Legislative Problem-Solving: Exploring Bill Sponsorship in Post-war America

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Abstract

Given the small number of bills that are actually enacted into public policy, it is puzzling that members continue to sponsor bills at such high rates. The conventional approach to this puzzle has been to either focus on the determinants of legislative effectiveness or to conceive of bill sponsorship as symbolic position-taking. As a result, we know relatively little about how sponsorship patterns vary across members and over time, and more importantly the introduction of legislation has been divorced from the policy process. I address both of these problems by offering a “problem-solving” framework of bill sponsorship that is compatible with standard conceptions of goal-oriented behavior and conceives of sponsorship as placing issues onto the public agenda. Using multilevel models I analyze the volume and content of members’ legislative portfolios from 1947 to 1998. I find that members adjust their sponsorship according to changing circumstances, whether those changes are in terms of their own institutional positions or broader developments in the social, political, and economic environments. Bill sponsorship is neither irrational nor devoid of policy relevance. It is a tool that members use to recognize problems and cultivate reputations as problem-solvers.
Bill sponsorship seems to be the irrational act of otherwise rational members of Congress. From 1947 to 1998 only 4.74% of the bills introduced in Congress became law. A segment of the Congressional literature has focused on explaining the variation in members’ effectiveness at shepherding bills through the various stages of the legislative process (Frantzich 1979; Moore and Thomas 1991; Anderson, Box-Steffensmeier and Sinclair-Chapman 2003; Krutz 2005). However, none of these studies go on to address the more fundamental question: why do ineffective legislators persist? Given that the overwhelming majority of bills are doomed to failure, why do members continue to sponsor them in such large numbers?

In order to gain leverage on these questions, bill sponsorship has been cordoned off from policymaking and agenda setting. Instead, scholars have conceptualized introducing legislation as position-taking (Mayhew 1974). In this sense, bill sponsorship allows representatives to craft reputations for themselves without the constraints imposed by roll-call votes (Schiller 1995). Given that there are less costly means of position-taking, such as cosponsoring bills or delivering speeches on the floor, there must be some particular benefits from bill sponsorship that distinguish it from position-taking more generally (Campbell 1982; Maltzman and Sigelman 1996). Previous research has shown that introducing legislation brings rewards in terms of PAC contributions (Box-Steffensmeier and Grant 1999), leadership positions within Congress (Herrick and Moore 1993; Wawro 2000), and protection against campaign challengers (Sulkin 2005). The problem is that these studies conceive of bill sponsorship as almost completely distinct from considerations of policymaking and agenda-setting. Based on this view, the ineffectiveness of legislators is irrelevant because members have no explicit policy interests.

I beg to differ. Election-centered accounts of bill sponsorship are based on Mayhew’s characterization of position-taking, which was never intended as a complete theoretical framework for the introduction of legislation. As such, it overlooks how non-electoral motivations might shape legislative decisions. Ambition-centered accounts tend to emphasize effectiveness and specialization to the exclusion of larger questions about how members construct their legislative portfolios. Most importantly, neither of these approaches connect the introduction of bills to agenda setting (a notable exception is Sulkin 2005). In this paper, I offer a “problem-solving” framework that is
compatible with standard conceptions of goal-oriented behavior, conceives of bill sponsorship as placing items onto the public agenda, and explains variation in terms of both the numbers and types of bills sponsored. In order to demonstrate the utility of this framework, I have constructed a data set comprising the bill sponsorship activity for every voting member of Congress from 1947 to 1998. Bill sponsorship is neither irrational nor devoid of policy relevance. It is a tool that members of Congress use to recognize the problems that require government resolution and to cultivate reputations as problem-solvers.

The paper proceeds in five sections. Section 1 elaborates on some of the gaps in our current understanding of bill sponsorship. Section 2 introduces the framework of “problem-solving legislators” to fill in some of these gaps and derive expectations for how bill sponsorship varies. Section 3 introduces our data on fifty-two years of sponsorship behavior, the measure of legislative diversity, and the multilevel modeling techniques we employ to analyze this data. Section 4 presents the results of our analysis of bill sponsorship in the post-war period. Section 5 concludes with a discussion of how the problem-solving framework adds to an understanding of representation, legislative behavior generally, and the connections between bill sponsorship and agenda setting.

1 The Problem of Legislation

Taken at face value, bill sponsorship seems to be an inefficient mechanism for individual members of Congress (MCs) to shape policy outcomes. Figure 1 presents the annual proportion of bills introduced that are enacted into law. Two points immediately stand out from this picture. First, the proportion of bills that became laws plummeted in the twenty-year period from 1951 to 1971. Second, even in the peak years of sponsorship success (1947-1951), only ten percent of bills received a presidential signature. Figure 1 highlights the central puzzle of bill sponsorship: Intuitively, we know that MCs’ legislative activity is crucial to the policy process, but the low probability of success suggests that policy benefits are not sufficient incentives for members to invest time and resources into sponsoring legislation (Wawro 2000). Congressional scholars have approached this puzzle from two angles: 1) research that seeks to explain how non-policy motivations impact individuals’ decisions to sponsor legislation; (Mayhew 1974; Herrick and Moore 1993; Schiller 1995, 2000; Sulkin
The first strand of research is based upon the fundamental assertion that MCs sponsor a mixture of policy initiatives and distributive projects to establish or expand their electoral coalitions (Mayhew 1974, 59-65). Unlike roll-call voting, bill sponsorship allows members to establish distinct reputations that are strategically aimed at particular constituencies (Schiller 1995, 2000, 2006). These reputations are then pro-actively employed to craft effective campaign messages (Sellers 1998), and they are used reactively to address the criticisms raised by electoral challengers (Sulkin 2005). Conversely, the second strand of research emphasizes the building of legislative rather than electoral coalitions. The central claim is that members who concentrate on being effective legislators introduce fewer bills, but they exert greater effort within Congress to establish support for – and ultimately passage of – their initiatives. As a reward for this effort, effective legislators advance to
leadership positions within the institution (Frantzich 1979; Herrick and Moore 1993; Wawro 2000), and their reelection campaigns are subsidized through higher PAC contributions (Box-Steffensmeier and Grant 1999).

Despite the insights into congressional behavior these studies provide, they have not solved the puzzle of bill sponsorship. The problem is that reputation-building suggests that sponsorship is entirely symbolic, rendering it an invalid measure of agenda setting (Cobb, Ross and Ross 1976; Baumgartner and Jones 1993; Jones and Baumgartner 2005), and focusing on legislative effectiveness restricts our understanding to a small minority of all legislation. Basically, our current understanding lacks a policy-relevant explanation for individual and temporal variation in bill sponsorship. Previous research has characterized individual decisions to introduce legislation in terms of electoral considerations (Mayhew 1974; Sulkin 2005), core identities such as race and gender (Canon 1999; Haynie 2001; Whitby 2002; Swers 2005; Baker and Cook 2005; Barnello and Bratton 2007), changes in national trends (Schiller 2006; Swers 2007), and specialization in issues related to committee assignments (Herrick and Moore 1993; Moore and Thomas 1991; Anderson, Box-Steffensmeier and Sinclair-Chapman 2003; Krutz 2005). Ideally a framework for bill sponsorship would provide a way to comprehend these disparate influences as part of some larger policy-relevant purpose. Thinking of bill introductions in terms of problem-solving provides such a purpose.

2 Legislative Problem-Solving

I argue that MCs sponsor legislation in order to cultivate reputations as problem-solvers. Problem-solvers are members who identify existing problems, define new problems, and then craft solutions to those problems. The benefit for members is that a problem-solving reputation addresses their standard goals of election, institutional advancement, and good public policy (Fenno 1978; Arnold 1990). Sulkin’s concept of issue uptake exemplifies the electoral benefits of problem-solving: when challengers criticize incumbents for failing to act on problems that are important to constituents, incumbents introduce legislation as a policy response. Electorally, problem-solving sends a message of responsiveness to constituents. Members who seek institutional power use problem-solving reputations to demonstrate their value as colleagues (Herrick and Moore 1993). Identifying problems helps
Congress perform its oversight duties (McCubbins and Schwartz 1984), makes Congress a relevant actor in domestic agenda setting (Taylor 1998), and shows congressional responsiveness to changes in national mood (Stimson, Mackuen and Erikson 1995; Peterson et al. 2003). Problem-solvers are compensated for this provision of public goods through institutional advancement (Wawro 2000). Lastly, problem-solving fits in naturally with those who are motivated by policy. This includes MCs who focus attention on enacting policies in a specific issue area as well as policy advocates who see value in the identification of a wide variety of problems, regardless of whether further legislative action is taken. Our problem-solving framework conceives of individual motivations for bill sponsorship as part of a coherent whole. Members want to build problem-solving reputations to address their multi-faceted goals.

The problem-solving framework relates sponsorship to policymaking by shifting focus to one of the core concepts of agenda setting – problem definition. Research on agenda setting argues that policy entrepreneurs strategically define/re-define issues to appeal to cross-cutting audiences. As a result of these broadened coalitions of interests, new participants enter the process and break apart established policy monopolies (Cobb and Elder 1972; Schattschneider 1975; Cobb, Ross and Ross 1976; Baumgartner and Jones 1993; Kingdon 1995; Baumgartner, Jones and MacLeod 2000; Sheingate 2006). I assert that problem-solving legislators use bill sponsorship to identify and define problems. In that sense, introducing legislation – even bills that never make it out of committee – serves the policy-relevant purpose of placing issues onto the public agenda. Bill sponsorship is not cheap talk, it is that first important step in congressional agenda setting. Legislative problem-solving offers a unified, policy-relevant purpose for sponsoring legislation. Therefore, in order to understand variation in bill sponsorship, we need to delve into the process MCs use to identify and define problems. Building on the ideas set forth by Wood and Doan (2003), I offer a simple model of problem identification.

2.1 Identifying Problems

At district, state, and national levels there are any number of social, political, and economic conditions that affect constituents. Problems are those conditions that have been deemed intolerable
by some segment of the population.\footnote{Wood and Doan (2003) present a cascade model of problem identification in which individuals’ decisions to not tolerate conditions aggregate until they reach certain thresholds. Once those thresholds of intolerance have been crossed, then conditions are publicly defined as “problems.” Wood and Doan’s model serves as the underlying idea behind the conception of problem identification used in this paper.} In order to establish problem-solving reputations, MCs introduce bills that address some of these intolerable conditions. By sponsoring legislation, MCs are identifying problems for the national, public agenda. However, when making these decisions about which problems to identify, MCs must pay integrity costs and political costs.

Integrity costs refer to conflict between a member’s personal preferences and public legislative activity.\footnote{“Personal preferences” refers to an MC’s core values that are devoid of political calculations.} For example, a member who is personally opposed to abortion might pay integrity costs to sponsor a constitutional amendment that guarantees the right to an abortion. Generally, we do not expect much within-member variation in integrity costs. Political costs are paid when a member’s legislative activity conflicts with the preferences of constituents, party leadership, a legislative majority, or the national electorate. Unlike integrity costs, there can be a great deal of within-member variation in political costs. Such transformation in costs can occur endogenously, such as parties staking out more clearly defined positions on an issue (Carmines and Stimson 1990; Wolbrecht 2000), or these political costs can be shaped by exogenous events such as protest activity or media coverage. Wood and Doan (2003) demonstrate how coverage of the Clarence Thomas hearings made sexual harassment an intolerable condition, and Lee (2002) shows the impact of civil rights activity on public opinion. As social, political, and economic contexts change, so too do the political costs associated with identifying problems.

Lastly, an MC’s decision to identify an intolerable condition as a problem is influenced by institutional resources. We know that institutional factors, such as committee assignments or leadership positions, impact legislative effectiveness (Anderson, Box-Steffensmeier and Sinclair-Chapman 2003; Krutz 2005). Members should identify problems when they have higher expectations of legislative success (ie. sponsoring bills within the jurisdiction of their committee assignments). From our discussion of the problem-solving framework of bill sponsorship there are four sources of variation in MCs’ decisions to introduce legislation: the goals that a problem-solving reputation are meant to achieve, the integrity costs for identifying problems through sponsorship, the
political costs for identifying problems through sponsorship, and institutional factors that shape
expectations of legislative effectiveness.

2.2 Variation in Bill Sponsorship

Studies of variation in sponsorship usually emphasize only some small segment of members’ legis-
lat ive portfolios. Work that examines patterns of members’ overall sponsorship deals with the
numbers of bills sponsored by members (Herrick and Moore 1993; Schiller 1995; Garand and Burke
2006). Alternatively, there are studies that concentrate on the number of bills introduced on spe-
cific types of policies (ie. issues of race or gender) (Canon 1999; Whitby 2002; Swers 2005; Baker
and Cook 2005; Swers 2007). Lastly, the research that is interested in the broader content of mem-
bers’ legislative portfolios is not geared toward the exploration of variation in the issue content of
members’ bill sponsorship (Schiller 2000; Sulkin 2005).

Contrasted with these studies, our legislative problem-solving framework conceives of bill spon-
sorship as part of the problem-definition stage of agenda setting, and this provides a way to un-
derstand differences across legislative portfolios in terms of both the number and types of bills
sponsored. From an agenda setting perspective, it is not enough to know simply how many prob-
lems a given MC identifies. We also need to know which problems are being identified, the ranges of
problems being identified, and how concentrated MCs’ legislative portfolios are on the identification
of certain problems rather than others. With that in mind, I am interested in three attributes of
legislative portfolios: activity, richness, and diversity. Activity is the number of bills sponsored;
richness is the number of policy topics bills are sponsored on – the breadth of sponsorship; and
diversity is the depth of sponsorship across different policy areas. Examining this fuller picture
of bill sponsorship allows us to understand the myriad strategies available for MCs to construct
problem-solving reputations, and, perhaps more importantly, draws greater connections between
individual problem-solving and broader changes in the congressional agenda.

Now we can speak more clearly about how patterns of bill sponsorship vary across individuals.
Recall that the problem-solving framework highlights four sources of variation across members:
motivations, integrity costs, political costs, and institutional resources. The standard motivations
of policy, institutional advancement, and election should yield distinct legislative portfolios. MCs who are motivated by good public policy will occupy the extremes of activity, richness, and diversity. On one hand will be those who focus on pushing well-crafted solutions to a small set of problems, and others will be advocates who identify a vast array of problems across several issue areas. Institutional advancers should be the most effective and efficient problem-solvers. Their practical emphasis on passing legislation will likely constrain them to sponsoring legislation within the jurisdiction of their committees. The empirical implications are that levels of activity should be largely determined by institutional resources, while levels of richness and diversity should depend more heavily on committee jurisdictions. Election seekers should be more constrained by political costs. These MCs should exhibit greater degrees of within-member variation as they react to changing national, district, and electoral circumstances.

While individuals’ motivations are at the core of their strategies of representation, perhaps the largest sources of variation across MCs’ legislative behavior are the integrity costs. Aspects of identity such as race, gender, party, and ideology provide the foundation for members’ core beliefs, and those beliefs impact an MC’s integrity costs regardless of political considerations. Specifically, Democrats and liberals should have higher levels of activity, richness, and diversity in accordance with their more expansive views of government. However, racial or gender identities could potentially result in a more narrow issue focus, leading to lower levels of richness and/or diversity. Ideological extremists will have sufficiently high integrity costs to outweigh most political costs. As a result, they should exhibit lower within-member variance across time.

In contrast to integrity costs, political costs are the driving force behind temporal variation. Individuals with marginal seats should have higher levels of activity because the political costs of problem identification are low relative to the benefits of expanding the electoral coalition (Mayhew 1974; Sulkin 2005). Similarly, district composition should play a role in the types of legislation that MCs sponsor. Heterogenous districts should be associated with lower political costs across a broader set of issues, so there will be higher levels of activity, richness, and diversity (Highton and Rocca 2005). Again, the idea is that expansion of the electoral coalition requires a reputation for solving a wider array of problems. In that sense, it is much more politically beneficial to sponsor
legislation on a variety of issues. Finally, I posit that political costs can vary over time as the result of both endogenous and exogenous events. Since it is difficult to obtain consistent measures of party positions, constituent preferences, or public opinion across time, actual macro-contextual factors can be used as proxies. Adopting a problem-solving framework allows us to explore how economic climates, social unrest, wars, or other important events alter MCs’ strategies of representation.

Institutional factors are alternative sources of temporal variation within the careers of MCs. Previous studies make it clear that seniority, committee leadership, majority status, and institutional resources (such as staff) shape the levels of activity (Frantzich 1979; Schiller 1995; Krutz 2005; Garand and Burke 2006). As members gain these resources throughout their careers, levels of activity should fluctuate accordingly. In addition, the jurisdictions of committees should influence the richness and diversity of legislative portfolios. MCs who serve on committees with broader jurisdictions have greater flexibility in the types of policies they can address without sacrificing the benefits from specialization. Given the variety of ways that bill sponsorship can differ between members – and even within members over time – it would seem that the problem-solving framework has made research more complicated. I take the position that the puzzle of bill introductions has always been complex. Legislative problem-solving is a tool that matches the complexity of our subject matter.

3 The Data

I explore this complexity by analyzing bill sponsorship data for every voting member of Congress from 1947 to 1998. The basic data is taken from the Congressional Bills Project, which classifies each bill introduced during this period according to nineteen major topic categories (Adler and Wilkerson 2007). This database was then cross-referenced with the Congressional Biographical Directory to include observations for members who do not sponsor any legislation. As a result, I can measure activity, richness, and diversity at the member-year level.

3 Delegates and members who did not cast enough roll call votes for the estimation of ideal points are excluded from the sample.

4 The categories are: macroeconomics, civil rights, health, agriculture, labor, education, environment, energy, transportation, law, welfare, housing, banking, defense, science and technology, foreign trade, international affairs, government operations, and public lands and water management.
Recall that activity is the total number of bills an MC introduces in a year, and richness is the number of topic categories (out of nineteen possible categories) in which an MC introduces at least one piece of legislation in a given year. Activity is the overall depth of a legislative portfolio; richness is the breadth of that portfolio; but diversity is intended as a measure of both the breadth and depth of a portfolio. Diversity is measured using Simpson’s Reciprocal Index:

\[
D = \frac{1}{\sum \left( \frac{n_i}{N} \right)^2}
\]  

In this formula, \( n_i \) is the number of bills introduced in a given topic (ie. defense, lands, etc.) and \( N \) is the total number of bills introduced by that MC in a given year. Higher values mean that there is more diversity in terms of the types of bills a legislator introduces. The highest possible value is the number of different bill types – 19 in this case – and the minimum value is 1, meaning that there is only one type of bill being introduced. Those who do not introduce any bills in a given year are assigned diversity scores of zero. Figure 2 shows the relationships between diversity, activity, and richness. Figure 2(a) shows that activity and diversity are related yet distinct constructs.
As illustrated by Figure 2(b) richness serves as the upper-bound for diversity scores, with wide variation in the diversity of those who sponsor at given levels of richness. However, in this paper, diversity will not be used as a dependent variable. Instead, it serves as a measure of the jurisdiction of legislative committees.

Four sources of variation emerged from our discussion of legislative problem-solving: motivations, integrity costs, political costs, and institutional resources. There are no direct measures of MCs’ motivations for sponsoring legislation, so that source of variation will not be included in the analysis of activity and richness. Thankfully, I am able to operationalize the integrity costs of problem identification. Recall that these costs are tied to MCs’ core identities. Party (labeled “Democrat”) is measured by coding Democrats as one and everything else as zero. Race (labeled “Black Reps”) is measured by coding black MCs as one and everything else as zero. Gender (labeled “Female”) is measured by coding women as one and men as zero. This biographical information is included in the Congressional Bills Project data. Ideology is measured using both dimensions of the common space scores calculated by Poole (1998) (the first and second dimensions are labeled “Ideology 1” and “Ideology 2” respectively), and the absolute distance between an MC’s common space score and the party and chamber medians’ scores are used as measures of extremism (labeled “Party Extremism” and “Chamber Extremism” respectively). Party, race, gender, and ideology form the core of an MC’s identity, so the differences in integrity costs across members should be captured by these seven variables.

I measure political costs in a few ways. The marginality of seats (labeled “Electoral Margin”) is measured as the margin of victory in the last election an MC faced. That data was taken from Swift et al. (2000) and supplemented using the election statistics provided by the Office of the Clerk of the House of Representatives.\(^5\) Using data from Adler (2003) I include the percent of a district’s population that is black (labeled “Percent Black”). In order to capture the public’s preferences, I include the proportion of the public that identifies as liberal (labeled “Liberalism”). That data is drawn from Ellis and Stimson (2007). Additionally, the change in the Consumer Price Index is used as a measure for inflation (labeled “Inflation”), and the percent change in real GDP is our

\(^5\)Members who were appointed or elected in off-term special elections are assigned victory margins of zero.
measure of economic growth (labeled “Economic Growth”).\textsuperscript{6} These two variables are intended to capture how economic conditions impact the political costs associated with introducing legislation.

Lastly, I include variables to capture the impact of institutional resources/constraints. I include dummies for being in the Majority (labeled “Majority”), serving in the Senate (labeled “Senate”), freshmen (labeled “Freshman”), committee chairs (labeled “Committee Chair”), and whether it is the first session of Congress (more bills are introduced in the first as opposed to second session of a Congress). Seniority (labeled “Seniority”) is measured as a percentile – the proportion of MCs in a chamber whose years of service are less than or equal to a given member. Committee jurisdictions (labeled “Comm. Jurisdiction”) are measured as the diversity of bills that are assigned to a committee in a given year. Using the bill assignments data from the Congressional Bills Project, a diversity score is calculated for each committee in the same manner as was described for MCs’ diversity. Members who serve on multiple committees in a given year are assigned the highest of the committees’ diversity scores.\textsuperscript{7}

Although I include a number of variables to capture the importance of macro-context and institutional constraints on individuals’ bill sponsorship, it is impractical to specify all the potential factors that comprise an MCs’ decision-making environment. In order to both compensate for potential oversights and to take advantage of the grouped nature of the data, I use multilevel models to analyze richness and activity. More specifically, I allow intercepts along with the coefficients for party, race, gender, racial composition of the district, seniority, and committee chairs to vary by year.\textsuperscript{8} As a first cut at the data, I thought that these variables could display interesting patterns over time. For example, the racial composition of districts should have a much different meaning after the enfranchisement of black southerners. In this paper I focus our analysis on activity and richness. Activity is the yearly count of bills an MC introduces, so I estimate a poisson model.\textsuperscript{9}

\textsuperscript{6}The inflation data comes from the Bureau of Labor Statistics, and the GDP data is provided by the Bureau of Economic Analysis.

\textsuperscript{7}Committee assignments are taken from Stewart and Woon (2005) and Nelson (2005). Those committees are: agriculture, appropriations, armed services, banking, budget, commerce, District of Columbia, foreign affairs, government operations, interior, judiciary, public works, space/science, post office, veterans, small business, and rules committees in the House and Senate. The Senate also includes finance and labor. The House also includes ways and means, merchant marines, standards, and un-American activities.

\textsuperscript{8}The yearly intercept and the coefficients that vary by year are modeled as functions of the yearly variables (First Session, Liberalism, Inflation, Economic Growth).

\textsuperscript{9}I include a gamma-distributed error term in the model to account for standard concerns about the poisson's
Richness is a bounded count from zero to nineteen, so I estimate a binomial model. The results of this analysis are presented in the next section.

4 Analyzing Bill Sponsorship

Tables 1-3 present the results from our multilevel estimations of activity and richness. For ease of presentation the coefficients are presented in separate tables grouped by theoretical concepts. These results are not the product of separate models, rather a full model including all the variables (integrity costs, institutional factors, and political costs) was estimated for each of the dependent variables.

<table>
<thead>
<tr>
<th></th>
<th>Activity</th>
<th>Richness</th>
</tr>
</thead>
<tbody>
<tr>
<td>Democrat</td>
<td>-1.031</td>
<td>-0.607</td>
</tr>
<tr>
<td></td>
<td>(-1.373/-0.744)</td>
<td>(-0.859/-0.395)</td>
</tr>
<tr>
<td>Black Reps</td>
<td>-1.879</td>
<td>-1.484</td>
</tr>
<tr>
<td></td>
<td>(-2.352/-1.439)</td>
<td>(-1.759/-1.239)</td>
</tr>
<tr>
<td>Female</td>
<td>-0.064</td>
<td>-0.057</td>
</tr>
<tr>
<td></td>
<td>(-0.377/0.051)</td>
<td>(-0.221/0.070)</td>
</tr>
<tr>
<td>Ideology 1</td>
<td>-0.821</td>
<td>-0.476</td>
</tr>
<tr>
<td></td>
<td>(-1.027/-0.672)</td>
<td>(-0.557/-0.410)</td>
</tr>
<tr>
<td>Ideology 2</td>
<td>-0.420</td>
<td>-0.279</td>
</tr>
<tr>
<td></td>
<td>(-0.524/-0.338)</td>
<td>(-0.320/-0.236)</td>
</tr>
<tr>
<td>Party Extremism</td>
<td>0.081</td>
<td>0.062</td>
</tr>
<tr>
<td></td>
<td>(0.031/0.137)</td>
<td>(0.041/0.086)</td>
</tr>
<tr>
<td>Chamber Extremism</td>
<td>0.017</td>
<td>0.010</td>
</tr>
<tr>
<td></td>
<td>(-0.043/0.070)</td>
<td>(-0.014/0.032)</td>
</tr>
</tbody>
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Table 1: Integrity Costs of Problem Identification: The cell entries are the expected differences in activity and richness when continuous variables increase one standard deviation above the mean and dichotomous variables move from zero to one. Bold entries indicate statistical significance and the 95% interval is in parentheses.

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10 These models were estimated using statistical packages in R (R Development Core Team 2007).
4.1 The Role of Integrity Costs in Creating a Problem-Solving Reputation

Table 1 presents the results for how integrity costs shape MCs’ choices of how to construct their legislative portfolios. A few points warrant immediate discussion. First, Democrats sponsor fewer bills and those bills identify a more narrow range of problems than Republicans. Given our expectations, this finding is somewhat counterintuitive at first glance. Democrats are the party that traditionally adopts a more expansive view of government, so the presumption is that they would have a more expansive view about the types of problems that require some sort of government resolution. Indeed, that presumption is valid, but it has nothing to do with being a Democrat per se.

The ideological commitments that are commonly adopted by Democrats are what captures our standard notions of liberal Democrats. We see in Table 1 that both dimensions of ideology are negatively related to activity and richness, so MCs sponsor more bills in a larger variety of policy areas as they become more liberal. The relationships between ideology, activity and richness are presented in Figure 3. A perfect liberal (a score of -1) on the first dimension introduces three more bills compared to a perfect moderate (a score of 0), and six more bills than a perfect conservative (a score of 1). The impact of ideology on richness is slightly more moderate. Liberals at the extreme of the ideological spectrum identify problems in three more policy areas than their most conservative counterparts. Similar patterns are observed along the second ideological dimension, but the disparities are less stark. Taking the findings on MCs’ party identification together with the results for ideology seen in Figure 3 shows that party – regardless of majority status – matters for setting the public agenda. In particular, liberal Republicans should be the most active in identifying new problems.

Figure 4 shows the party gap in activity and richness over time. Interestingly, the party gap for richness (as seen in Figure 4(b)) is greatest in 1965, 1967, 1975, and 1977. In both 1965 and 1975 we see an influx of liberal Democrats on the coattails of Johnson and in response to Watergate respectively. Perhaps, the Democratic agenda was more focused in these years to take advantage of the larger majorities, which would also be in line with notions of conditional party government (Rohde 1991). Similarly, regaining unified control of the legislative and executive branches may
Figure 3: The Impact of Ideology on Legislative Portfolio Choices: These plots show the inverse relationship ideology has with Activity and Richness

(a) Activity

(b) Richness
have yielded more focused Democrats in 1977. Conversely, there does not appear to be any larger substantive story behind the patterns in Figure 4(a). The increase in the partisan sponsorship gap from the late 1960s through the 1970s seems to correspond to structural changes in the rules governing cosponsorship.\footnote{Thomas and Grofman (1993) show that there was a surge in bill sponsorship to circumvent the House rules limiting the number of cosponsors to twenty-five. MCs would introduce duplicate bills with a different set of cosponsors.}

Figure 4: The Impact of Party Over Time: These plots show the first differences in Activity and Richness for Democrats and non-Democrats when the coefficient for “Democrat” is allowed to vary over time.

Table 1 shows that the racial gaps in activity and richness are even more pronounced than those we observed for Democrats. On average, black MCs introduce two fewer bills and introduce bills in one less policy area than non-black MCs. Previous work examining racial differences in sponsorship has concentrated only on black interest legislation (Canon 1999; Baker and Cook 2005), so there were not any clear expectations about how legislative portfolios might vary by the race of the member. Figure 5 shows the difference between black and non-black MCs’ bill sponsorship from 1947 to 1998. We see in Figure 5(a) that the race gap in activity is significant every year except 1951. As was the case with the party gap, the time trend for the race gap seems to follow changes in
House rules, rather than some larger substantive explanation. However, there are some potentially interesting patterns for richness. Figure 5(b) shows that the race gap in richness widened between 1969 and 1975. Interestingly, 1969 marks the arrival of four new black MCs in the House (Shirley Chisholm, William Clay, George Collins, and Louis Stokes), who go on to found the Congressional Black Caucus (CBC) in 1971. It seems that there was something qualitatively different about this CBC cohort. Conversely, the surges in CBC membership in the 98th and 103rd Congress led to a lessening in the richness disparity for black MCs. Perhaps the founding CBC cohort envisioned a distinct role for themselves as black representatives, but – in line with the work of Canon (1999) – successive generations of black MCs saw themselves as fitting more in line with less exceptional notions of representation.

Unlike we observed for Democrats and black MCs, Table 1 does not present any significant gender differences in bill sponsorship. That lack of substantial difference is underlined by Figure 6. In Figure 6(a) women in Congress begin to consistently introduce between one and three more
bills than their male counterparts in 1965. However, that boost only occurs in the first session of Congress. Given the conditional nature of the gender gap, it is not surprising that we see no independent effects for gender in Table 1. It is not until 1975 that female MCs begin to identify problems in one more policy area than their male counterparts. Previous studies of gender differences in bill sponsorship have shown that women are more active on what are typically thought of as “women’s issues” (Swers 2005), but they also balance out that image with greater attention to “masculine” issues such as defense (Swers 2007). There are no districts designed to specifically elect women in the same way as majority-minority districts do for black and latino MCs. Female MCs must identify the sorts of standard problems that their constituents care about, but their low integrity costs also allow them to identify problems that women are generally associated with. As a result, women’s legislative portfolios identify more problems and those problems cover a wider array of policies.

This discussion of integrity costs and MCs’ legislative portfolios has raised a number of inter-
esting points and emphasizes the value of a problem-solving framework. The liberal ideological commitments that are generally associated with Democrats leads to greater numbers and types of problems being identified. Given what we know about the inverse relationship between the number of bills introduced and legislative effectiveness (Frantzich 1979; Anderson, Box-Steppensmeier and Sinclair-Chapman 2003), it seems that liberals seek to create problem-solving reputations based more on policy advocacy rather than policy achievements. Additionally, shifts in the partisan gap over time – particularly the widening disparities in 1965 and 1977 – suggest that moments of unified Democratic control could have the counterintuitive result of limiting the public agenda.

The distinctions between the impacts of race and gender on legislative portfolios highlights the interplay between integrity and political costs. Black MCs’ integrity costs are aligned with their political costs in that their personal preferences about identifying black problems corresponds to their constituents’ interests. Thus, black MCs can craft problem-solving reputations by identifying fewer problems in a narrower range of subjects. For the most part, women’s integrity costs are not entirely aligned with the political costs, so their interest in identifying women-related problems must be supplemented by identifying problems more broadly. The higher levels of activity and richness we observe for women perhaps serves as evidence. Figure 6’s depiction of the conditional gender gap draws attention to the importance of institutional factors in MCs’ legislative portfolio choices. I now turn to a discussion of those results.

### 4.2 The Institutional Role in Creating a Problem-Solving Reputation

Table 2 presents the results for institutional factors. Due to advances in the legislative effectiveness literature (e.g Frantzich 1979; Moore and Thomas 1991; Anderson, Box-Steppensmeier and Sinclair-Chapman 2003; Krutz 2005), we approach these results with a much stronger set of expectations, and those expectations are largely met. Although the standard practice is to analyze the House and Senate separately, it accords with our intuition that senators identify one less problem and in one less policy area than members of the House. More specifically, senators have a more open amendment process that allows them to place items onto the formal agenda without sponsoring bills. Equally unsurprising, freshman MCs sponsor one less bill and sponsor in one less category.
than their more senior colleagues. Corroborating the arguments in Garand and Burke (2006), MCs identify more problems in a wider array of policy areas when they are in the majority. The idea is that majority status conveys higher expectations of legislative success, so rational MCs should take advantage of their new resources. Similarly, Woon (2008) finds that MCs sponsor bills closer to the median, thus increasing the likelihood of passage, when they have greater power advantages.

Contrary to our expectations, committee jurisdictions – although statistically significant – do not have any meaningful substantive impact on legislative portfolios. Figure 7 shows that even if a committee moved from a jurisdiction of one (the minimum) to a jurisdiction of 19 (the maximum), then members of that committee would only introduce one additional bill and in one additional policy category. Basically, we do not have strong evidence that the policy jurisdictions of committees

<table>
<thead>
<tr>
<th></th>
<th>Activity</th>
<th>Richness</th>
</tr>
</thead>
<tbody>
<tr>
<td>Senate</td>
<td>-1.070</td>
<td>-0.607</td>
</tr>
<tr>
<td></td>
<td>(-1.368/-0.815)</td>
<td>(-0.859/-0.395)</td>
</tr>
<tr>
<td>Freshman</td>
<td>-1.487</td>
<td>-0.989</td>
</tr>
<tr>
<td></td>
<td>(-1.798/-1.239)</td>
<td>(-1.128/-0.854)</td>
</tr>
<tr>
<td>Committee Chair</td>
<td>5.344</td>
<td>1.618</td>
</tr>
<tr>
<td></td>
<td>(4.575/6.209)</td>
<td>(1.441/1.822)</td>
</tr>
<tr>
<td>Majority</td>
<td>1.103</td>
<td>0.560</td>
</tr>
<tr>
<td></td>
<td>(0.890/1.358)</td>
<td>(0.437/0.699)</td>
</tr>
<tr>
<td>Seniority</td>
<td>-0.329</td>
<td>-0.265</td>
</tr>
<tr>
<td></td>
<td>(-0.479/-0.201)</td>
<td>(-0.366/-0.155)</td>
</tr>
<tr>
<td>Comm. Jurisdiction</td>
<td>0.103</td>
<td>0.158</td>
</tr>
<tr>
<td></td>
<td>(0.050/0.162)</td>
<td>(0.131/0.186)</td>
</tr>
<tr>
<td>First Session</td>
<td>2.958</td>
<td>2.007</td>
</tr>
<tr>
<td></td>
<td>(1.181/4.816)</td>
<td>(1.009/2.908)</td>
</tr>
</tbody>
</table>

Table 2: Institutional Factors and Problem Identification: The cell entries are the expected differences in activity and richness when continuous variables increase one standard deviation above the mean and dichotomous variables move from zero to one. Bold entries indicate statistical significance and the 95% interval is in parentheses.
exert influence on how MCs construct their overall legislative portfolios.\footnote{This is not to say that committees have no impact on bill sponsorship. It is well-established by the literature that MCs tend to sponsor bills that relate to their committee assignments. I am merely stating that this regularity does not provide insight into the broader construction of legislative portfolios.}

Figure 7: The Impact of Committee Jurisdiction on Activity and Richness: These plots show that increasing “Comm. Jurisdiction” from its minimum to its maximum value has little impact on either Activity or Richness.

\begin{figure}[h]
\centering
\begin{subfigure}{0.45\textwidth}
\centering
\includegraphics[width=\textwidth]{activity_plot}
\caption{Activity}
\end{subfigure}\hfill
\begin{subfigure}{0.45\textwidth}
\centering
\includegraphics[width=\textwidth]{richness_plot}
\caption{Richness}
\end{subfigure}
\end{figure}

The results for committee chairs presented in Table 2 are fairly straightforward and in line with our expectations. On average, the chair of a committee introduces five more bills in almost two more policy areas than non-committee chairs. However, the story becomes more complicated when we examine how the benefits of committee chairmanships have changed over time. Figure 8 shows the shifting value of committee chairs from 1947 to 1998. Starting first with Figure 8(a), it seems that the sponsorship advantages enjoyed by committee chairs steadily declined until roughly 1980. At its peak value in 1949, committee chairs sponsored eight more bills than the rank and file MCs. After 1980, the trend seems to have stabilized to a chairmanship bonus of five additional bills. The story changes when we examine richness in Figure 8(b). Committee chairs were, on average, identifying problems in two more policy areas than their colleagues until 1965, when the effect
becomes negative and insignificant. This trough in committee chairs’ richness advantage bottoms out – perhaps not coincidentally – in 1975, but it is not until 1984 when committee chairs regain their advantage by sponsoring bills in one more policy area than non-chairs. The basic point is that the value of committee chairmanships as a resource for agenda setting has declined in terms of both the numbers and types of problems identified.

Yet, paradoxically, the value of seniority has risen. Table 2 suggests that seniority within the chamber mildly depresses activity and richness. However, those results do not capture the important nuances of how seniority shapes MCs’ legislative portfolios. Figure 9 shows how the effect of seniority has changed over time. In the plots for both activity and richness, the same pattern emerges. Looking at the effect on activity in Figure 9(a) seniority is largely irrelevant until 1973. After that time, a one standard deviation increase over the mean leads to between one and three additional problems being identified during the first session of Congress. Figure 9(b) tells a virtually identical story, except the impact of seniority was not fully realized until 1975, after which
more senior MCs identified problems in one additional policy area. Keep in mind that 1975 was also a year of importance in the results for party, gender, and committee chairs. Although it is possible that these findings are merely coincidental, there is more likely something systematically important about the 94th Congress that is not otherwise accounted for in the data. One possibility is that the high turnover in the aftermath of Watergate somehow changed the dynamics of sponsorship, but further research is needed to fully understand this recurring finding.

Figure 9: The Impact of Seniority Over Time: These plots show the first differences in Activity and Richness, given a one standard deviation increase over the mean, when the coefficient for “Seniority” is allowed to vary over time.

(a) Activity

(b) Richness

Less puzzling, though equally interesting, is the conditional nature of seniority. Figure 10 shows how the benefits of seniority are restricted to the first session of Congress. Indeed, senior MCs actually identify fewer problems in a narrower range during the second session of Congress. Perhaps a benefit of seniority is receiving a higher priority for consideration of legislation. As a result, senior MCs front-load their sponsorship activity to take full advantage of these benefits. This discussion of institutional resources has served primarily to confirm previous research and our intuitions. When MCs are endowed with greater levels of institutional resources in terms of
seniority, majority status, and committee chairmanships, they seize the opportunity by taking a more active and comprehensive approach to problem identification. As a result, they are able to strengthen their reputations as problem-solvers.

Figure 10: The Interactive Effect of Seniority on Legislative Portfolios: These plots show the expected levels of Activity and Richness, given a one standard deviation increase over the mean for seniority, in the first and second sessions of a Congress.

(a) Activity

(b) Richness

4.3 Political Costs and Problem-Solving Legislators

The last elements that shape how MCs vary in their efforts to create problem-solving reputations are the political costs they face. Table 3 presents the results for how political costs impact individuals’ legislative portfolios. What is most immediately striking about Table 3 is the first appearance of substantial differences between the results for activity and richness. Macro-contextual factors of public liberalism, inflation, and economic growth have no impact on the number of problems that MCs identify. However, a more liberal political climate and inflation both result in a more narrow range of problems being identified. A potential implication of these results is that the size of the public agenda is somewhat invariant to exogenous shocks, but the content of the agenda is
Table 3: Political Costs and Legislative Portfolio Choices: The cell entries are the expected differences in activity and richness when continuous variables increase one standard deviation above the mean and dichotomous variables move from zero to one. Percent black shows the expected difference given a change from a 10% black district to a 51% black district. Bold entries indicate statistical significance and the 95% interval is in parentheses.

<table>
<thead>
<tr>
<th></th>
<th>Activity</th>
<th>Richness</th>
</tr>
</thead>
<tbody>
<tr>
<td>Percent Black</td>
<td>-0.675</td>
<td>-0.137</td>
</tr>
<tr>
<td></td>
<td>(-0.979/-0.437)</td>
<td>(-0.177/-0.103)</td>
</tr>
<tr>
<td>Electoral Margin</td>
<td>0.173</td>
<td>0.082</td>
</tr>
<tr>
<td></td>
<td>(0.110/0.242)</td>
<td>(0.057/0.108)</td>
</tr>
<tr>
<td>Liberalism</td>
<td>0.400</td>
<td>-1.281</td>
</tr>
<tr>
<td></td>
<td>(-0.629/1.416)</td>
<td>(-1.803/-0.461)</td>
</tr>
<tr>
<td>Inflation</td>
<td>-0.464</td>
<td>-1.156</td>
</tr>
<tr>
<td></td>
<td>(-1.350/0.471)</td>
<td>(-1.834/-0.540)</td>
</tr>
<tr>
<td>Economic Growth</td>
<td>-0.164</td>
<td>-0.055</td>
</tr>
<tr>
<td></td>
<td>(-0.850/0.652)</td>
<td>(-0.560/0.370)</td>
</tr>
</tbody>
</table>

responsive to broader contextual forces.

Figure 11 shows the relationship that richness has with public liberalism and inflation respectively. Both variables work to constrain the types of problems that MCs identify. Turning our attention first to Figure 11(b), it seems that economic difficulties lower the types of problems that MCs identify. One possible explanation, is that rising inflation increases the salience of macroeconomic policies to voters. In that kind of environment, MCs who want to be viewed as problem solvers should concentrate on identifying problems related to the economy rather than sponsoring bills in a wide array of areas. It is not obvious that a similar story can be told for the effect of public liberalism depicted in Figure 11(a). While liberal MCs are characterized by identifying a larger variety of problems, MCs restrict their focus when the public at large becomes more liberal. If surges in public liberalism are driven by the desire to have greater governmental intervention in specific policy areas, then our tentative explanation for inflation can be applied to liberalism as well. Alternatively, it could be that declines in liberalism lead to an expanding scope of problem
identification as MCs seek to roll back policies associated with more liberal periods.

Figure 11: The Impact of Liberalism and Inflation on Richness: These plots show the expected values of Richness as “Inflation” and “Liberalism” move from their minimum to their maximum values in the sample.

(a) Public Liberalism and Richness

(b) Inflation and Richness

This puzzle is further complicated when we view the moderating effect of public liberalism on the party and race gaps. Figure 12 shows that disparities between Democrats/non-Democrats and black/non-black MCs decline as the public becomes more liberal. Even more interesting, the closing of the party and race gaps is driven – at least in part – by the boost that liberalism provides to the sponsorship of Democrats and black MCs rather than simply dragging down richness to lower levels. In that sense, these findings fit in with ideas about political opportunities (Kingdon 1995). Namely, that Democrats and black MCs, who would be more inclined to press liberal policies, take advantage of liberalizing public sentiment to place their issues of interest onto the public agenda and enhance their own reputations as problem-solvers. The key point to take away from this discussion of both inflation and public liberalism is that the broader political, social, and economic environment can change what is required for MCs to portray themselves as problem-solvers, and as a result of these changing requirements, we see issues move on and off the public agenda.
Figure 12: The Moderating Effects of Liberalism: These plots show the first differences in Richness for Democrats/non-Democrats and Black/non-Black representatives as “Liberalism” moves from its minimum to its maximum value in the sample.

(a) Democrat Effect

(b) Race Effect
In line with previous findings, there seems to be no connection between bill sponsorship and electoral margins (e.g. Frantzich 1979; Wawro 2000). Although the coefficients for both activity and richness are statistically significant, there is no actual substantive change in MCs legislative portfolios. The district characteristic that does seem to shape how MCs identify problems is its racial composition. Figure 13 presents the gap between MCs representing proportionate black districts (10% of the population) and those representing majority black districts (51% of the population). In general, MCs from majority black districts identify one less problem and focus their sponsorship in one less policy area than those from proportionate black districts. Starting with richness, Figure 13: The Impact of Percentage Black Over Time: These plots show the first differences in Activity and Richness, given a change from 10% to 51% black population in a district, when the coefficient for “Percent Black” is allowed to vary over time.

![Figure 13](image-url)

Figure 13(b) shows a steep decline in richness of MCs who represent majority black districts beginning in 1965. There was no gap between black and non-black districts prior to 1965 because black voting strength was not commensurate with the black population. After 1965 and passage of the Voting Rights Act, black voters in majority black districts can actually hold their MCs accountable, so we see changes in how these members construct their legislative portfolios. We see a different pattern
for activity in Figure 13(a). There is a substantial increase in the gap during the 1970s, but it stabilizes and returns to earlier levels in 1980. Perhaps there was something particular about the redistricting process following the 1970 census that was resolved in 1980.

The larger point is that alterations to the political environment – such as passing the Voting Rights Act – alters MCs’ strategies of representation, setting forth new criteria for individuals to foster problem-solving reputations. Figure 13 also raises questions about the distinctive nature of black representation. Given that both groups, black MCs and those who represent majority black districts, sponsor fewer bills in more concentrated policy areas, one cannot help but ask about the quality of descriptive representation. On one hand, these racial gaps could show that black MCs are particularly in tune to the more narrow issue concerns of their black constituents. Alternatively, these findings could suggest that the incentives in black districts are improperly structured to reward less-active legislators. These questions are beyond the scope of this paper, but they are in line with the central idea that political costs set the fields within which MCs cultivate their reputations as problem-solvers.

5 Conclusion

Cooper and Young (1989) argue that House members sacrificed power on the floor in order to have unlimited sponsorship of bills. In this paper, I introduce a framework to help explain why members would make such a tradeoff: they want to establish problem-solving reputations that further their basic goals of reelection, institutional advancement, and good public policy. Making use of multilevel models, I applied our problem-solving framework to analyses of the volume and content of MCs’ legislative portfolios. Overall, I find that, rather than thinking of MCs as staking out one style of representation and sticking with it for the remainder of their careers, MCs adjust their bill sponsorship in relation to their political, economic, and institutional environments. Even though the ascriptive characterization is constant, we see that the implications of being a Democrat, a black representative, and a woman all shift in response to larger social and political conditions. Members are more active in terms of the number and types of problems they identify when they have more institutional resources such as committee chairmanships, seniority, and being in the majority.
Finally, MCs respond to exogenous events such as declining economic fortunes or alterations in public sentiment. From an agenda setting perspective, this provides a foundation for building individual-level evidence of congressional responsiveness similar to the aggregate analysis conducted by Jones and Baumgartner (2004).

That foundation is the core contribution of this paper. These results are not intended to demonstrate some sort of statistical support for a problem-solving framework. Instead, this exploration of bill sponsorship is to highlight the potential our framework of legislative problem-solving has for asking interesting questions and providing novel answers. Based on the findings in this paper, future research needs to investigate the importance of 1975 to the effects of party, gender, committee chairs, and seniority. Our findings about black representatives and those who represent majority black districts raises important questions about descriptive and substantive representation. Namely, how has the nature of black descriptive representation changed over time, and what are the implications in terms of black agenda setting. An obvious next step is to move beyond richness to examining the diversity of legislative portfolios and ultimately tracking how contextual factors shape the MCs choices to identify specific types of problems. Lastly, future research needs to derive testable implications that would clearly differentiate a problem-solving approach from position-taking. Only then can the strongest case be made in favor of viewing bill sponsorship as an effort to establish a problem-solving reputation. However, even in the absence of such clear distinctions, the value of legislative problem-solving is in bringing us closer to understanding the puzzle of bill sponsorship. Members of the House were willing to forsake control over the final outcome of legislation because they viewed the introduction of that legislation as the more central task of representation: placing citizens' concerns onto the national agenda. The problem-solving framework allows us to more accurately represent that reality.
References


URL: http://www.R-project.org


