Pivots or Partisans?

Proposal-Making Strategy and Status Quo Selection in Congress

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Abstract

Lawmakers vary considerably in how effectively they advance their priorities through Congress. However, the actual proposal-writing strategies undergirding these differences have remained largely unexplored, due to measurement and methodological difficulties. These obstacles have included prohibitively small sample sizes, costly data requirements, and strong theoretical assumptions. In this paper, we address these obstacles and analyze the proposal strategies of effective lawmakers directly, using original measures of the spatial locations of congressional bill proposals and associated status quos generated by jointly scaling cosponsorship, roll-call, and interest group position-taking data for 1,007 bills from the 110th through 114th Congresses. Because interest groups take positions on bills before they receive votes, at the time of introduction, our measures cover many bills that die in committee, permitting comparisons between successful and unsuccessful bills. We demonstrate that legislative advancement favors moderate proposals over partisan ones, and that effective lawmakers are those who make proposals closer to the median even at the expense of their preferred policy.

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Lawmakers often find their ambitions constrained by the preferences of other actors. In particular, legislators seeking to produce policy changes to address critical issues often discover that their *ex ante* preferred policy cannot gain enough support to get onto the agenda or pass into law. This basic constraint, when aggregated across all legislators, produces problems associated with polarization and gridlock and creates the conditions under which emerge many important legislative phenomena, including messaging to electoral bases and organized interests, legislative styles, gatekeeping patterns under various majority control regimes, and differential bill passage rates under divided and unified government. Nonetheless, some members of Congress *do* advance their legislative agendas, suggesting that although gridlock is resolute, it is not absolute. Thus, the extent to which some legislators are more inclined or better able to adapt to the preferences of their colleagues is fundamental to understanding both individual legislator behavior and macrolevel policy outcomes.

Perhaps because so few bills pass the modern Congress, the primary ends of much congressional proposal-making are not legislative, but electoral. Bills can signal a legislator's policy positions or fulfill campaign promises to voters or interest groups (Mayhew 1974; Rocca and Gordon 2010; Sulkin 2009). A frequent, often central, feature of such bills is that they are designed to fail in the present so that they can be used to gain electoral support in the future, by highlighting the differences between the parties (Lee 2016), demonstrating commitment to interest groups' priorities (Gelman 2017), or clarifying responsibility for policy failures (Groseclose and McCarty 2001).

Yet while some recent scholarship has examined these bills that are designed to "fail", it remains unclear how bills are designed to *succeed*. This is particularly puzzling since legislators have control over the policy content of the legislation they introduce, and design bills to shape implementation (Lauterbach 2020; Farhang and Yaver 2016; Huber and Shipan 2002). That is, legislators sometimes design legislation *as if* it might be enacted, despite the fact that so little legislation actually is. Moreover, some legislators are systematically better able to advance a personal legislative agenda (Volden and Wiseman 2014; Eatough and Preece 2020). Nevertheless, prior work has largely focused on the systemic and institutional factors that engender legislative effectiveness; that is, factors outside of a legislator's control as they craft a particular bill. Is it only that certain *types* of legislators are effective, or can legislators make *choices* that increase their ability to advance their personal priorities through the legislative process and into law?

One area over which legislators have total if not precise control is which policy status quos they target and where they position their proposals ideologically. However, empirical research into this possibility is limited by the long-standing challenge of estimating the locations of legislators, bill proposals, and status quos in a common ideological space (Clinton 2017). Estimating proposal and status quo locations using common ideal point estimation techniques requires strong assumptions about the curvature of legislators' utility functions. To avoid these, efforts to provide better-identified proposal and status quo estimates have leveraged the specific context surrounding individual roll call votes or additional information from alternative data sources such as cosponsorships (e.g., Woon 2008; Richman 2011; Clinton 2012; Peress 2013), or else have moved away from Congress to a some U.S. states with especially strong lobbying disclosure requirements (Thieme 2021). However, even these important advances exhibit key limitations, such as scoring general issue areas rather than specific bills, scoring only small samples of bills for which specific contextual information is available, only scoring bills subject to a roll-call vote, failing to place proposal and status-quo locations on a common dimension, or not covering federal legislation at all. These limitations continue to impede systematic examinations of status quo targeting and proposal placement in Congress specifically and have hampered our ability to explore the personal and institutional attributes that affect the advancement of legislators' policy priorities.

In this paper, we develop a new dataset of federal-level bill proposal and status quo estimates that allow us to investigate such long-standing substantive questions of legislator behavior in the U.S. Congress. To generate these estimates, our approach jointly scales roll-call and cosponsorship data with public positions taken by organized interest groups on legislation before the 110th through 114th Congresses. A key advantage of our approach is that it generates proposal and status quo estimates for hundreds of bills on which interest groups took positions but that died in committee, and thus never received a roll-call vote. Scoring such proposals allows for improved inferences about agenda-setting and legislative institutions—as well as the strategic decisions that legislators consider when writing legislation.

We proceed as follows. First, we review existing measures of bill proposal and status quo location estimates, to underscore the need for an approach that affords such estimates for a larger sample of both successful and unsuccessful federal legislation. Second, we detail our approach for generating

such estimates and the data we use to do so. Third, due to the centrality of these estimates for our substantive claims, we execute several validity checks. To establish convergent validity, we demonstrate that the legislator ideal points recovered by our method correlate strongly with established alternatives. To establish content validity, we demonstrate proposal locations and targeted status quos adhere to basic expectations of legislative behavior. Finally, to establish construct/nomological validity (c.f., Adcock and Collier 2001), we replicate Woon's (2008) finding that legislators with more agenda power (i.e., majority party members, and especially committee and subcommittee chairs) moderate their proposals. Together, these exercises validate our measure of proposal and status quo locations for the largest number of federal bills scored to-date.

Our measure thus validated, we apply it to two related analyses of proposal strategy in Congress. In the first, we show that legislative advancement winnows out more extreme proposals, consistent with prominent models of legislatures and bargaining (e.g Tsebelis 2002; Krehbiel 1998). In the second application, we demonstrate that more effective lawmakers respond to this winnowing by systematically introducing more moderate legislation that is further away from their own ideal points, essentially trading their proposals' alignment with their own preferences with higher likelihood of legislative success. These findings lend new insight into legislators' strategic choices when engaging in highly consequential policymaking activities. We conclude by outlining future uses of these estimates in the study of Congress, as well as noting avenues for expansion of these data.

Proposal-Making and the Estimation of Bill Proposal and Status Quo Locations

Theoretical models of legislative proposal-making have pointed to the importance of legislative content for lawmakers' abilities to effectively push bills through the policymaking process. Hitt, Volden and Wiseman (2017), for example, introduce a "valence" term into a spatial model of policymaking, showing that better-written legislation enables legislators to achieve higher levels of legislative effectiveness than is otherwise possible. Eatough and Preece (2020) show that women legislators make particularly strong use of larger legislative vehicles to push their priorities, enabling them to achieve higher levels of effectiveness overall compared to men (Volden, Wiseman and Wittmer 2013). Moreover, though

not directly related to legislative effectiveness, Woon (2008) shows that legislators with greater access to the agenda strategically moderate their proposals.

In spite of the clear interest in and importance of adjusting legislative content to effective lawmaking, empirical research in this area has been limited by longstanding methodological and measurement difficulties. More specifically, to date, widespread measures of bill proposal and status quo locations have proven highly elusive. As Clinton (2017) summarizes in his review of strategies for measuring policy changes, common methodologies for generating ideal point estimates for legislators (e.g. Poole and Rosenthal 1997; Clinton, Jackman and Rivers 2004) also produce reliable estimates of bills' cutpoints, but identifying proposal and status quo location estimates from these is fragile and depends the curvature of legislators' assumed utility functions. This fragile identification, per Poole and Rosenthal's (1991) warning, has prevented legislative scholars from using proposal and status quo estimates in analyses of policy-making.

Several recent studies have attempted to address the proposal location identification problem by incorporating additional information about the policy-making process itself into the estimation process. Clinton (2012) and Clinton and Meirowitz (2001, 2004), for example, utilize information from bills' legislative histories to determine how votes on various amendments and motions relate to one another. Using this information, estimation of individual "yea" and "nay" spatial parameters is constrained accordingly, allowing for better identification of each "yea" or "nay" location parameter for a given roll call. Several studies have applied this approach to examine policy changes in a variety of issue areas, such as immigration (Pope and Treier 2011) and civil rights (Jeong, Miller and Sened 2009). In spite of the advantages of this approach, however, the level of detailed historical information it requires precludes broad, multi-issue application of the method. Indeed, while incorporation of such information is well-suited to investigations of particular bills or sequences of bills, it is not practical for amassing estimates required to examine across-issue differences, overall bill proposal strategies, or differences between bills that receive votes and those that do not.

For this reason, recent studies have turned to other data to better identify status quo and proposal locations. In a recent paper on civil rights legislation in the 19th, 20th, and 21st Centuries, for example, Bateman, Clinton and Lapinski (2017) impute votes for members of Congress on legislation predating their tenures, based on their actual votes on similar legislation. Members who voted in

favor of modern reauthorizations of the Voting Rights Act, for example, would also have voted for the original Voting Rights Act, they argue, as the modern authorization is far more progressive than the original law itself. The addition of these imputed votes into an estimation matrix improves the estimation of bill cutpoints, ensuring that ideal points and cutpoints from the 21st Century are substantively comparable to 19th Century estimates. These improvements notwithstanding, though, the issue of fragile identification still obtains, as the method improves the identification of cutpoints, not the proposal locations themselves.

Rather than relying upon roll call data entirely, Richman (2011) uses information from candidate surveys (the National Political Awareness Test or NPAT) to better identify status quo locations at the issue-area level. That is, while roll call data provide information necessary to capture legislators' preferences, candidates' responses to survey questions about their desired policy changes—i.e., whether they believe policy in a specific issue area is too liberal or conservative—allow Richman to capture where current policy lies, relative to these legislator preferences. Indeed, if a member believes current policy is too conservative, then the status quo must lie to the right of her ideal point (and vice versa for status quos that are too liberal). Given the number of legislators who answer the NPAT and also possess a DW-NOMINATE score, this approach allows Richman to narrow down the spatial location of the status quo. In spite of the intuitiveness and unique features of this measure, though, the scores remain better suited for some applications than others. First, for scholars interested in bill-level analyses of the legislative process, the issue-level nature of these data is limiting—especially given the multi-issue nature of many modern bills. Consequently, Richman's methodology is less helpful for scholars interested in studying legislative behavior by individual legislators, the advancement of legislation in Congress, and other pursuits that require bill-specific information. Relatedly, while Richman's approach generates plausible status quo estimates, it does not generate proposal locations associated with the issue areas it covers. Thus, for scholars interested in the status quo specifically, Richman's approach is well-suited to such applications—particularly given the fact that it tracks changes in issue-level status quos over time. Nevertheless, for bill- and proposal-level examinations, other measures based on more bill-specific information are likely better-suited.

In their analyses of legislative proposal-making, Woon (2008), Peress (2013), and Thieme (2021) make use of such bill-specific information: cosponsorship data. In his study, Woon (2008) uses

cosponsorship information to generate bill proposal location estimates by arguing that members make cosponsorship decisions based on a random utility model centered around their proximities to the proposed legislation. Doing so allows Woon to measure a proposal location independent of its related status quo. Given the prevalence of cosponsorship data, this approach generates thousands of proposal estimates in each Congress; moreover, given its incorporation of DW-NOMINATE scores into the estimation process, the approach makes use of well-vetted estimates of legislator preferences. These advantages notwithstanding, though, Woon's measures lack some key features—namely, bill proposals' status quo locations—that might broaden their applicability to studies of policymaking in Congress.

Peress (2013) therefore extends Woon's approach along these lines by developing a method that *jointly* scales roll call and cosponsorship decisions, in order to identify *both* proposal locations and vote-specific cutpoints. As with Woon's approach, key to Peress's identification strategy is his characterization of members' decisions to cosponsor: rather than a relative-utility choice between a proposal and its related status quo, cosponsorship decisions are better described as a "utility threshold" decision—meaning that a member of Congress will sponsor legislation that is sufficiently close to her ideal point, regardless of the location of the status quo. Under this characterization, then, cosponsorships are inherently expressive: the decision *against* cosponsorship does not count as tacit support for the status quo. This stands in contrast to voting decisions, for which members clearly must decide between a proposal and a reversion point or status quo.

Peress shows that this characterization of cosponsorship data, when combined with information about a bill's cutpoint imparted by roll call data, allows for the identification of proposal locations and cutpoints on the same preference scale. When combined, the cutpoint information generated through voting data and the proposal-specific information imparted by cosponsorship allow one to then "solve" for the location of the status quo. Thus, rather than relying upon fragile identification via players' utility functions, Peress's approach leverages information from cosponsorship decisions to identify bill locations.

This innovative approach has limitations as well, however. Specifically, because legislative proposals change considerably before they eventually receive votes, finding cosponsorship data that is specific to the version of a bill that ultimately receives a vote is difficult. In fact, because the House does not allow cosponsorship of amendments, Peress is forced to restrict his analysis to a relatively small number of

bills introduced in the Senate. Thus, while his joint scaling of cosponsorship and roll data provide a creative and useful strategy for identifying proposal and status quo locations, the operationalization of the method generates a sample of bills too small for many research applications within the study of legislative behavior and policy-making. In response, Thieme (2021) incorporates lobbyist declarations from three U.S. state legislatures into the estimation process, in order to expand the number of bills estimable using Peress's general framework—including bills that did not receive roll call votes. He then uses these estimates to provide evidence about party power and agenda control in these state legislatures. Thus, Thieme provides a useful framework for expanding Peress's methodology, and our study shares many methodological similarities with his approach. However, given its reliance on required lobbyist declarations, Thieme does not provide bill data at the federal level, which is the focus of our research.

Taken together, then, current approaches to proposal and status quo estimation lack several characteristics necessary for widespread application in the study of legislative politics in general and the study of strategies for legislative effectiveness in particular. Indeed, while some approaches excel in identifying policy movements as bills progress through Congress, the information necessary to execute these approaches precludes widespread application across issue areas and time periods. Conversely, while other approaches rely upon more easily collectable data, institutional features in Congress severely restrict the sample of bills score-able through such methods at the federal level, relative to the state level. Further still, most of the aforementioned approaches (with the exception of Woon's and Thieme's) fail to provide a means for estimating proposal locations for bills that never receive a roll call vote.[1]

Here, we address these challenges by incorporating federal-level position-taking by interest groups on bills before Congress, as collected by the non-profit MapLight (Lorenz, Furnas and Crosson 2020), into the estimation process. In doing so, we generate bill proposal and status quo location scores for 1,007 pieces of legislation introduced between the 110th and 114th Congresses. While far from a census of legislation introduced during this period, our sample of federal-level proposal and status

[1]Richman's method provides some such information, as it generates a status quo location for various issue areas at the beginning of each Congress. However, given the issue-level—and not bill-level—nature of his estimates, the resulting data are more useful for macro-level examinations of policy-making outcomes than individual-level differences in bill-sponsorship patterns.

quo estimates on a common scale is the largest to date, exceeding by over a factor of ten the one or two dozen bills (Peress 2013) or 15 issue-units (Richman 2011) examined in prior studies[2] at the federal level. More importantly, the inclusion of interest group positions permits proposal and status quo estimates of bills that never received a roll-call vote. As we demonstrate below, this enables more precise examination how the legislative process favors moderate proposals. Below, we detail at greater length how interest group position-taking data enable one to generate such scores and further lay out the methodology and data underlying our approach.

Using Position-Taking Data to Estimate Bill Proposal and Status Quo Locations

As noted above, we build upon Peress's estimation approach to generate our location scores for bill proposals and their associated status quo locations. According to this approach, bill proposal (and, later, status quo) locations may be identified by jointly scaling members' roll call and cosponsorship decisions. With regard to voting decisions specifically, Peress's model mimics most common spatial models of voting, with members voting in favor of legislation when the proposed policy movement p_j lies closer to the member i's ideal policy α_i than the associated status quo s_j. Formally, member i vote "yea" when

$$u^p_{i,j} \geq u^s_{i,j}$$

$$-(p_j - \alpha_i)^2 + \epsilon^p_{i,j} \geq -(s_j - \alpha_i)^2 + \epsilon^s_{i,j}$$

$$\epsilon^p_{i,j} - \epsilon^s_{i,j} \geq p_j^2 – s_j^2 - 2\alpha(p_j - s_j)$$

Suppose that $\epsilon^p_{i,j} - \epsilon^s_{i,j}$ has standard deviation θ_j and CDF $F(\epsilon/\theta_j)$. Defining $\epsilon_{i,j} = \epsilon^p_{i,j} - \epsilon^s_{i,j}$ and supposing that $\epsilon_{i,j}$ are independent across i and j, we can show that:

[2]It is worth noting that Woon (2008) scales more *proposals* than does our method. However, his method does not identify status quo locations.

$$Pr(y_{i,j} = 1; \alpha_i, p_j, s_j, \theta_j) \sim F\left(\frac{p_j^2 - s_j^2 - 2\alpha(p_j - s_j)}{\theta_j}\right)$$

.

Given his goal of recovering p_j and s_j, Peress combines this parameterization with cosponsorship information to prove that p_j and s_j are globally identified using a joint scaling of roll call and cosponsorship data. To capture the expressive, non-instrumental nature of cosponsorship decisions, he next models cosponsorships using a utility threshold model. Under such a model, members will cosponsor legislation when their proximity of that legislation crosses some (bill- and legislator-adjusted) threshold. Formally, member i will cosponsor bill j when

$$u_{i,j}^c \geq \overline{u}_{i,j}$$

$$-(p_j - \alpha_i)^2 \geq \theta' x_i + q_j + \epsilon_{i,j}^c$$

where x_i represents a member-specific fixed effect and q_j represents a bill-specific fixed effect. Note that, similar to Woon (2008), this logic applies to legislator *cosponsorship* decisions specifically (not sponsorship). Moreover, as Peress (2013) shows, this method for modeling cosponsorship decisions ultimately better explains variation in cosponsorship behavior than a wide variety of other underlying models.

The threshold model of cosponsorship is a simplification. It allows identification of proposal and status quo locations while also explaining why a legislator would not necessarily cosponsor every bill for which they would vote "aye" (Koger 2003). However, cosponsorships arise from diverse considerations like influencing congressional agenda-setters (Kessler and Krehbiel 1996; Wilson and Young 1997), fostering legislative dealmaking (Bernhard and Sulkin 2013), and electoral position-taking (Harward and Moffett 2010; Koger 2003). While these represent distinct motivations, they don't imply cosponsoring disliked bills. Thus, assuming that groups cosponsor bills that are close enough to their preferences is appropriate. Insofar as bill- or member-level factors effect the probability of cosponsoring, we absorb these through fixed effects.

Peress shows that, when modeled in this fashion, roll call and cosponsorship information allow

one to accurately recover proposal and status quo locations. Central to his method, however, is the assumption that the item to which members respond—proposal p_j—remains constant across cosponsorship and voting decisions. As noted above, this eventually serves as a major impediment to the broad application of Peress's methodology, as most cosponsorship decisions occur at a different time than votes for final passage—meaning that the cosponsored version of a bill frequently differs substantively from the version upon which members evaluate against the status quo. As a result, for thousands of bills that are amended before receiving a vote, usable cosponsorship data are not available. In the House, for example, members cannot cosponsor amendments at all, leading Peress to focus his efforts on Senate bills. Even in the Senate, though, cosponsorship of amendments is far less typical than cosponsorship on original legislation. Consequently, Peress's approach is ultimately applicable to a relatively small subsample of bills that receive roll call votes in Congress.

We address this challenge by introducing information from interest-group position-taking into Peress's estimation procedure.[3] As previous studies have underscored (e.g., Lorenz 2020; Crosson, Furnas and Lorenz 2020), interest groups take public positions on thousands of pieces of legislation before Congress. Whether through editorials, social media, Congressional testimony, press releases, or other venues, interest groups routinely urge members of Congress to vote in favor of or against specific bills in the House and Senate. Crucially, these positions share several similarities with roll call voting. First, like roll call voting, interest-group positions are bill-specific and can be characterized in a "yea" v. "nay" fashion. Moreover, interest groups take positions on a large number of bills across a wide range of issue areas. Finally, interest groups commonly take positions on many of the same bills within each Congress. Taken together, these features of interest-group position-taking data enable their use in scaling applications. Crosson, Furnas and Lorenz (2020) and Thieme (2020), for example, treat interest groups as quasi-legislators and jointly scale their bill-specific positions with roll call data in Congress and the state legislatures to generate ideal points for position-taking groups.

Unlike roll call voting, however, interest group position-taking is *not* confined in its timing. Indeed, a bill need not come up for a vote in order for a group to take a position on it. This feature in particular renders such data highly useful for applying Peress's basic methodology to a larger number of bills

[3]As noted above, Thieme has executed a similar approach at the state level. To the best of our knowledge, however, ours is the first attempt at the federal level to extend Peress's methodology.

than what Peress was able to achieve. That is, because interest groups frequently take positions at the *beginning* of the legislative process—often at the time of bill introduction—the timing of such positions render them usable for scaling the thousands of (previously unusable) cosponsorship decisions members make when legislation is originally introduced. Put differently, since interest groups provide an up/down vote on introduced legislation—allowing for the estimation of a cutpoint—cosponsorship on original legislation may be used to identify proposal locations *at the time of introduction*. Consequently, not only does jointly scaling interest group position-taking, cosponsorship, and roll call data make greater use of existing cosponsorship data to generate location estimates, but it also allows for the estimation of proposal locations for bills that never actually receive a roll call vote. Our approach thereby generates estimates for more bills than was possible under prior methods, and crucially over 80 percent of these estimates relate to bills that did not receive a roll call vote.

In addition to the practical, methodological benefits of interest-group position-taking for this scaling application, it is worth underscoring a related theoretical advantage of such data for capturing preferences over nascent pieces of legislation. That is, while one might be concerned that strategic interest group position-taking could obfuscate their 'true' preferences, our data from the very *beginning* of the legislative process are seemingly less susceptible to such strategic considerations. First, while it is well-documented that interest-group *scorecards* are sometimes designed to distinguish between predetermined legislative "friends" and "foes," they—by their definition—are generated using *only* bills that receive a roll call vote. Indeed, absent an up/down indicator of support and opposition, interest groups lack sufficient information to create such distinctions. Second, and more broadly, interest groups have comparatively less to gain, with respect to the content of policy itself, by dissembling at the time of introduction—particularly relative to the middle/amending stages of bills that progress that far (here again, a minority of bills in our data). Indeed, given that most bills die before receiving any kind of consideration, one could argue that groups' position-taking upon introduction is *especially* sincere. For these reasons, in addition to the broader methodological importance of scoring bills and status quos for bills that do not receive roll call votes, we believe that the interest group data we rely upon here provide a solid foundation upon which to generate our estimates.

Finally, we estimate proposal and status quo locations in a single dimension. We do so both

because of the well-documented explanatory power of a single preference dimension in American politics (e.g., Poole and Rosenthal 1991, 1997), and also because of the preponderance of theoretical models of policymaking assume a unidimensional policy space. Nevertheless, some scholarship on legislator preferences does find across-issue heterogeneity and multidimensionality in roll call behavior (Crespin and Rohde 2010; Roberts, Smith and Haptonstahl 2016; Aldrich, Montgomery and Sparks 2014). Fortunately, the nature of our data and estimation technique assuage some of the concerns highlighted in this literature. First, some scholars have argued that party polarization and majority party agenda-setting might introduce error to the extent that the bills for which we estimate proposal and status quo locations were subject to majority party agenda-setting. However, the large majority of bills on which interest groups take positions in our data died in committee, and are not a product of majority party gatekeeping. This is, indeed, a key strength of our data that we discuss in more detail in the next section. Second, some scholars, such as Crespin and Rohde (2010), find substantial intra-legislator differences in appropriations roll-call-revealed preferences across substantive policy areas. These differences suggest that some issue areas may be better characterized by our proposal and status quo estimates than others and thus that scores derived from bills across many issue areas may predict legislator roll-call behavior better for some issue areas or individual bills than others. Our method would permit estimation of issue-specific bill locations, given sufficient bills with interest group position-taking data in a given issue area. Until such time, analysts should use caution in applying our general estimates to lawmaking solely in a particular issue area, perhaps using Crespin and Rohde's findings as a guide.

Data and Estimation Procedure

To execute our modified application of Peress's methodology, we rely on interest-group position-taking data compiled by the non-profit organization MapLight. As Lorenz (2020) and Crosson, Furnas and Lorenz (2020) summarize, MapLight uses a combination of both automated and traditional data collection methods to search for public interest group positions for a large number of bills introduced in each Congressional session. Sources for these positions include press releases, newsletters, social media, coalition letters, and other publicly observable statements, MapLight amassed interest-group positions for thousands of bills in both the House and Senate, with strong substantive coverage across

policy areas.[4]

Given that MapLight only records a position for an interest group when it takes a clear position in support or opposition to a specific bill, the data allow one to scale groups jointly with legislators, generating ideal points for such groups on the same scale as members of Congress (Crosson, Furnas and Lorenz 2020). We incorporate interest-group position-taking in a similar fashion here, introducing interest groups as legislators within our roll call matrix. Given that interest groups may change their position on a bill as it changes substantively, however, we introduce *amended* legislation as its own item within the roll call and cosponsorship matrices. Though proposal locations for such legislation are estimable at the time of introduction, we typically are not able to generate updated proposal locations for subsequent iterations of amended legislation (given that such amendments are generally not cosponsored). However, splitting altered bills into separate items allows us to ensure that interest groups' positions are paired with the proper version of a piece of legislation. Voting decisions in our estimation procedure are modeled identically to those found in typical applications of item-response theory to ideal point estimation (see Clinton, Jackman and Rivers 2004):

$$Pr(y_{i,j} = 1; \gamma, \beta, \alpha) \sim F(\beta_j \alpha_i + \gamma_j)$$

where discrimination parameter $\beta_j = \frac{-2(p_j - s_j)}{\theta_j}$ and difficulty parameter $\gamma_j = \frac{p_j^2 - s_j^2}{\theta_j}$.

Treating interest group positions on bills as equivalent to legislator roll-call votes allows us to generate scores for the many bills (approximately 80%) that never receive roll-call votes. However, unlike legislators, most groups take positions on very few bills. We assume that groups' decisions to take a position or not depend on the relevance of issues covered in the bill to the group's interests. Most groups have relatively narrow lobbying agendas focused on only a few issue areas (Heinz 1993), and expand beyond that in response to coalitional dynamics (Fagan, McGee and Thomas 2021).

[4]For a further discussion of potential selection issues associated with using MapLight data, which are minimal in our application (see Appendix B), see Lorenz (2020) and Lorenz, Furnas and Crosson (2020).

Accordingly, we treat groups' not taking a position as missing data.[5]

To determine which bills and interest groups are included in our estimation process, we apply a standard similar to that detailed by Crosson, Furnas and Lorenz (2020). That is, we subject our position-taking matrix to k-core decomposition process Kong, Shi, Wu and Zhang (2019), a simple graph-theoretic method for finding the densely connected subgraphs(Dorogovtsev, Goltsev and Mendes 2006). We set k = 5. Rather than applying this standard to a combined roll-call/interest group matrix, however, we use the procedure to ensure that interest-group position taking at the *bill introduction* stage is in the 5-core of the interest group position-taking network. As Crosson, Furnas and Lorenz (2020) explain, k-core decomposition decomposes a matrix to find the dense core of a network at some threshold k, where a higher k indicates a more stringent filtering threshold, and thus a smaller, and more connected resulting subgraph. A k-core subgraph is one in which each node is connected to at least k other nodes that are themselves also connected to k nodes. After applying this procedure to our data, we are therefore left with a position-taking matrix of groups that took at least 5 positions on introduced bills that themselves had at least 5 positions taken on them (by groups also taking at least 5 positions on bills in the 5-core, recursively). That is, bills with fewer than 5 positions taken on them by organizations that take few positions themselves drop out of the estimation matrix. This ensures that our cutpoint estimates are derived from the core of the position taking network.[6]

Cosponsorship information, which is drawn from Fowler, Waugh and Sohn's (2017) compilation of GovTrack's cosponsorship data, is also organized into a matrix where rows represent legislators and columns represent the same bills/bill versions found in the roll call matrix. In this case, however, interest groups' cosponsorship "decisions" are simply coded as missing, since interest groups are not able to cosponsor legislation. Using these data, we model cosponsorship decisions as follows:

[5]Another approach could treat group positions as cosponsorships under Peress's threshold model. This would explain groups' frequent non-position-taking, but assumes that groups ignore the status quo policy. This seems a strong assumption, because groups often have shaped and actively defend policy status quos (Baumgartner, Berry, Hojnacki, Leech and Kimball 2009). Moreover, applying the threshold model to group positions requires auxiliary assumptions to predict groups' opposing legislation, since legislators cannot "anti-cosponsor" bills, and by extension assumptions about the missingness of legislators' "anti-cosponsorships".

[6]An ancillary benefit of using interest group position-taking from the core of this network to better identify proposal and status quo locations is that it functionally limits our sample to substantively important bills. Because we only are able to estimate parameters for bills on which there was substantial interest group activity, bills that are of little importance to powerful political actors tend to be excluded. Furthermore, to the extent that so-called "messaging" bills are included in the set we estimate despite this selection process, Gray and Jenkins (2019) note that members' voting patterns on symbolic and policy bills are substantively quite similar.

$$Pr(y^c_{i,j} = 1) \sim F(-x_i - q_j - \rho(p_j - \theta_i)^2)$$

where x_i and q_j are legislator- and bill-specific fixed effects and ρ represents the weight that legislators place on ideological proximity (rather than member- or bill-specific factors) in rendering their cosponsorship decisions.

To jointly scale the above voting and cosponsorship decisions, we use a Bayesian approach, assuming the following priors over the parameters in our model:[7]

$$\alpha_i \sim \mathcal{N}(0, 1)$$

$$x_i \sim \mathcal{N}(0, 1)$$

$$\gamma_j \sim \mathcal{N}(0, .04)$$

$$q_j \sim \mathcal{N}(0, 1)$$

$$p_j \sim \mathcal{N}(0, 1)$$

$$\rho \sim U(0, 1)$$

For parameters common to previous applications of Bayesian IRT to ideal point estimation, these prior distributions mirror those found in previous studies. For parameters not found in prior studies, including $x_i,\ q_j,\ p_j$ and ρ, generally uninformative priors are drawn from a standard normal distribution.[8][9] Finite sample identification is achieved by positively and negatively truncating the prior distributions of a known liberal and conservative member of Congress,[10] in a fashion similar to that introduced by Martin and Quinn (2002). Note that these members are not used as anchors, fixed at endpoints of the scale; rather, these actors' priors are merely truncated to be either positive or negative, respectively.

[7]For the full model statement, along with all of the code used to estimate our scores, see Appendix A

[8]The lone exception is the weighting parameter ρ, for which entirely uninformative Uniform priors are used.

[9]To ensure that our priors are not generating unduly moderate proposal location estimates, we re-estimate our bills using a uniformly distributed prior for p, ranging from -1 to 1. The results of this exercise are reported in Appendix TK and display a high level of correlation with the estimates reported here.

[10]Following, Crosson, Furnas and Lorenz (2020), we use Rep. Jim Sensenbrenner (R - WI) on the right and Rep. Pete Stark (D - CA) on the left

We generate our parameter estimates in JAGS, running 3 chains of 55,000 iterations each, using a burn-in of 5,000 and thinning to every 50th iteration. In total, posterior distributions were generated for 15,150 parameters, over a time period of approximately seven days. To ensure as efficient an estimation process as possible, we generated starting values for α_i, β_j, and γ_j by scaling the roll call matrix using the `ideal()` function in the **R** package `pscl` (Jackman 2017). Doing so is conceptually similar to `ideal()`'s usage of eigenvalue-eigenvector decomposition to generate starting values for estimated parameters.

Validation

Given our scores' expanded coverage, including of pre-vote stages of the legislative process, we believe the data we generate are useful for a wide variety of applications. Before applying the scores to several long-standing questions of legislative organization and behavior, we undertake several checks on their validity. First, we compare the legislator and interest group ideal points that result from our estimation procedure to ideal points generated via previous approaches. After establishing that our ideal points bear strong resemblance to previous measures of legislative and interest group preferences, we next validate the bill scores themselves. We first provide some basic descriptive statistics for our scored bills, comparing our sample to the universe of introduced bills. We then provide evidence that our bill selection and scoring methodology result in valid measures for examining legislative trends in Congress by re-examining findings from previous investigations of proposal behavior. In particular, we find that our scores replicate several key findings from Woon's (2008) and Peress's (2013) earlier examinations of legislative proposals.[11]

Estimated Legislator and Interest Group Ideal Points Correlate Strongly with Established Alternatives

As a convergent validity check on our scores, we take advantage of the fact that our estimation process generates legislator and interest group ideal points in addition to proposal and status quo locations.

[11] We are generally not able to compare our scores directly to Woon's or Peress's bill proposal scores, given that our data cover a different time period than do those studies.

Figure 1: **cIGscores v. DW-NOMINATE, 110th - 114th Congresses**

Notes: *Here, the y axis represents the NOMINATE score for each legislator who served from the 110th to 114th Congresses. Overall, the Spearman correlation between NOMINATE and cIGscores equals 0.952.*

That is, we compare here our resulting ideal points to existing measures of legislator preferences, in order to assess whether any peculiarities about our bill sample or estimation process significantly alter the recovered dimension underlying our scores. Overall, we find that in spite of the fact that our estimation procedure introduces two new data sources to traditional vote-based preference measures, our recovered ideal points correlate strongly with previous measures.

Figure 1 compares our ideal points, which we call cIGscores, to first-dimension DW-NOMINATE scores.[12] As the figure depicts, the correlation between the sets of ideal points is strong, exhibiting a Spearman correlation of $\rho = 0.952$. Though perhaps not surprising (given that cIGscores and DW-NOMINATE share some underlying roll-call data), this correlation compares favorably to other scores' correlations with DW-NOMINATE, such as CFscores ($\rho = 0.844$) and Peress's own "combo" cosponsorship-voting ideal points ($\rho = 0.87$).[13]

In addition to this correlation, we show in Supplemental Information D, that correlations with

[12]We call our ideal points cIGscores, because the data underlying our scores is identical to the data used to estimate Crosson, Furnas and Lorenz's (2020) IGscores—with the exception of the added cosponsorship data here.

[13]The Spearman correlation for Peress's scores is drawn from the legislator ideal points provided in his replication file [14] It is unclear whether these ideal points are from a single Congress or all Congresses in his data, as the materials included only one dataset with legislator ideal points.

previous composite measures of legislator and interest-group preferences—Crosson, Furnas and Lorenz's (2020) IGscores—are similarly strong, despite the fact that cIGscores rely upon only a subset of groups and bills used to generate those measures. These correlations, both in themselves and in comparison to other measures' correlations with the same measurements, give us some baseline reassurance that our new data and modified estimation procedure nevertheless recover preference dimensions and relationships that are well-understood in previous research.

Bill and Status Quo Coverage, Attributes

Next, we present the raw bill and status quo scores themselves, and report basic descriptive information about the scores and our sample of bills. These exercises serve as an exercise in content validation for our measures, ensuring that the estimated scores do not cover a peculiar sample of bills, nor do they exhibit qualities that are dissonant with conventional wisdom about American policy-making.

Bill Selection

In terms of advancement through the legislative process, our scores compare similarly to all bills introduced during the 110th through 114th Congresses. Overall, 3.4 percent of our bills eventually became law, compared to 2.8 percent of all bills over the same time period.[15] Likewise, 15.3 percent of our bills passed through their chamber of origin, compared to 15.5 percent of all bills. Additionally, chamber origination patterns are similar between our sample of bills and the population introduced over the same time period. 59.8 percent of our bills originated in the House (compared to 65 percent of all bills) and 40.2 percent in the Senate (compared to 35 percent overall).[16] Taken together, these similarities in origin and outcomes suggest that our scored bills cover a subset of bills that does not substantially differ from the population of bills on at least a few major dimensions related to progression to passage. Moreover, given that the recovered ideal points presented above correlate so

[15] Appendix B provides a Congress-by-Congress comparison of the outcomes of the bills in our sample to the population of bills introduced during the Congresses covered by our scores. Though our bills exhibit a similar rate of passage overall compared to the population of bills, the 114th Congress features far fewer bills that became law than other portions of our sample. The source of this difference is unclear, but it does not appear to have altered the static ideal points generated when all Congresses are pooled.

[16] Appendix B also presents a Congress-by-Congress comparison of the share of our bills originating in the House and Senate for each Congress in our sample.

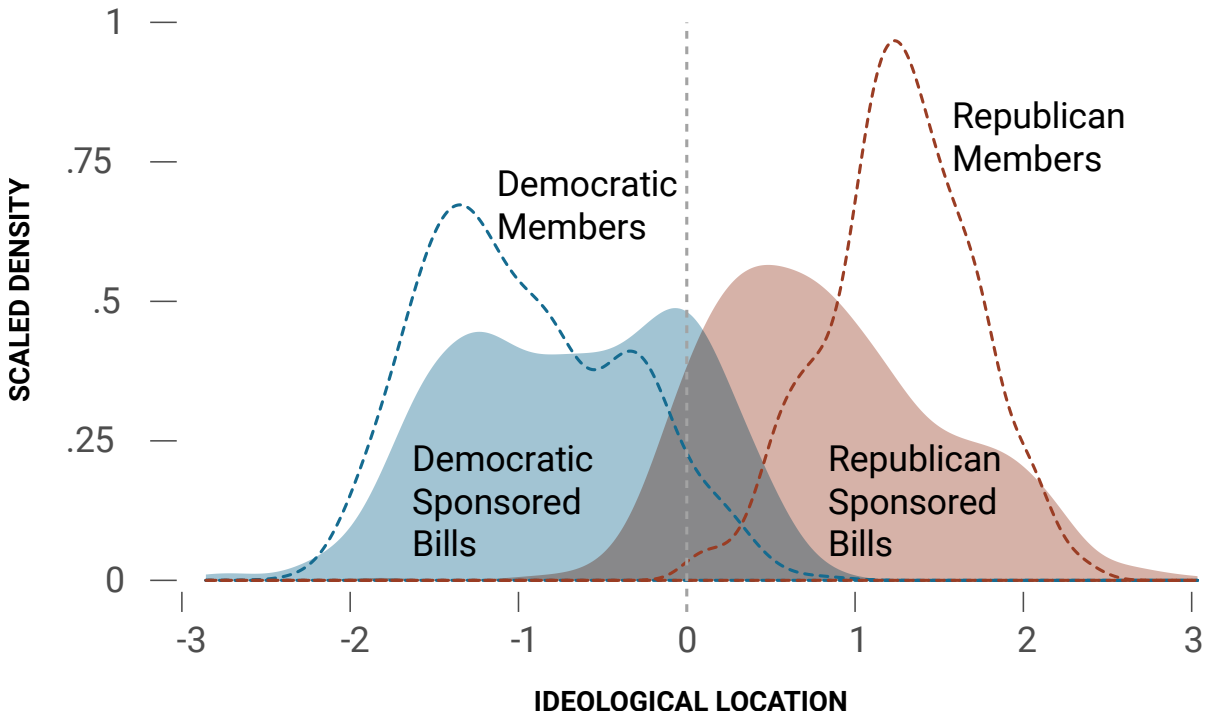


Figure 2: **Bill Proposal Locations and cIGscores, 110th - 114th Congresses**

Notes: *Solid densities depict distributions of proposal locations, while dashed densities depict cIGscores for all members who served in the 110th through 114th Congresses.*

strongly with broad-based roll-call preference measures, it appears that the bill data underlying our scores is well-suited for examining bill proposal patterns in Congress.

In spite of these encouraging similarities, one might nevertheless maintain reasonable concerns about selection issues related to our approach's reliance on interest group position-taking. Fortunately, although interest groups do tend to focus their efforts on higher-salience and "hot" legislative issues from session to session (e.g., Kingdon and Thurber 1984) our sample of bills constitute a reasonable representation of meaningful legislative activity in the 110th through 114th Congresses. We present a full analysis and selection model regression results in Appendix B; however, generally speaking, the sample of scored bills unsurprisingly skew toward "important" bills and away from commemorative bills in the Congressional Bills Project data—particularly unsurprising, given our method's focus on the core of the position-taking network, referenced above. Still, using Volden and Wiseman's legislative significance coding procedure, we find that our procedure does not *just* score significant bills:

indeed, over 80 percent of our scored bills are coded as "substantive" but not subject to *Congressional Quarterly* coverage.

In terms of issue topics, scored bills exhibit no statistically significant differences in terms of Policy Agenda Code coverage for a majority of topic codes. While the full results regarding issue coverage are detailed at much greater length in the Appendix, even the statistically significant terms in the selection models are quite small substantively, with scored bills ranging from 0.6 percent to 2.7 percent more or less likely to belong to a particular policy code than the full population of non-commemorative bills. Still, some of these departures are worth noting, as they point to the importance of understanding interest group behavior for appropriately applying the data we present here. In particular, scored bills are more likely to cover interest-dense issue areas such as domestic commerce and civil rights legislation. These issue-area tendencies are considerably smaller in magnitude than groups' tendencies to target significant legislation, but they do represent a clear tendency for our scoring approach to track the density of interest populations and salience. Even still, to further underscore the general importance of legislative significance in driving selection—as opposed to issue area or legislative characteristic—it is important to note that most of the issue-driven selection differences in our sample disappear when we subset to substantive and significant legislation (again summarized in Appendix B). Taken together, then, we are confident that we can use our sample of scored bills to examine broader legislative trends, particularly as they pertain to salient, substantive issues before the U.S. Congress between the 110th and 114th Congresses.

Targeting of Status Quos

Figure 2 presents distributions of our proposal locations across all Congresses within our sample, broken down by party. To provide context, we also present party-level distributions of legislators' cIGscores (depicted in dashed lines). As the figure illustrates, proposal and ideal point estimates cover similar ranges on the ideological scale, with most Democratic proposals lying to the left and most Republican proposals lying to the right. Notably, however, the proposals exhibit considerably more moderation and overlap than do the legislator ideal points, a phenomenon we discuss at greater length below. Additionally, the distribution of Democratic proposals includes two significant modes—one

notably more moderate (-0.087) than the other (-1.204).[17] Although Republican proposals range considerably—from moderate to highly conservative—the distribution of proposals captured in our sample features only one mode, located at 0.52. Here again, we discuss these differences in moderation at greater length below.

As noted above, a benefit associated with Peress's approach and retained in our method is the estimation of status quo locations. In Figure 3, we present the status quos targeted by legislators in the 110th through 114th Congresses, broken down by party. As the figure illustrates, Republicans generally—though not always—target left-leaning status quo policies, while Democrats typically attempt to address right-leaning status quos. Some interesting exceptions make sense, in light of contextual information about the bills in question. For example, despite the highly conservative (in this case, pro-security) status quo addressed by S. 356 (114th Congress), noted conservative Sen. Mike Lee (R - UT) joined 21 Democratic cosponsors[18] (compared to just 9 Republican cosponsors) to introduce the Electronic Communications Privacy Act Amendments Act. The bill aimed to protect U.S. citizens' privacy in electronic communications and appealed to Lee's libertarian proclivities (in contrast to the pro-security tendencies of much of his caucus). Similarly, in H.R. 2988 (113th Congress), Rep. Dan Lipinski (D - IL) introduced the Forty Hours Is Full Time Act, which would have shifted the definition of "full-time employee" (which is used to determine a small business's liability for providing health insurance coverage) from 30 hours per week to 40. In altering this definition—established under the Affordable Care Act—the bill would likely have prevented some Americans from receiving employer-provided health insurance. Nevertheless, Lipinski's record as a pro-small-business moderate in the House provides useful context for why a Democrat might target a left-leaning status quo.

Beyond basic descriptive information about proposal location and status quo targeting, of course, our scores enable both re-tests of previous findings and original empirical examinations about the legislative process. Thus, in the next section, we examine several patterns that emerge in our proposal-location data. In doing so, we not only lend further credibility to our estimates, but also demonstrate the usefulness of our data for future applications.

[17]For reference, the median legislator (of any party) in the dataset is located at 0.520.
[18]Technically, 20 Democratic cosponsors plus Sen. Bernie Sanders.

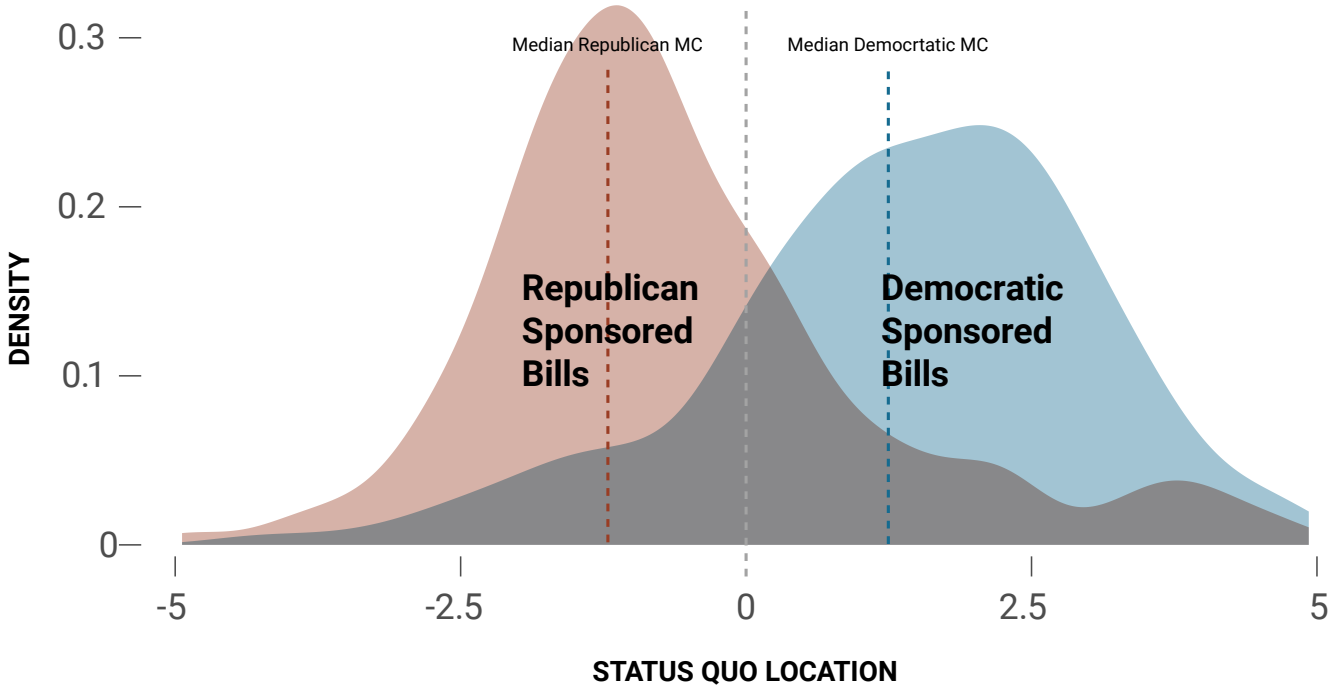


Figure 3: **Status Quo Locations for Introduced Bills**

Notes: *Status quo locations for scored bills, across Congresses 110 through 114.*

Replication of Previous Empirical Findings

We next examine the extent to which our scores replicate findings from previous studies of bill introduction and agenda-setting, and conform with contemporary understandings of legislative behavior. As an added benefit, this replication serves as an exercise in nomological/construct validation (c.f. Adcock and Collier 2001). More specifically, we follow Woon (2008) and Peress (2013) in examining individual lawmakers' bill introduction behavior, showing that legislators often introduce legislation that is not located at their ideal point. That is, because our model is, like Woon's and Peress's, not dependent upon sponsorship data to generate estimates, we can estimate whether and when legislators propose location away from their ideal points. We show that these departures tend toward moderation. We further show that this tendency is pronounced among members of a chamber's majority party and committee leadership, in line with previous literature. Collectively, these exercises lend credence to the validity of our scores and demonstrate their usefulness in the empirical study of legislative behavior and legislative institutions.

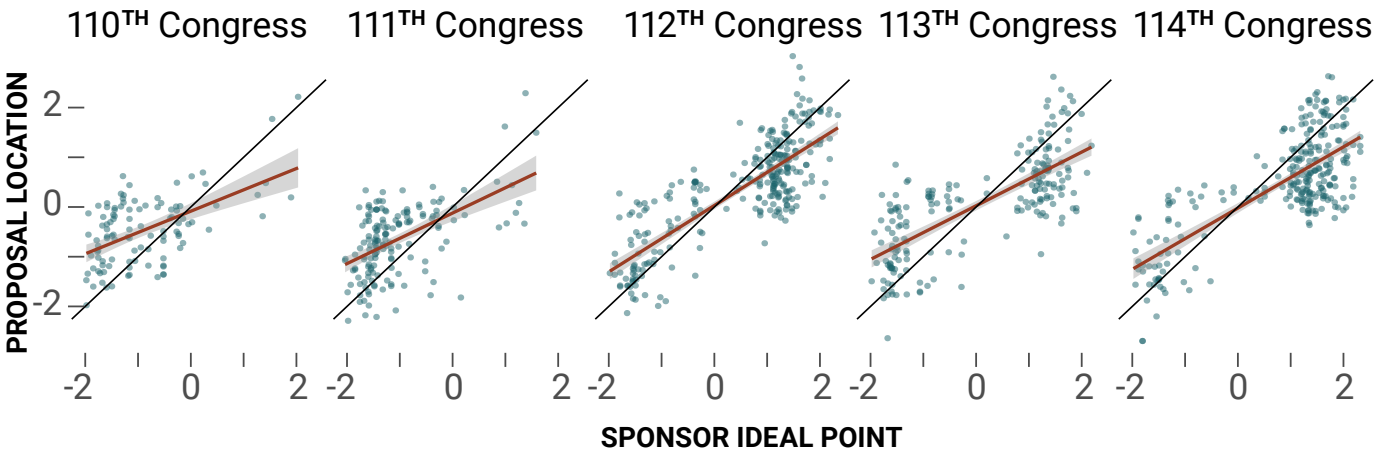


Figure 4: **Members Frequently Introduce Bills Not at their Ideal Point**

Notes: *Black line depicts perfect correlation between sponsor and proposal locations; red depicts actual association. Facetted by Congress. Overall correlation between sponsor and proposal location:* $\rho \approx 0.78$.

While bills are, in theory, proposed changes to status quo policies, the vast majority of bills stand essentially no chance of being enacted. Given that members of Congress still introduce many bills, their behavior raises the question: what is legislation for? A substantial body of work, beginning with Mayhew (1974), has argued that legislators seek position-taking activities as means to secure reelection. Bill introductions would be an obvious and somewhat costly signal of a member's legislative positions, and thus one might expect bill introductions to be expressive of a legislator's policy preferences (perhaps as constrained by the preferences of their election constituency) and thus to fall on its sponsor's ideal point. Woon (2008), however, finds that members with higher agenda priority (being in the majority party, and particularly the chair of a committee) anticipate needing to satisfy pivotal moderate legislators, and so moderate their legislative proposals more than others do. Such members do so because their proposals are more likely to receive agenda space and therefore stand a greater chance at actually moving the status quo. Thus, if legislation is intended to pass, it should be more moderate among members with higher agenda priority, all else equal.

In Figure 4, we present scatter plots of members' estimated ideal points and the locations of their proposals, faceted by Congress. Were members introducing legislation at their ideal points, all points would fall on the diagonal. Clearly, this is not the case; there are many instances of proposals off the diagonal, and thus different from a member's ideal point. In particular, the overall pattern is that members introduce legislation that is substantially more moderate than their ideal point would

suggest, with members to the right (left) of the median regularly introducing legislation discernibly to their left (right).

This suggests that bill introductions are, for at least some members, not merely exercises in position-taking. Instead, we find evidence that *some* members are anticipating the need to satisfy moderate lawmakers, and are introducing more moderate legislation than their ideal points would imply. As an example from our data, consider deficit-reduction legislation written by a pair of Republicans in the 112th Congress (2011-2012). Fresh off of major, Tea-Party-driven gains in 2010, some legislators sought to maintain electoral momentum by proposing dramatic fiscal cuts. One such legislator, Rep. Kevin Brady (R-TX), proposed H.R. 235 in the first few days of the 112th Congress—a bill which, among other things, would require all federal agencies to reduce their employee count by 10 percent in less than 10 years. Unsurprisingly, our estimation procedure indicates that such a bill stood little chance of passing through Congress, even if it had been brought up for a vote. Conversely, Rep. Tom Cole's (R-OK) H.R. 358 sought to "reduce federal spending and the deficit" by repealing taxpayer financing for presidential elections—a fund that was both modest and already declining in importance. Our method scored this legislation as passable, consistent with its clear differences from legislation like Brady's.

As Woon (2008) argues, lawmakers in a position to exercise or benefit from agenda-setting powers should be the members most likely to offer more moderate proposals, like that offered by Rep. Cole. Bills written by such legislators are more likely to come up for consideration and thus will need to satisfy moderate lawmakers to pass. For our purposes, our measure is therefore further validated to the extent that it finds that proposals introduced by members with higher agenda priority are more likely to be moderate. To test our measure along this dimension, we compare the locations of bills introduced by members identified by Woon (2008) as having higher vs. lower agenda priority.

The first such comparison is between majority and minority members. As the majority party has substantial negative and positive agenda power in both chambers of Congress (Den Hartog and Monroe 2011; Peress 2013; Cox and McCubbins 2005), there is reason to expect that majority party members generally will have higher agenda priority. This leads us to expect that majority party members will offer more moderate proposals than minority party members, all else equal. The second comparison is between members who chair a committee or subcommittee and those who do not. Though there

are constraints on chairs' agenda-setting ability, it is still the express power of committee leaders to determine which proposals come under their committee's consideration. Indeed, during markup of legislation in committee, the first amendment to a bill under consideration is often the committee chair's substitute, full-text replacement for the bill (the so-called "chair's mark"). Thus, committee chairs exercise meaningful agenda-setting ability and thereby have "agenda priority" for their own legislation. We therefore expect committee or subcommittee chairs' legislation to be more moderate than other members'.

Figure 5 overlays kernel densities of proposal estimates for bills authored by members of different agenda priorities, comparing proposals of high (majority party members or committee or subcommmittee chairs) and low (minority party or rank-and-file members) levels of agenda priority. In top panel, members of the majority are compared to members of the minority, while the bottom panel compares committee leadership to non-chairs. In both cases, we would expect members with higher agenda priority to introduce more moderate legislation on average, reflected in proposal locations closer to the median legislator's ideal point. We find that both panels exhibit distributions in a manner replicating Woon (2008). In the upper facet, majority party members tend to introduce more moderate proposals on average, while minority party members' proposals are less moderate on average. In the lower facet, committee and subcommittee chairs more frequently introduce proposals near the median legislator. Thus, our measures of proposal location not only replicate previous findings that members introduce bills off of their ideal points, but also correctly replicate *which* members do and in what direction. The negative association between proposal extremism and majority party status of the sponsor is consistent when we condition on a variety of factors including the ideological location of the sponsor, as shown in results from the second stage of the selection model in Table 2 in the SI.

Using Bill Positions to Understand Proposal Strategies of Effective Lawmakers

The above results provide useful evidence regarding the construct validity of our measurements. Thus validated, we now use our new set of jointly scaled ideal points, bill locations in an original investigation of two related phenomena. First, consistent with previous theoretical expectations, we demonstrate

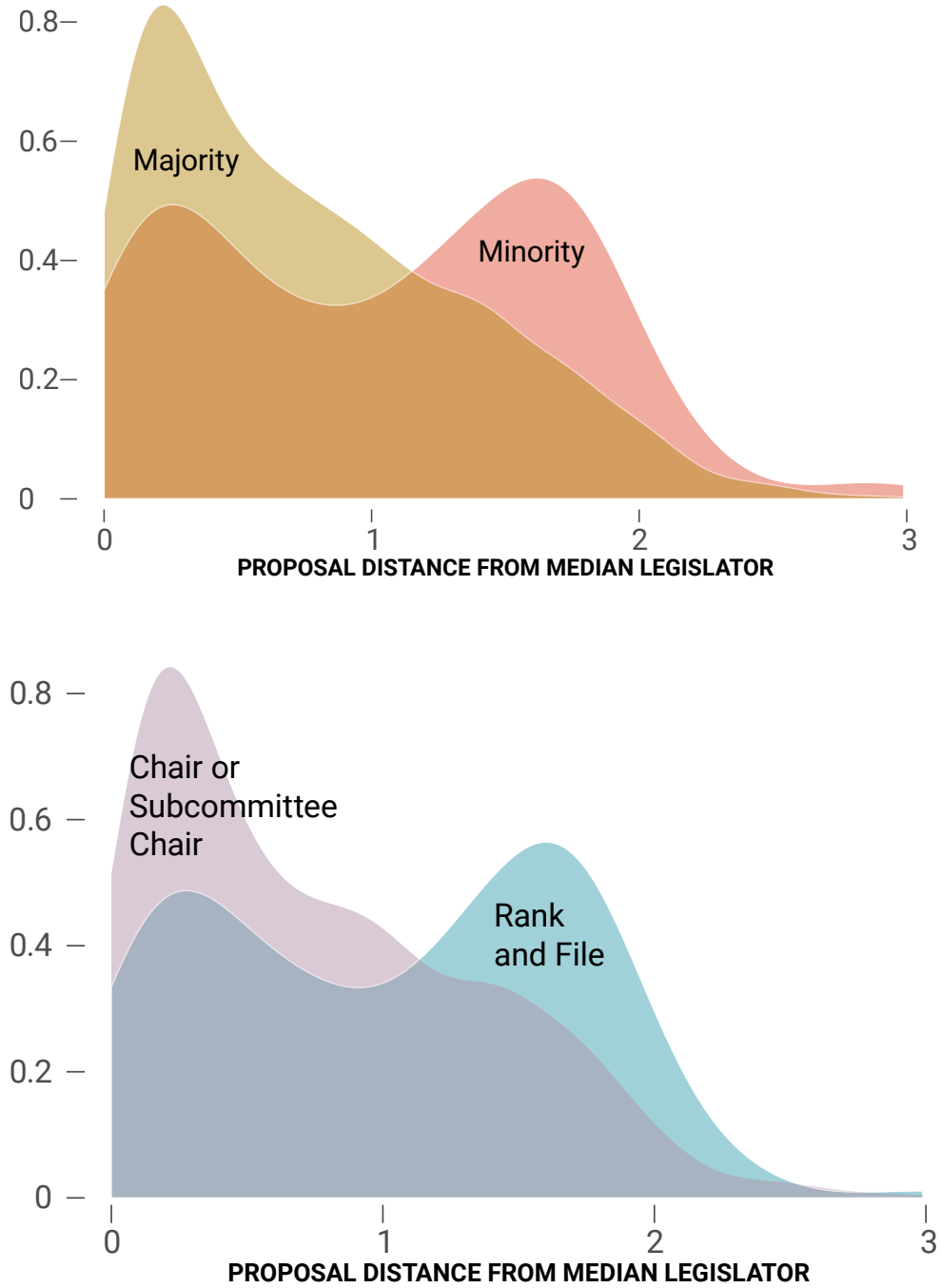


Figure 5: **Majority Party Members, Committee Leadership Introduce More Moderate Legislation**

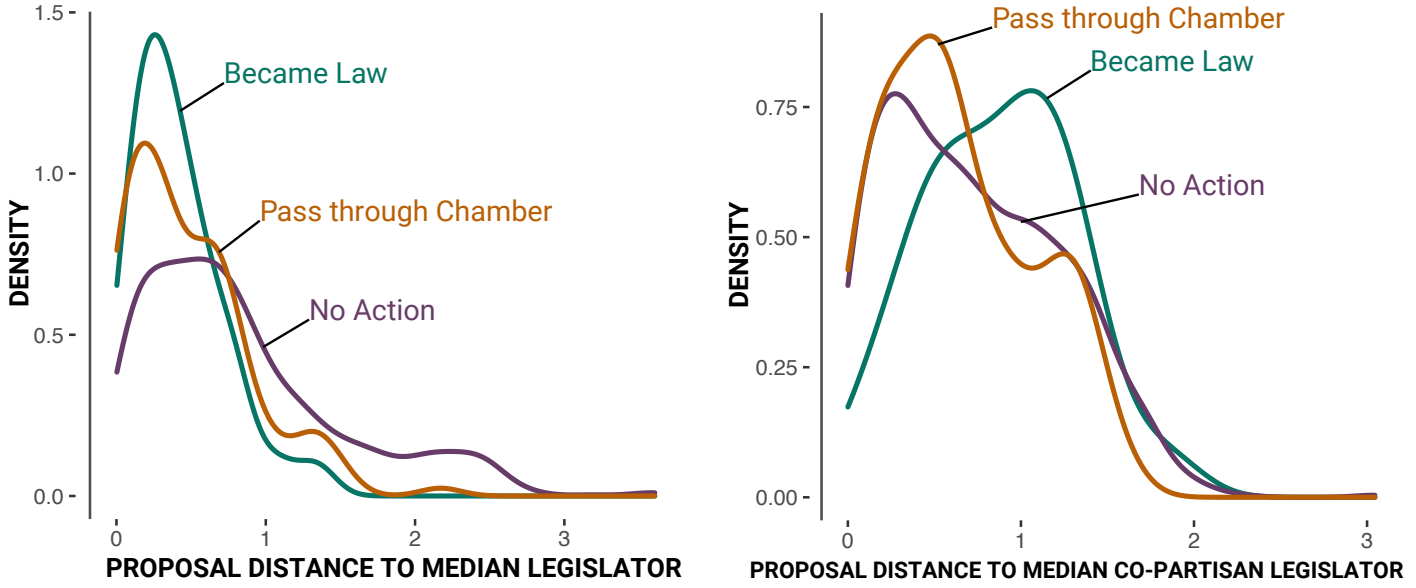
Notes: *X-axis represents distance between legislator's proposed legislation and the median legislator ideal point in the dataset. Top panel compares majority members to non-majority members (N = 1007) and bottom panel compares committee and subcommittee chairs to committee and subcommittee ranking members (N = 772).*

that legislative advancement winnows out extreme proposals. Second, we show that, anticipating this winnowing process, the most effective lawmakers in Congress introduce systematically more moderate bills, which are further from their ideal points—effectively trading some level of alignment with their ideal policy for a higher probability of legislative advancement. Whereas previous examinations of effective lawmaking have focused on legislators' characteristics and management choices, this examination provides some of the first empirical examination of the proposal strategies of such lawmakers, building upon theoretical advances such as those by Hitt, Volden and Wiseman (2017) and others. In addition to exploring an important set strategic choices by members of Congress, a key advantage to focusing on proposal-making strategies is their practical value to actual lawmakers. That is, while personal characteristics and institutional positions clearly provide some lawmakers with advantages over others, such characteristics and positions are generally immutable from the legislator's perspective. Individual lawmakers can, however, adjust their proposal-making strategies—rendering our findings useful to legislators who may wish to improve their lawmaking prowess.

Legislative Advancement Winnows Out Extreme Proposals

As previous studies have amply documented, the legislative process in bicameral legislatures tends to favor moderate proposals. To advance through the such legislatures, a proposal must gain the support of the pivotal legislators in each chamber. Such pivotal voters are by definition more moderate (c.f. Krehbiel 1998) than many legislators within their chamber. Thus, proposals that would move a status quo to an extreme value risk being blocked by moderate pivotal actors. Moreover, to the extent that policy status quos are moderate, pivotal actors will prefer (and thus allow to pass) proposals that are even more moderate. This is in part why political systems with many veto points in general, and bicameralism in particular, exhibit policy stability and are predicted to push policy to the center of the political spectrum (Tsebelis 2002; Tsebelis, Money et al. 1997). One should expect, then, that extreme bills in a political context with large numbers of veto players (such as the U.S. Congress) should be winnowed out over the course of the legislative process. Nevertheless, in spite of the both positive and normative importance of this prediction, measurement challenges have largely prevented empirical research from testing it.

To examine legislative winnowing in the context of our scores, we use our measurements to compare



(a) Bill advancement by proposal distance from median legislator in the chamber

(b) Bill advancement by proposal distance from medial co-partisan legislator in the chamber

Notes: *Proposal distances from dataset's median legislator, by various outcomes in Congress. N = 853 for no action, N = 120 for passing through chamber, and N = 34 for becoming law.*

Figure 6: **The Legislative Process Winnows Out Extreme Proposals**

the distribution of proposal locations for bills (a) with no advancement, (b) that passed one chamber, and (c) that became law. Based on the large body of formal models of the legislative process, we expect that bills further along the legislative process will tend to be more moderate than bills with less advancement. More precisely, proposals that advance further through the legislative process should be, on average, closer to the median legislator's ideal point.

Figure 6(a) provides clear evidence for this winnowing dynamic. Bills that passed through their chamber of origin are generally more moderate than bills that failed to receive action, and bills that became law are similarly less extreme than those that did not. Thus, in line with theoretical predictions and with recent research on the success (or lack thereof) of majority party agenda-setting in producing partisan legislative outputs on major issues (Curry and Lee 2020), moderate proposals tend to advance further in the legislative process than do more extreme pieces of legislation. Moreover, when we examine the distributions of distance of the proposal location from the co-partisan median, rather than the chamber median (shown in Figure 6(b)), we observe that bills which become law tend to be notably farther from the copartisan median than those that do not. This suggests that in order

to actually make policy, parties have to compromise from their ideal.

Effective Lawmakers Sponsor Moderate Bills Further From Their Ideal Points

As scholars of legislative effectiveness have underscored (beginning most recently with Volden and Wiseman 2014), not all legislators are equally well-positioned or skilled at understanding and navigating the legislative process in pursuit of policy goals. Indeed, a burgeoning literature on legislative effectiveness has examined it as a product of a variety of legislator characteristics and decisions, such as committee positions, staff recruitment and retention (Montgomery and Nyhan 2017; Crosson, Lorenz, Volden and Wiseman 2020), committee positions (Berry and Fowler 2018; Swift 2020; Lewallen 2020), intra-congressional resources (Clarke 2020), and other legislator and district attributes (Volden, Wiseman and Wittmer 2013; Makse 2022; Adler and Cayton 2020). While these findings suggest that some members are systematically better able to navigate the legislative process, they say considerably less about how such lawmakers fashion the *content* of their legislation itself.[19] Here, we contribute to the literature on legislative effectiveness by using our bill and status quo measurements to examine the actual proposal-making strategies that effective lawmakers undertake.

In the previous section, we found that additional stages of legislative advancement winnow out more extreme proposals. This coincides with a large literature that demonstrates that, even as partisan polarization has dominated congressional voting, congressional agenda-setting (Lorenz 2020; Krutz 2005) and policymaking (Curry and Lee 2020) favor bills able to garner broad, diverse supporting coalitions. Legislators in agenda-setting positions appear to recognize this reality and strategically introduce more moderate proposals (Woon 2008). Here, we generalize this basic intuition to all members who are interested in advancing legislation. In particular, we expect that members and experienced staffers who are interested in and successful at advancing legislation learn that moderating their proposals can render them more likely to clear various congressional winnowing hurdles. Whether because effective lawmakers may have better knowledge about the preferences of pivotal actors, more keenly appreciate the realities of congressional policymaking, face stronger incentives to realize their lawmaking goals, or are simply more intrinsically motivated to succeed with in the legislative process

[19] To be clear, a fascinating recent literature has begun to examine legislative vehicles used by effective lawmakers (Volden and Wiseman 2014; Casas, Denny and Wilkerson 2020; Eatough and Preece 2020). However, this research generally does not focus on the *content* of this legislation.

(Hall 1996; Makse 2017; Shepherd and You 2020), we argue that the most effective legislators will introduce more moderate legislative proposals than do their less effective counterparts. To be sure, some of the descriptive results we presented above suggest that this may be the case: those with higher agenda authority tend to introduce more moderate bills, and also tend to be more effective legislators. But we contend that, even controlling for such factors, especially effective lawmakers will still sponsor legislation that is more moderate—and further from their own ideal points— than will less effective lawmakers.

To examine the proposal-moderating incentives of the desire for legislative advancement, we combine our bill proposal location estimates with Volden and Wiseman's (2014) legislative effectiveness scores (LES),[20] our independent variable of interest, as well as a wide variety of legislator-level covariates from the Center for Effective Lawmaking's LES dataset. Our estimation procedure has generated proposal locations for 1,000 pieces of legislation introduced by 359 legislators for whom we also have jointly estimated ideal points (cIGScores). For this application we operationalize our dependent variable, proposal extremism/moderation, as the distance between the proposal location and the chamber median for the Congress in which the bill was introduced. In order to hold constant the relative extremity of legislators' preferences, we measure legislator extremism as the distance between a sponsor's ideal point (posterior mean) and the median ideal point in the chamber and session the bill was sponsored.

To establish the robustness of our results, we examine the association between LES and legislative moderation under a wide variety of specifications using a specification curve analysis (Simonsohn, Simmons and Nelson 2020; Rao 2020). For ease of interpretation, we standardize both LES and proposal extremism such that $\mu = 0$, $\sigma = 1$. As previous research has shown, a variety of factors have proven valuable to legislative effectiveness, and so we include these variables in all our specifications. These variables include legislator extremism, as noted above, as well as the legislative effectiveness benchmark covariates: majority party status, seniority, committee chair position, and subcommittee

[20]LES attempt to measure the legislative effectiveness, conceptualized as "the proven ability to advance a member's agenda items through the legislative process and into law" (Volden and Wiseman 2014, p. 18), of a particular member in a particular Congress. A member-Congress's LES will increase to the extent that the bills that member introduced in that Congress advance further through five stages of legislative advancement (introduction, action in committee, action beyond committee, passage in chamber of origin, and enactment into law); furthermore, advancement of significant legislation is weighted more heavily than substantive-but-not significant legislation, which is in turn weighted more heavily than commemorative legislation. Volden and Wiseman (2014) provide further details and measurement validation.

chair position. We then estimate models with all *combinations* of the the following variables: membership on a "power committee," indicator variables for whether a female, black, latinx, or a member is in majority or minority leadership, electoral vulnerability (previous election vote share), and previous state legislative experience. We also include vote percentage squared to account for potentially curvilinear relationships between electoral vulnerability and proposal extremism. Finally, we include an interaction term with previous legislative experience that captures the legislative professionalism of the state legislature within which the member previously worked.

In both the selection and operationalization of these covariates, we draw heavily upon the work of Volden and Wiseman (2014); Volden, Wiseman and Wittmer (2013). We estimate these models under a variety of fixed-effects specifications, including Congress fixed effects, member fixed effects, and no fixed effects. When we include member fixed effects we drop time-invariant legislator covariates (e.g. Black, Female). Figure 8 displays the results of these models.

The results shown in Figure 8 provide strong evidence that more effective legislators introduce more moderate proposals. Indeed, all models without member or Congress fixed effects are are statistically distinguishable from zero, with effect sizes between -.05 and -.075, and p-values less than .05 or .01 depending on model specification. This indicates that a one standard deviation increase in the legislative effectiveness score of a legislator is associated with introducing bills that are about .06 standard deviations less extreme. For reference, that distance in the ideological space of cIGScores (0.038), is about two thirds of the distance between the most conservative Democrat and most liberal Republican in the House in the 114th Congress (0.061), or one quarter of the distance between Susan Collins (R-ME) and Joe Manchin (D-WV), (0.159).

These results are robust to the inclusion of Congress-level fixed effects, where all models produce estimates that remain statistically distinguishable from zero at conventional levels, shown in green ($p < .05$) in Figure 8. Finally, the inclusion of Member level fixed effects does not change the substantive magnitude or direction of our estimated relationship between effectiveness and moderate proposals, but the estimates are considerably less precise (shown as black dots in Figure 8), and thus no longer statistically distinguishable at conventional levels. This loss of precision is not surprising, however, because most of the variance in our dataset exists between rather than within members, due to relatively short temporal coverage of the dataset and limited number of bills per member.

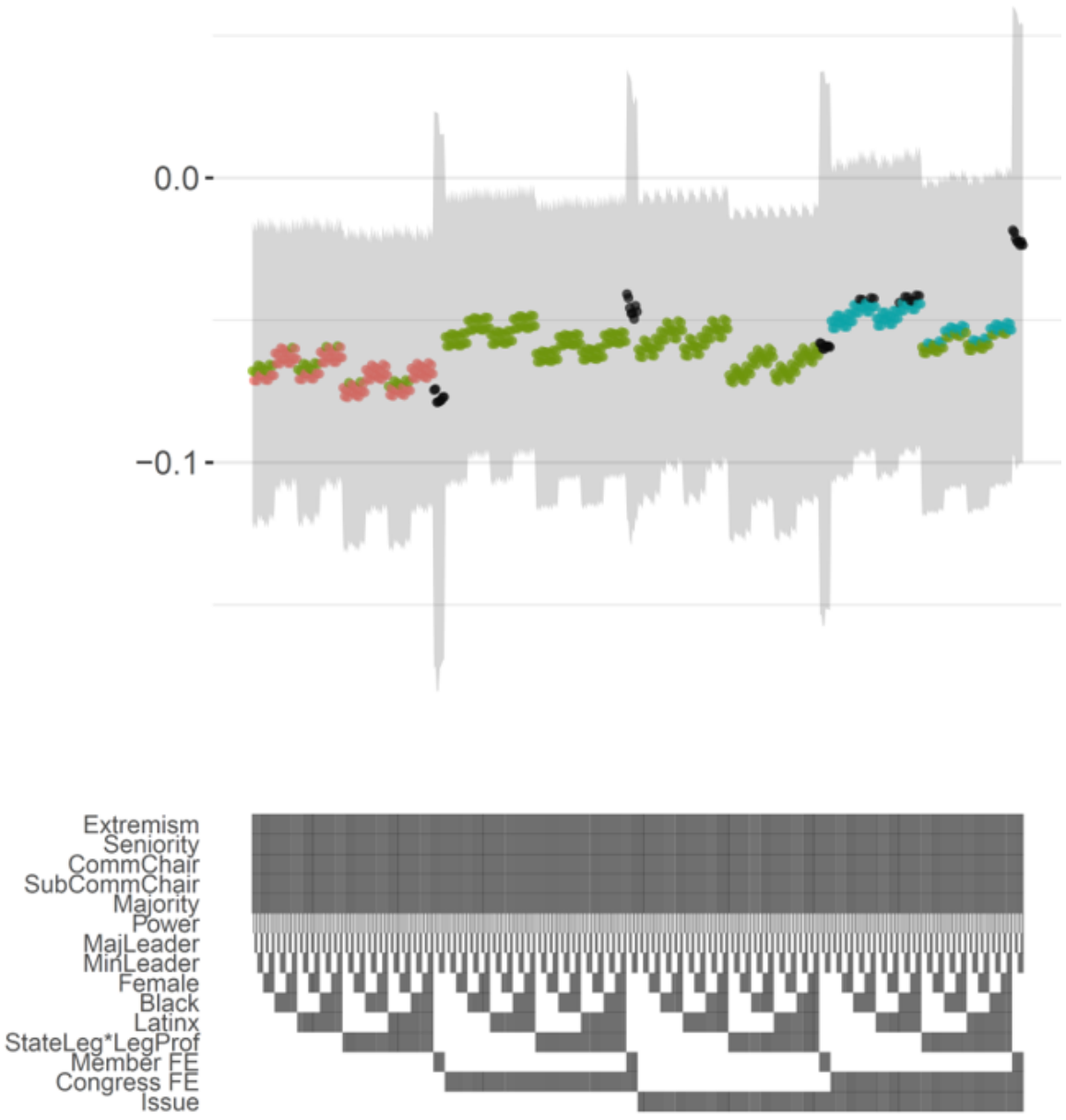


Figure 8: **Specification Curve for Legislator Effectiveness on Proposal Extremism**

Notes: *y-axis represents coefficient estimates of the marginal effect of legislator effectiveness (LES) on bill proposal extremism from a series of ordinary least squares regression models with permuted sets of covariates. Each dot represents a single model specification, with its unique set of covariates indicated below. Circles representing coefficients with* $p < 0.01$ *are red,* $p < 0.05$ *are green,* $p < 0.10$ *are blue, and those with* $p \geq 0.10$ *are black.*

Moreover, given the short time period and limited number of Congresses, the data also exhibit little within-member variance in legislative effectiveness scores. That the results are as stable as they are, despite these limitations, is indicative of the overall robustness of the association we have uncovered.

One strategy for effective lawmaking may be a willingness to trade some degree of alignment with one's ideal policies in exchange for a higher probability of enactment. Not only do we find that more effective legislators introduce more moderate bills, we also find that they introduce bills that are further away from their own ideal points, using the same specification strategy described above. Figure 9 displays the specification curve for the relationship between legislator effectiveness and the distance between legislators' ideal points and the locations of the bills the sponsor. We observe consistently positive effects—more effective legislators introduce bills more distant from themselves—across all specifications, with results that are statistically distinguishable from zero in all fixed effects specifications. The results are substantively the largest in specifications with both member and Congress fixed effects.

In these models, an increase in one standard deviation in LES score is associated with bill sponsorships that are about 0.14 standard deviations farther away from their ideal point than the average legislator. Practically, this works out to a distance of 0.067 in the cIGscore common space, equivalent to about 43 percent of the difference between Joe Manchin and Susan Collins. This is compelling evidence that effective legislators are introducing not simply more *moderate* bills, but that they they are doing so strategically at the expense of policy proposals more directly in line with their own preferences.

Discussion and Conclusions

This article examines how legislators adapt the bills they introduce to facilitate legislative advancement. Previous scholarship on bill introduction has argued that it allows legislators to take positions on issues important to their voters and campaign donors as a costly signal of preference alignment (Rocca and Gordon 2010; Sulkin 2005, 2009). Here, we examine how legislators calibrate the ideological underpinnings of their legislation, both in the status quos they target and the proposals they make. To do so, we generate and validate a measure of proposal and status quo locations for over a thousand bills introduced in five recent Congresses. In particular, our measure augments the roll-call votes

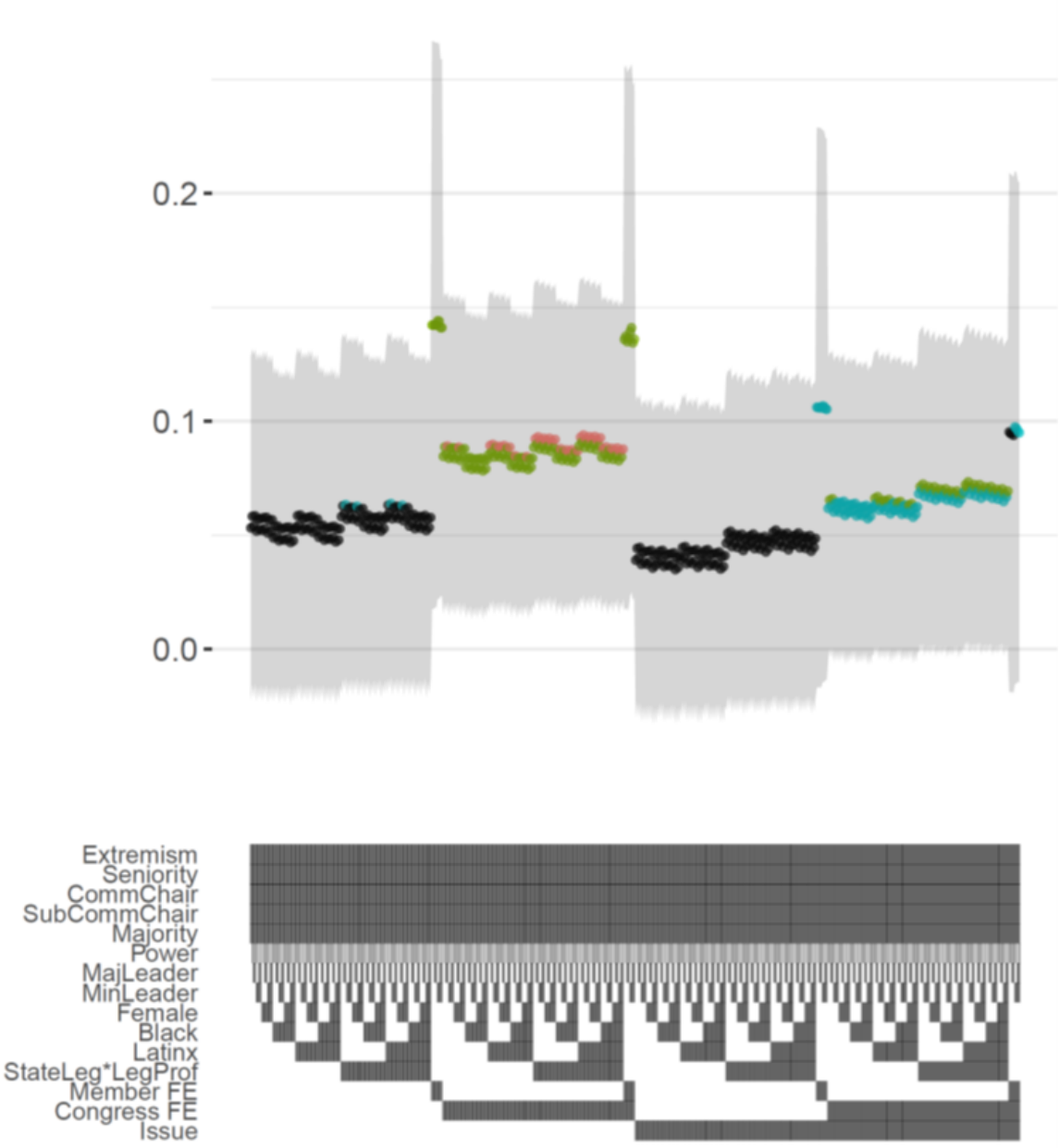


Figure 9: **Specification Curve for Legislator Effectiveness on Distance Between Legislator Ideal Point and Proposal Location**

Notes: *y-axis represents coefficient estimates of the marginal effect of legislator effectiveness (LES) on the distance between a legislator's ideal point and the proposals they introduce from a series of ordinary least squares regression models with permuted sets of covariates. Each dot represents a single model specification, with its unique set of covariates indicated below. Circles representing coefficients with* $p < 0.01$ *are red,* $p < 0.05$ *are green,* $p < 0.10$ *are blue, and those with* $p \geq 0.10$ *are black.*

and cosponsorship information used in prior efforts (most directly, Peress 2013) with interest groups' public positions on bills, enabling measurement of proposal and status quo estimates for federal bills that both did and did not receive a roll-call vote for the first time.

This measure allows us to perform direct tests of several longstanding theoretical expectations. We show that members often target status quos on the other party's side of the median legislator with proposals that, while moving the policy in their preferred direction, are still more moderate than their own ideal point. This runs counter to a pure position-taking strategy to the extent, as is often the case, that constituents and donors tend to have extreme preferences on the issue areas that are most salient to them. We argue that some members nonetheless moderate proposals because it facilitates legislative success. In particular, while prior work had shown that more moderate bills were more likely to advance in Congress, our joint scaling of legislators and proposals allows us to directly test for the first time whether the U.S.'s bicameral system winnows out extreme legislative proposals; indeed, it does. Finally, while we replicate Woon's (2008) finding that members in agenda-setting positions are more likely to introduce moderate legislation, we further show that even controlling for this dynamic, highly effective members are more likely to introduce moderate bills that are often further from their ideal points. This suggests that proposal moderation is a habit, if not a strategy, of highly effective legislators. Together, these findings integrate several disparate strands of research on bill introduction, proposal moderation, bargaining, and other aspects of legislative strategy.

This analysis represents a more precise and systematic test of the implications of several important theories of congressional lawmaking than has previously been possible. However, the proposal and status quo estimates we introduce here have the potential to contribute more broadly to a wide array of analyses of congressional politics and legislative strategy beyond what could fit in this manuscript. In doing so, there are at least three critical areas where more data collection—covering more bills, more interest groups, and further back in time—could yield significant additional insights. First, building on recent work that has suggested aspects of multidimensionality of congressional legislation (Aldrich, Montgomery and Sparks 2014; Crespin and Rohde 2010; Roberts, Smith and Haptonstahl 2016), future data collection may identify additional legislative dimensions, perhaps corresponding to issue areas or committee jurisdictions, that provide a more nuanced depiction of status quo targeting and proposal-making strategy. Second, historical interest group position-taking data could expand

these scores further backward in time, and thus allow them to speak to broader questions about proposal patterns and agenda-setting under the strong committee leadership of the mid 20th Century, relative to today's strong party leadership. Finally, there is a growing literature examining the text content of bills, including both the policy tools used (Lauterbach 2020) and the reuse and packaging of smaller bills into larger packages (Wilkerson, Smith and Stramp 2015; Casas, Denny and Wilkerson 2020; Ballard 2022). Our method could contribute to this literature by, for example, examining the policy tools favored at different points of the ideological spectrum or whether omnibus bill constructors strategically incorporate legislation to move the proposal location of the omnibus package. These and similar increases in scope will require more extensive interest group position-taking data collection, but we believe the expansion is integral for understanding the dynamics of policymaking across different eras in Congress. Our hope is that future scholarship recognizes this potential and builds upon the work we present here.

As the scope of these measures continues to increase, they can both reveal and help address many puzzles in legislative studies. To demonstrate this broad utility, we consider three potential applications here. The first concerns representation. Compared to general election voters, primary voters more consistently reward legislative effectiveness (Barber and Schmidt 2019; Treul, Thomsen, Volden and Wiseman 2022). However, marginal members–concerned about their general election constituency–most frequently promote legislative accomplishments (Grimmer 2013); moreover, as we show here, legislative effectiveness is associated with advancing centrist bills further from one's own ideal point. Thus, extreme voters reward extreme lawmakers for advancing centrist legislation that those lawmakers are less likely to promote. Potential explanations might be grounded in their bills' valence characteristics (Hitt, Volden and Wiseman 2017) or in the status quos they target (Egan 2014). Second, our scores can clarify forces shaping legislative policymaking. For example, if campaign contributions "buy" outcomes (Grossman and Helpman 1992; Denzau and Munger 1986), this effect should be clearest when comparing bills that, based on their compatibility with pivotal legislators' preferences, are unexpectedly blocked or advanced to similarly located bills that obtained predicted outcomes. Analogous comparisons could distinguish majority party bills intended to fail for partisan messaging purposes (Lee 2016; Gelman 2017) from those seeking the bipartisanship that characterizes much enacted legislation (Curry and Lee 2020). Finally, many aspects of legislative politics–e.g.,

organization (Maltzman 1998), behavior (Volden and Wiseman 2014), partisan conflict (Mayhew 1991; Howell, Adler, Cameron and Riemann 2000; Clinton and Lapinski 2006; Atkinson 2017), and policy entrepreneurship (Grossmann 2014)–distinguish significant, salient bills–usually operationalized through journalistic coverage or historical accounts–from those that remain publicly obscure. Our scores can help clarify which bills become salient, and what makes them so. Broadly, our measure joins other recent efforts to quantitatively characterize bill content (e.g., Lauterbach 2020; Ballard 2022). Where other methods address bills' policy language, ours emphasizes political strategy in status quo targeting and proposal placement.

In sum, the extensions and applications we have reported here demonstrate the validity and usefulness of jointly scaled ideal points, status quo and proposal locations for Congress to questions of partisan gatekeeping, members' propensities to offer moderate proposals, and the trade-off between position-taking and policy-making within the bill-writing process. Regardless of the specific application, however, we believe our approach harnesses and builds upon strengths from several previous measures of bill proposal and status quo locations, generating bill-level data that provide legislative scholars flexibility for studying a wide range of features of the policymaking process.

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Pivots or Partisans? Proposal-Making Strategy and Status Quo Selection in Congress

Online Supplemental Appendix

Contents

A Model Statement and Estimation Code

Below, we present the JAGS code used the generate our bill, legislator, and interest group scores. Code for generating, cleaning, and filtering the underlying data is available upon request.

```
response <- m1
response_c <- m2



y <- response[,1:ncol(response)]
z <- response_c[,1:ncol(response_c)]

N <- nrow(response)
N

# set total number of items for the latent trait model
K <- ncol(y)
K



#
# ------------------------------------------------------------------------ #
# Define JAGS model statement
View(groups1)
MODEL <- "

model{
for(i in 1:N){
for(j in 1:K){
```

```
y[i,j] ~ dbern(pi[i, j])
logit(pi[i,j]) <- beta[j]*theta[i] + alpha[j]

z[i,j] ~ dbern(qi[i,j])
logit(qi[i,j]) <- (-w[i]-q[j] - rho*pow((p[j] - theta[i]), 2))
}
}

## Priors

# for identification purposes
theta[4645] ~ dnorm(0,1)T(,0)
theta[4655] ~ dnorm(0,1)T(0,)

for(i in 1:4644){
theta[i] ~ dnorm(0, 1)
}
for(i in 4646:4654){
theta[i] ~ dnorm(0, 1)
}
for(i in 4656:N){
theta[i] ~ dnorm(0,1)
}

for(i in 1:N){
w[i] ~ dnorm(0,1)
}

for(j in 1:K){
```

```
alpha[j] ~ dnorm(0, .04) # priors the same as pscl::ideal
beta[j] ~ dnorm(0, .04)
q[j] ~ dnorm(0,1)
p[j] ~ dnorm(0,1)
}

rho ~ dunif(0,1)

}"

# ------------------------------------------------------------------------ #
# write the file as a temporary name to then read in
write(MODEL, file="MODEL.bug")


# ------------------------------------------------------------------------ #
# create initial values for the latent variable model


# use ML scores for priors
groups1 <- groups1[order(as.numeric(groups1$group_index)),]

inits.function <- function(chain){
  return(switch(chain,
                "1"=list(theta=groups1$scores, beta=results_betas$Discrimination.D1, q = rnorm(K),
                alpha=results_betas$Difficulty, rho = runif(0,1), p = runif(K), w = rnorm(N)),
                "2"=list(theta=groups1$scores, beta=results_betas$Discrimination.D1, q = rnorm(K),
                alpha=results_betas$Difficulty, rho = runif(0,1), p = runif(K), w = rnorm(N)),
                "3"=list(theta=groups1$scores, beta=results_betas$Discrimination.D1, q = rnorm(K),
```

```
              alpha=results_betas$Difficulty, rho = runif(0,1), p = runif(K), w = rnorm(N))#

  )
  )
}



save.image(file='jagsprep.RData')
# ------------------------------------------------------------------------ #
# generate variables to pass to JAGS
CHAINS <- 3
ADAPT <- 200
BURNIN <- 5000
DRAWS <- 50000
THIN <- 50

# set model file for JAGS model call
MODEL.FILE <- "MODEL.bug"



# ------------------------------------------------------------------------ #

m <- jags.model(file=MODEL.FILE, data=list("y"=y, "z"=z, "N"=N, "K"=K), n.chains=CHAINS,
n.adapt=ADAPT, inits = inits.function)

update(m, BURNIN)
M <- coda.samples(m, DRAWS, variable.names=c("theta", "alpha", "beta","q", "p", "rho", "w"),
THIN)
```

```
save.image(file="postrun.RData")


# ------------------------------------------------------------------------ #
# process JAGS estimates


load("postrun.RData")


mat1 <- as.matrix(as.mcmc(M[[1]]))
mat2 <- as.matrix(as.mcmc(M[[2]]))
mat3 <- as.matrix(as.mcmc(M[[3]]))
posterior_estimates <- rbind(mat1, mat2, mat3)


parameter.mean <- apply(posterior_estimates, 2, mean)
parameter.sd <- apply(posterior_estimates, 2, sd)
```

B Sample of Scored Bills; Selection Models

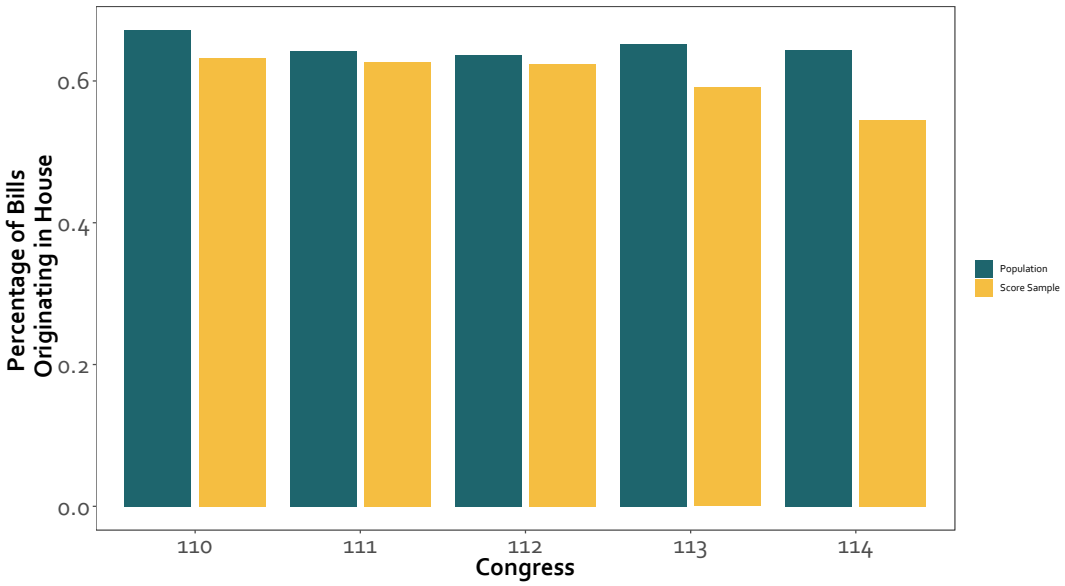

Figure 1: **Chamber of Origination, by Congress**

Notes: *Percentage of bills originating in the House, for all introduced bills (blue) and bills in our sample (yellow). Both overall and Congress-by-Congress percentages are similar between the population of bills and our sample.*

	Dependent variable:			
	scored			
	(1)	(2)	(3)	(4)
Sponsor Ideology	0.005***	0.005***	−0.004	0.035
	(0.001)	(0.001)	(0.023)	(0.031)
Sponsor Seniority	0.0003***	0.0004***	−0.002	−0.001
	(0.0001)	(0.0001)	(0.001)	(0.001)
Sponsor in Majority	0.011***	0.012***	0.094***	0.077**
	(0.001)	(0.001)	(0.035)	(0.036)
Bill Reported from Committee	0.033***	0.032***	−0.069***	−0.067***
	(0.002)	(0.002)	(0.022)	(0.021)
Bill Passed Chamber	−0.003	−0.001	−0.077***	−0.066***
	(0.002)	(0.002)	(0.022)	(0.022)
Chamber of Origin	−0.001	−0.001	0.003	0.009
	(0.001)	(0.001)	(0.025)	(0.025)
Civil Rights & Liberties	0.031***	0.029***	0.108*	0.120**
	(0.004)	(0.004)	(0.062)	(0.061)
Health	0.002	0.002	0.157***	0.170***
	(0.003)	(0.003)	(0.051)	(0.050)
Agriculture	0.022***	0.023***	−0.075	−0.060
	(0.004)	(0.004)	(0.069)	(0.068)
Labor & Employment	0.021***	0.021***	0.178***	0.184***
	(0.004)	(0.004)	(0.068)	(0.067)
Education	−0.005	−0.005	0.116*	0.125*
	(0.003)	(0.003)	(0.066)	(0.065)
Energy	0.008**	0.007**	0.115	0.138*
	(0.004)	(0.004)	(0.077)	(0.076)
Environment	0.004	0.004	0.086	0.093*
	(0.003)	(0.003)	(0.056)	(0.055)
Immigration	0.026***	0.026***	0.174**	0.202***
	(0.004)	(0.004)	(0.076)	(0.074)
Transportation	0.001	−0.0004	0.025	0.043
	(0.004)	(0.004)	(0.060)	(0.059)
Law, Crime, Family Issues	−0.001	−0.002	0.086	0.111*
	(0.003)	(0.003)	(0.065)	(0.064)
Social Welfare	−0.007*	−0.008**	0.003	0.035
	(0.004)	(0.004)	(0.080)	(0.078)
Comm. Dev. & Housing	−0.006	−0.005	−0.005	0.033
	(0.005)	(0.005)	(0.114)	(0.112)
Banking, Finance, Domestic Comm.	0.017***	0.017***	0.133***	0.138***
	(0.003)	(0.003)	(0.050)	(0.050)
Defense	−0.013***	−0.013***	−0.059	−0.039
	(0.003)	(0.003)	(0.048)	(0.048)
Space, Science, Tech, Comms.	0.008*	−0.062	−0.003	
	(0.005)	(0.005)	(0.073)	(0.072)
Foreign Trade	−0.011***	−0.009***	−0.036	−0.011
	(0.003)	(0.003)	(0.070)	(0.069)
Int. Affairs & Foreign Aid	−0.013***	−0.014***	−0.027	−0.019
	(0.004)	(0.004)	(0.064)	(0.062)
Government Operations	−0.001	−0.002	−0.048	−0.041
	(0.003)	(0.003)	(0.048)	(0.047)
Public Lands & Water Man.	−0.016***	−0.015***	−0.117	−0.112
	(0.003)	(0.003)	(0.075)	(0.073)
Arts & Entertainment	−0.016	−0.017		
	(0.023)	(0.023)		
Constant	0.001	−0.016***	0.140**	−0.035
	(0.003)	(0.003)	(0.056)	(0.062)
Congressional FEs		✓		✓
Observations	59,391	59,391	1,239	1,239
Adjusted R^2	0.017	0.022	0.082	0.119
Residual Std. Error	0.127 (df = 59364)	0.126 (df = 59359)	0.335 (df = 1213)	0.329 (df = 1208)
Note:				*p<0.1; **p<0.05; ***p<0.01

Table 1: **Full Models of Selection Into Scoring Procedure**

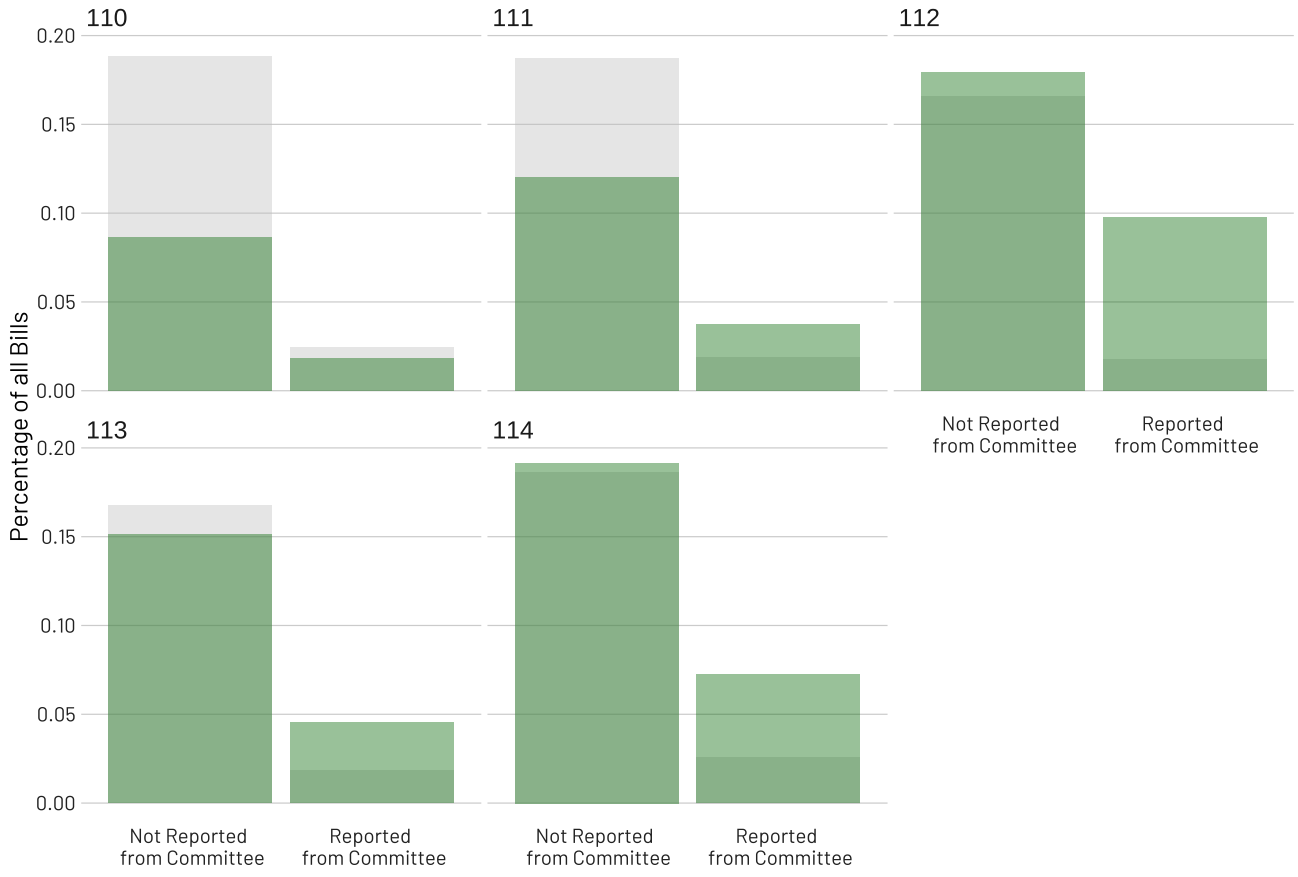

Figure 2: **Report from Committee, by Congress**

Notes: *Percentage of bills that that were reported from committee, for both the population of bills (grey) and those in our sample (green). Within-congress percentages represent the percentage of* ***all*** *bills in the entire 5 congresses.*

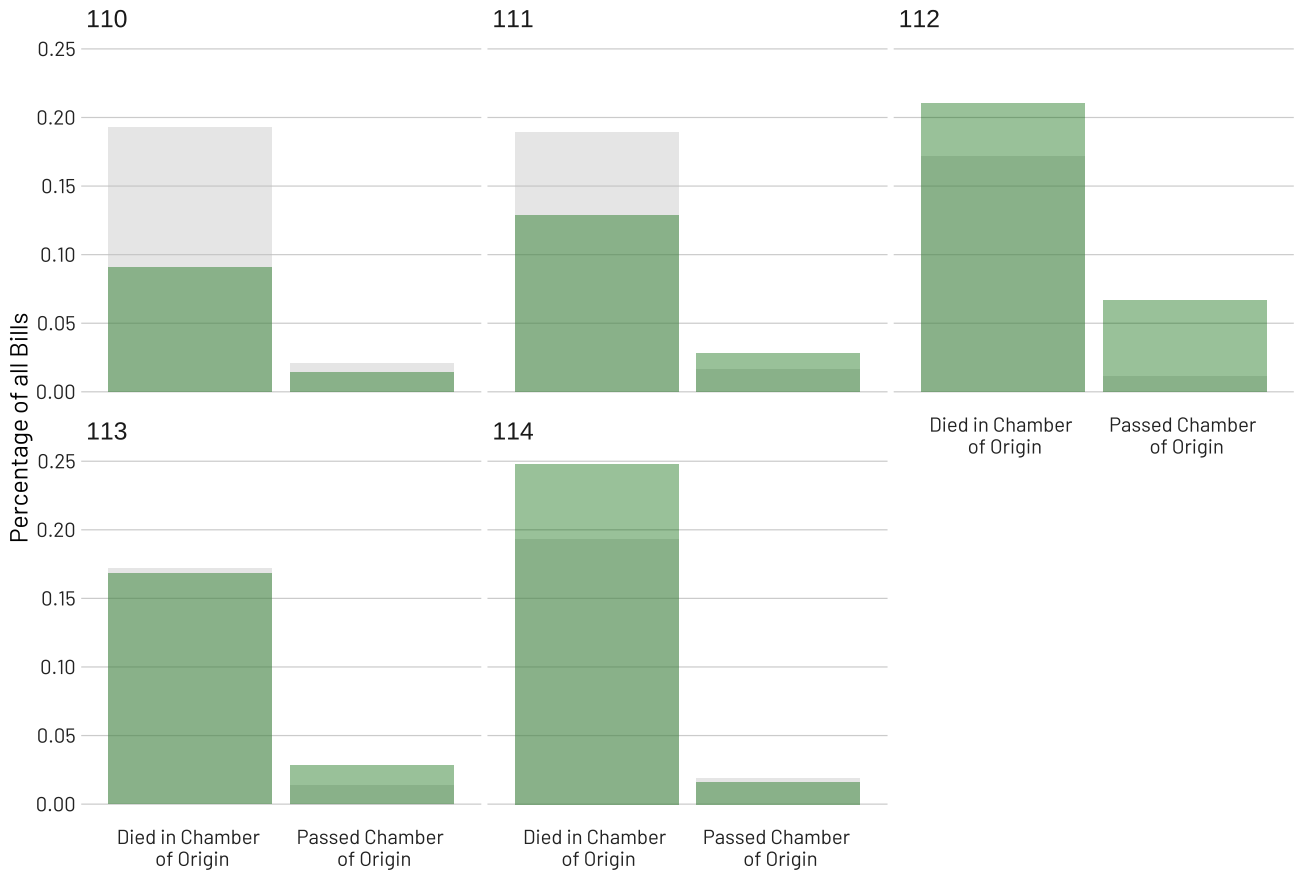

Figure 3: **Passage through Chamber, by Congress**

Notes: *Percentage of bills that passed through their chamber of origin. Percentages are inclusive of bills that progressed further than passage through the chamber (i.e., a bill that passed through both chambers and became law is counted both as passing through the chamber of origin. All bills in grey, scored bills in green.*

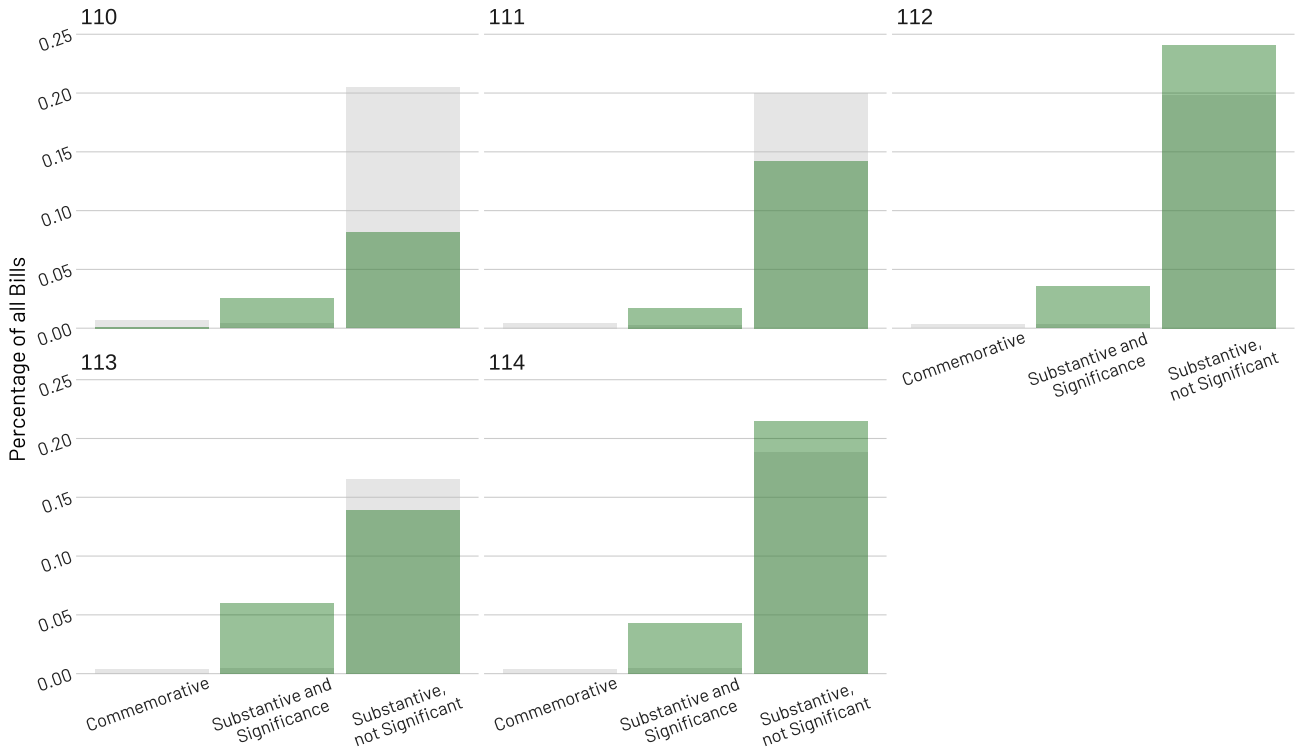

Figure 4: **Percentage of Significant Bills, by Congress**

Notes: *Percentage of bills that were classified as "Substantive and Significant," "Substantive but not Significant," and "Commemorative" by Volden and Wiseman's (2014) criteria. All bills in grey, scored bills in green.*

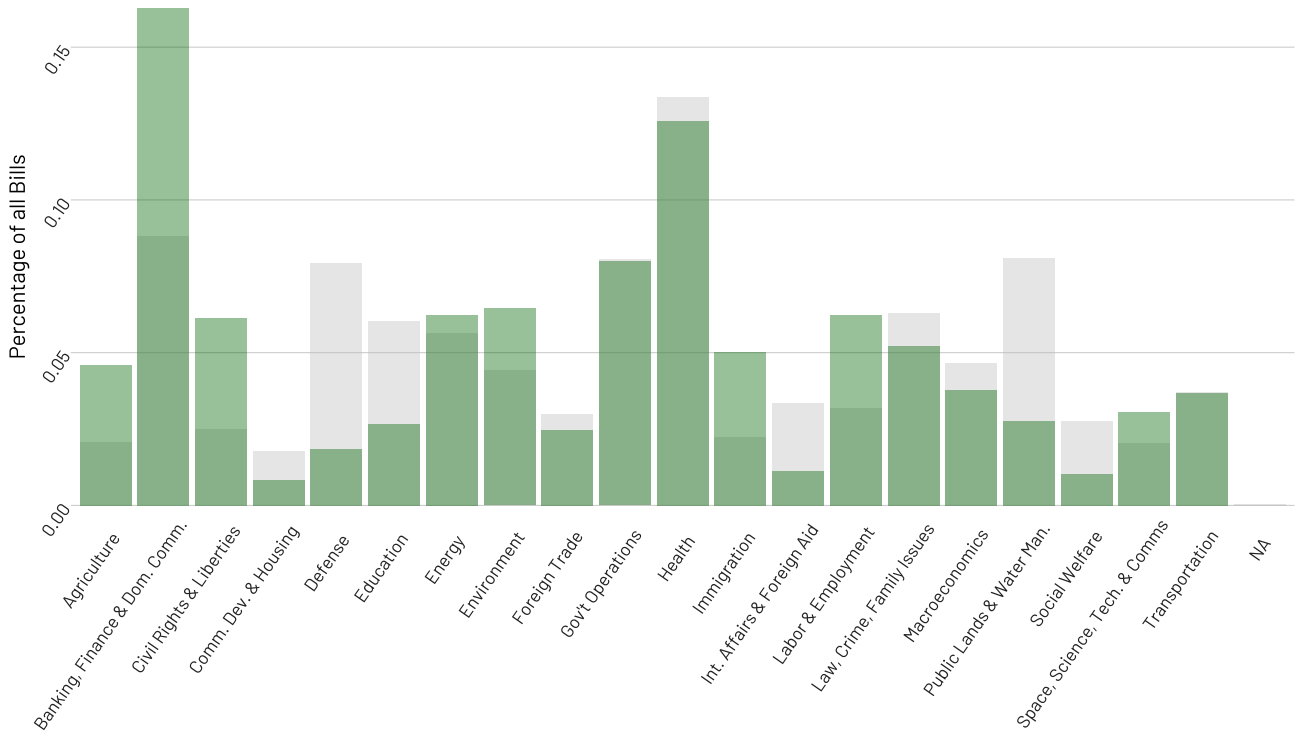

Figure 5: **Percentage of Bills by Major Issue Area**

Notes: *Percentage of bills classified within each of the Policy Agenda Projects' major topic codes. All bills in grey; scored bills in green.*

C Convergence

Below, we present Gelman-Rubin ($\widehat{R}$) statistics for Parameter Estimates. We omit traceplots and tables of individual parameter statistics, due to the sheer number of estimates included in our analysis. The Gelman-Rubin $\widehat{R}$ is a summary statistic that compares the ratio of the average variance within each chain to the overall variance in all chains. A ratio close to 1 indicates convergence for estimates, with below 1.10 seen as generally indicative of convergence. As the histogram indicates, the vast majority of our parameter estimates meet this criteria, though a handful do exceed 1.1. These include β, γ, and θ parameters only and constitute less than 0.4 percent of all parameters.

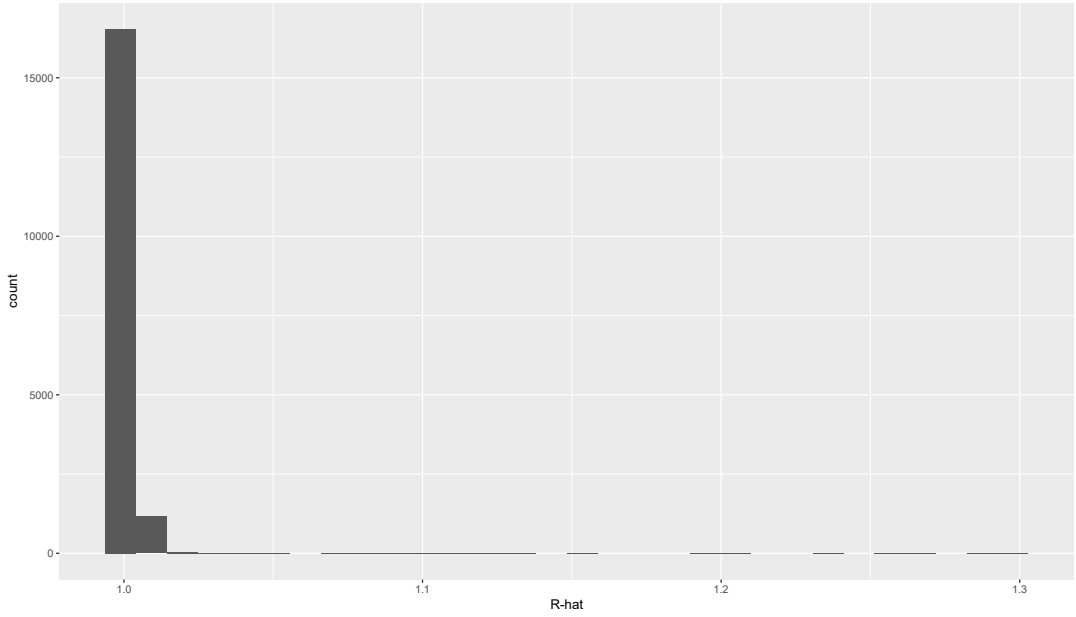

Figure 6: **Gelman-Rubin ($\widehat{R}$) Statistics for Parameter Estimates**

D cIGscore correlations with IGscores

In Figure 7, we compare cIGscores with Crosson, Furnas and Lorenz's (2020) IGscores. As the figure depicts, for both legislators (blue) and interest groups (yellow), cIGscores exhibit high Spearman correlations with IGscores: $\rho = 0.958$ for legislators, $\rho = 0.980$ for interest groups, and $\rho = 0.979$ overall. As we note in the main text, these correlations provide reassuring evidence that the cosponsorship data and bill/group sample differences are not dramatically altering the dimension recovered by our estimation procedure.

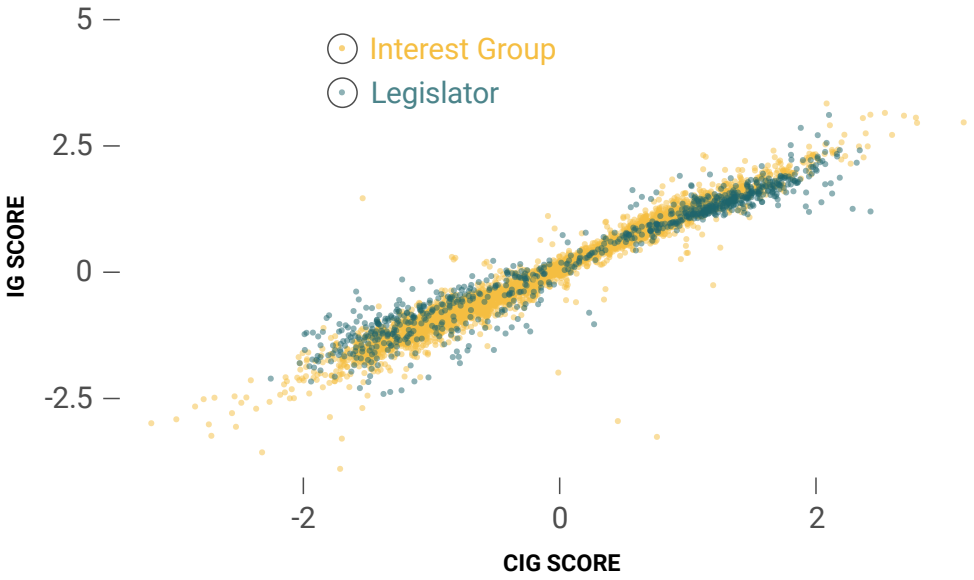

Figure 7: **cIGscores v. IGscores**

Notes: *Correlations between IGscores and cIGscores are* $\rho = 0.958$ *for legislators,* $\rho = 0.980$ *for interest groups, and* $\rho = 0.979$ *overall.*

E Robustness of Results when Accounting for Selection Effects

As we note in the main body of the paper, the sample of bills that we can measure is by no means a random sample. Indeed, in order for us to score a bill, our procedure requires a certain amount of "interest" in a bill, both from cosponsors and from interest groups. This is particularly noteworthy, given that previous literature has underscored how special interests are most likely to invest in effective legislators. As such, we execute some selection models, in order assuage the concern that our main results are driven solely by selection effects.

We believe that Heckman-style selection models provide a framework addressing for this issue. That is, we can use this approach to first specify a series of models that capture interest group and cosponsor attraction to particular bills. In the

second stage of the estimation, then, we can account for this selection and obtain residual associations between our primary independent variable of interest—Legislative Effectiveness—and our proposal extremity outcome.

More specifically, we estimate a first-stage model of whether or not a bill was scored:

$$Pr(\mathcal{S}_{it} = 1) = (\mathbf{Z}\gamma + \epsilon)$$

where $\mathcal{S}_{it}$ represents whether bill i during Congress t was scored by our procedure. $\mathbf{Z}$ captures variables influencing $\mathcal{S}_{it}$ and are drawn from Lorenz, Furnas and Crosson (2020) and Volden and Wiseman (2014). These variables, we include bill-specific information (importance, type, number of cosponsors, and so on) and sponsor characteristics (taken from the Center for Effective Lawmaking's "benchmark" models). Note, however, that we do not use the bill-progress variables found in By estimating this model, we are then able to estimate the following modified specification of our base model:

$$\mathcal{P}_{it}|\mathcal{S} = 1 = \mathbf{X}\beta + r\sigma_u \frac{1}{h(x)}(\mathbf{Z}\gamma)$$

where $\mathcal{P}_{it}$ represents proposal extremity, r equals the correlation between ϵ and unobserved determinants u of $\mathcal{P}$, σ_u represents the variance of u, $\frac{1}{h(x)}$ represents the inverse Mills ratio, and $\mathbf{X}\beta$ captures the base model specification of proposal extremity. Below, we present the results of both portions of the estimation.

As the table depicts, the negative association between LES and proposal extremism remains significant, as it does throughout our much of our specification curve in the main text. In fact, the coefficient on *Legislative Effectiveness* is *larger* in the selection-adjusted models (0.063) than in the original unadjusted models (0.043 for the same specification). One possible reason for this differences lies directly in the literature noted above. That is, interest groups tend to focus their attention on more serious laws and more serious lawmakers. As a result, our bills are covering a specific, though quite important, subset of all bills. If the U.S. system does in fact reward moderation, and if effective lawmakers realize this, then we are testing our hypotheses on a smaller amount of variation than is available in the universe of bills (were all those bills scoreable). It stands to reason, then, that the estimates in the paper may well be conservative ones.

center

	Bill scored?
(Intercept)	−4.100***
	(0.173)
Legislative Effectiveness	0.072***
	(0.012)
Majority Status	0.334***
	(0.043)
Seniority	0.011***
	(0.003)
Chair	0.050
	(0.046)
Subcommittee Chair	−0.030
	(0.036)
Multiple Referrals	0.092***
	(0.013)
Number of Cosponsors	0.007***
	(0.0003)
Important Bill	1.198***
	(0.150)
Issue FEs?	✓
Bill Type FEs?	✓
Num.Obs.	73 739
R2	0.462
R2 Adj.	0.455
RMSE	0.73

	Prop. Extremity
(Intercept)	1.468***
	(0.179)
Legislative Effectiveness	−0.063**
	(0.019)
Sponsor Extremism	0.353***
	(0.034)
Majority Status	−0.771***
	(0.102)
Seniority	0.011*
	(0.005)
Chair	−0.157*
	(0.072)
Subcommittee Chair	−0.021
	(0.058)
Power Committee	−0.062
	(0.050)
Majority Leader	−0.057
	(0.090)
Minority Leader	0.346*
	(0.148)
Female	0.046
	(0.066)
Black	−0.226+
	(0.123)
Latinx	0.057
	(0.141)
State Leg. Prof.	0.121
	(0.135)
Num.Obs.	73 739
R2	0.462
R2 Adj.	0.455
RMSE	0.73

+ p < 0.1, * p < 0.05, ** p < 0.01, *** p < 0.001

Table 2: Two-Stage Heckmann Models for Proposal Extremism

F Estimation with Uniform Prior for p

In our main estimation, we use a typical normal-distribution prior for the proposal location parameter, p, within our model. Recognizing that that this could bias some of our more low-information bills toward more moderate estimates, we reestimated our model using a less informative prior for p: the uniform distribution, from -1 to 1. We compare the resulting ideal points and proposal location estimates below.

As the graphs underscore, though there are some differences between the estimation outputs, the estimates are largely quite correlated with our main scores—with $\rho = 0.975$ for the ideal points and $\rho = 0.966$ for the proposal locations.

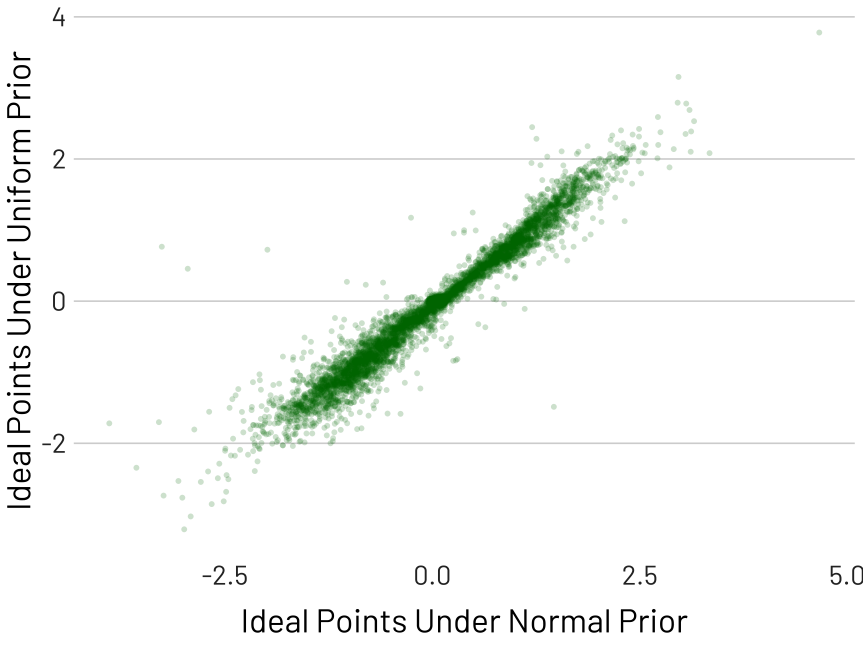

Figure 8: Ideal Point Estimates Under Uniform and Normal Distribution Priors for p

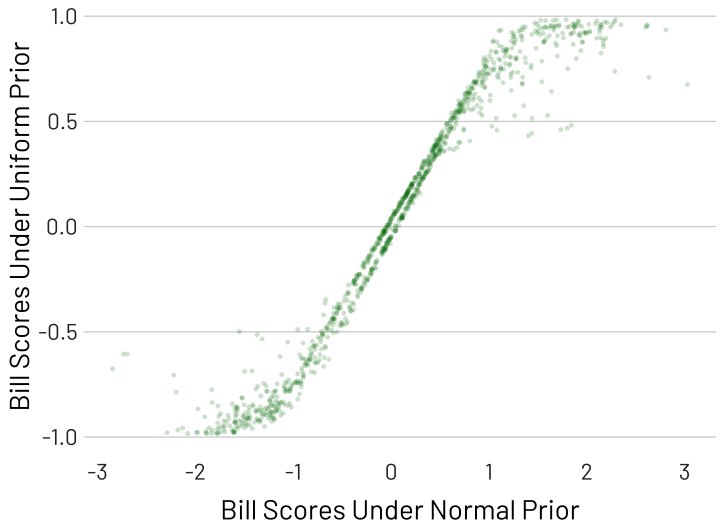

Figure 9: Bill Location Estimates Under Uniform and Normal Distribution Priors for p

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