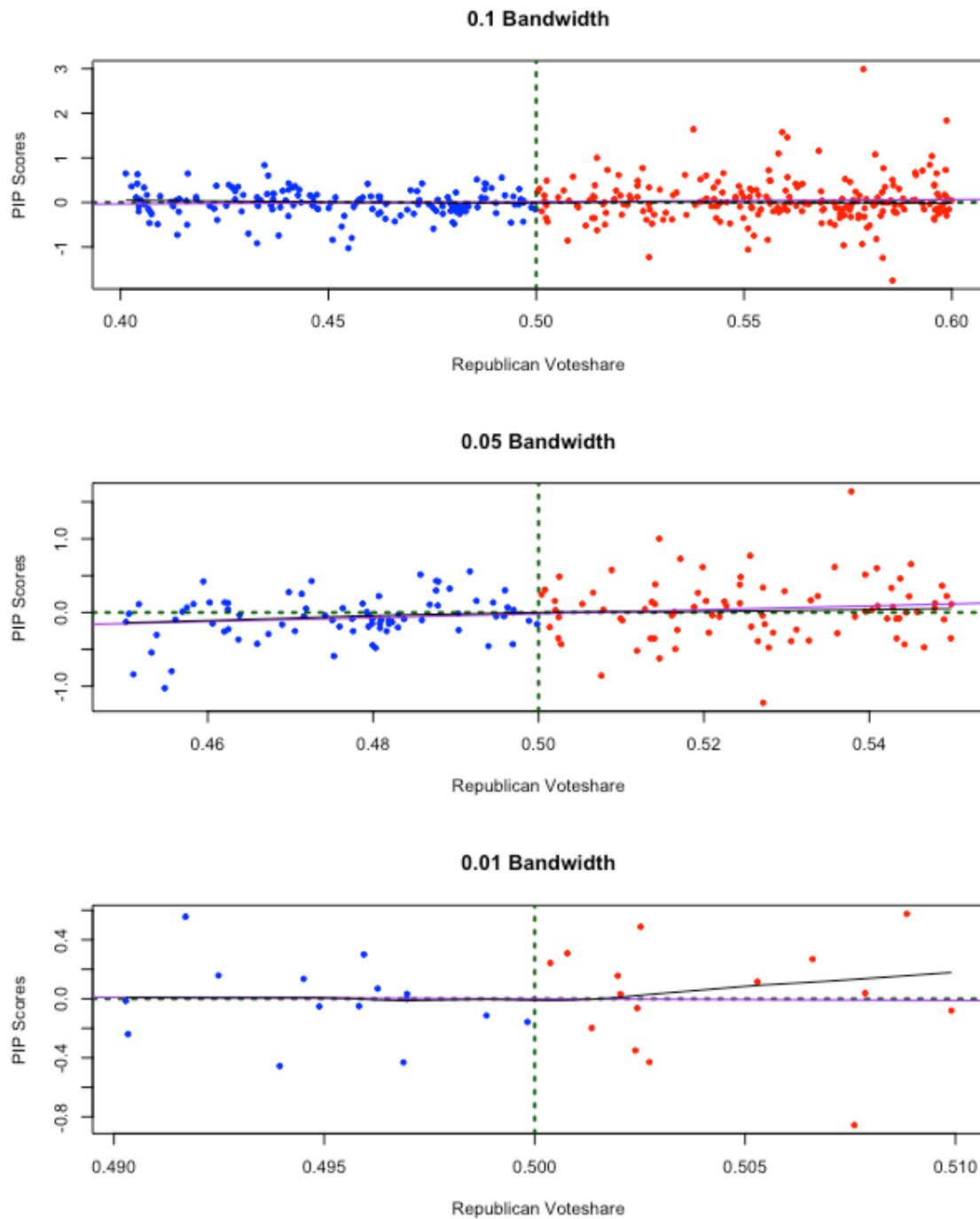


Figure 10: Descriptive plot showing lowess (black) and fit (purple) lines of general patterns of sponsorship for treatment (R) and control (D) conditions

The Effect of Party on Partisan Issue Trespassing (Full Sample)		
	Issue Trespassing (PIT Scores)	
	(1)	(2)
Effect of Party (τ_{RDD})	-0.069 (0.089)	-0.220* (0.091)
Covariates	N	Y
CI Lower Bound	-0.243	-0.389
CI Upper Bound	0.104	-0.042
N	1736	1721
$N_{Control}$	142	135
$N_{+}^{Treatment}$	200	192

Note: * $p < .05$. Cell entries are estimates from local first-order polynomial regressions fit to control and treatment groups for the full sample of legislators from the 108th to 111th Congress. Standard errors are included in parentheses.

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