Using Expert Evaluations to Scale Organized Interest Ideology^{*}

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Abstract

Estimates of the political preferences of organized interests are a precondition for testing many theories of democratic politics. While strides have been made in measuring interest group positions in recent years, existing estimates of group positions have two shortcomings: 1) they are derived from strategic behavior which may reveal biased estimates, 2) they have poor coverage across members of the organized interest universe, particularly among the most active organizations. In this short article, we address these issues by using responses from an original survey of lobbyists to estimate the perceived political preferences of more than 1,600 interest groups. Overall, we find that these Lobbyist Evaluation Scores (LEscores) existing measures correlate strongly with lobbyist perceptions of ideology. Further, we demonstrate the utility of our LEscores by using them to evaluate extant theories concerning how ideological distance conditions interests' campaign contributions to members of Congress. Our publicly available LEscores will help researchers answer important questions about the groups that lobby most intensively. Additionally, our findings have implications for the use of existing interest group scales and for inferences about the distribution of policy preferences in the US.

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Though they do not themselves run for office or hold formal positions in the policymaking process, organized interests feature prominently in scholarly studies of American national politics (e.g., Baumgartner et al. 2009; Schlozman et al. 2012; Wright 1996). However, though scholars often speculate that interests' strategic behavior, such the candidates and officeholders they try to lobby or to whom they donate, is informed by their preferences and ideological leanings (e.g., Austen-Smith 1995; Awad 2020; Hall and Deardorff 2006; Miller 2022; Schnakenberg and Turner 2021; You 2022), few quantitative measures of interest ideology exist at the federal level, and those few that do face important limitations in many applied research settings. First, extant ideology measures offer limited coverage of the universe of organized interests. For instance, of the 14,089 interests who lobbied at the federal level in 2020, as recorded through Lobbying Disclosure Act (LDA) reports, CFscores from Bonica (2013) and IGscores from Crosson et al. (2020) offer ideology measures for only 6.0% (844) and 8.2% (1,159) of those interests, respectively, which forces researchers whose theories invoke interest ideology to analyze small subsets or utilize coarser measures of interest preferences (McKay 2018; Miller 2023). The narrow coverage offered by CFscores and IGscores—the two most prominent sources of interest ideology scores at the federal level—stems in large part from their reliance on observed behavior such as campaign contributions and positiontaking on congressional bills, respectively; since most interests specialize in certain tactics (Tripathi et al. 2002), ideology measures based on any one tactic necessarily omit many organizations. This focus on observed behavior prompts a second fundamental limitation of extant measures: the strategic behavior used to estimate interests' ideology is often itself a focal outcome or explanatory variable. For example, research questions centered on interests' contribution behavior cannot incorporate CFscores to measure ideology because they are themselves derived from the contributions of interest. Together, these limitations forestall empirical research into many important aspects of organized interest behavior.

In this letter, we present an alternative approach to measuring organized interest ideology that addresses these limitations: utilizing evaluations of interests' ideological leanings offered by organized interest representatives. Using survey responses offered by 1,210 federal lobbyists and policy advocates, we employ hierarchical Bayesian Aldrich-McKelvey scaling (Hare et al. 2015; Marquardt and Pemstein 2021) to estimate the placement of 1,644 interests in ideological space. Because this technique depends on ratings elicited from experts rather than interests participating in specific observable behaviors, we are able to obtain Lobbyist Evaluation Scores, or LEscores, for nearly one and a half and two times as many lobbying active interests as have been scaled with IGscores or CFscores, respectively. After describing the properties and demonstrating the validity of our ideology measure, we use it to examine how interests' contributions to members of Congress are informed by their ideological proximity to those members—a long-standing research question for which few empirical analyses exist due to the aforementioned limitations of extant measures. Our approach to measuring interest ideology enables scholars to probe a broader scope of questions about interest behavior and can be easily customized by future researchers to facilitate specific queries.

Lobbyists and Policy Advocates as Expert Raters

Our evaluations of organized interests' ideological inclinations come from experts with intimate insights on the organized interest universe—the lobbyists and policy advocates (henceforth "lobbyists") who work for those interests. Political scientists often utilize expert ratings to measure the ideology and policy positions of organizations and individuals in other contexts (Bakker et al. 2015; Clinton and Lewis 2008; Hopkins and Noel 2022; Saiegh 2009) as well as to measure other latent concepts including countries' quality of democracy (Coppedge et al. 2016), presidents' degree of discretion across policy areas (Lowande and Shipan 2021), and the skill-level of agency personnel (Richardson et al. 2018). While such concepts can be difficult to measure using observable information, experts' specialized knowledge and interactions in the relevant contexts enable them to offer sophisticated perspectives on the degree to which specific objects possess a given concept (Bakker et al. 2015; Saiegh 2009). In the current context, lobbyists learn about the ideological proclivities of interests through observing their advocacy behavior, such as working together with them in coalitions and noticing the positions they advocate for on policies, as well as through interpersonal relationships developed with other lobbyists in professional settings (Leech 2014). Additionally, eliciting evaluations from experts allows them to provide holistic assessments of an object's latent trait rather than relying on a single aspect of the object's character or behavior (Bakker et al. 2015, p. 148); in the case of lobbyists, this means that they can offer well-rounded perspectives on a given interest's ideological character that encompasses the totality of their advocacy activity—both public and private—rather than selecting on a single activity in which not all interests partake and may reflect a mixture of interests' preferences as well as strategic considerations (Thieme 2020).

We obtained these expert evaluations using a survey of federal lobbyists conducted in late 2020. The 11,341 lobbyists in our sampling frame were drawn from those listed as points of contact or lobbyists on organized interests' LDA reports files between the first quarter of 2019 and the third quarter of 2020.¹ In the course of the survey, respondents were asked to indicate how liberal or conservative 10 different organized interests are on a seven-point scale. To illustrate the breadth of our approach, we scale interests from the following three categories: 1) their own client, 2) four prominent interests widely regarded as liberal or conservative, and 3) five interests randomly drawn from the 1,000 interests who reported the highest amounts

¹Please see Online Appendix Section A for more information on LDA reporting requirements and our sampling procedure and response rate.

of LDA expenditures for calendar year 2019.² The four interests all respondents were asked to rate have established ideological reputations and included two liberal interests (Center for American Progress and Planned Parenthood) and two conservative interests (Heritage Foundation and the National Rifle Association); by asking all respondents to evaluate these salient organizations, we are able to use them as anchors in our estimation procedure. Additionally, we selected additional interests to rate from the top 1,000 lobbying spenders because they are conducting some of the highest volumes of lobbying activity and therefore are more likely to be on the radar of other lobbyists and to be subjects of interest in academic studies of organized interests.

1,210 respondents evaluated the ideological placement of at least one interest other than their own client for a response rate of $\frac{1,210}{11341} \approx 10.7\%$, which compares favorable to those in other recent surveys of American political elites (e.g., Bednar and Lewis 2023; Hassell et al. 2020; Hertel-Fernandez et al. 2019; Miller 2022). In total, respondents offered 8,475 evaluations across 1,644 different interests. Importantly, 15 of our respondents were former members of Congress, which allows us to bridge our ideology estimates to a common space with NOMINATE (Lewis et al. 2023), one of the more prominent measures of congressional ideology in political science, as we describe below. This bridging allows us to assess the ideological similarity of interests to members of Congress, which is crucial for our application and many other outstanding research questions concerning organized interests' interactions with policymakers.

Scaling Interest Ideology from Lobbyist Evaluations

To scale group positions from evaluations, we use hierarchical Bayesian Aldrich-McKelvey scaling, which accommodates settings where perceptions of the location and breadth of the ideological space differ among raters (Hare et al. 2015). We simulate models of the following form:

$$y_{rg} \sim \mathcal{N}(\mu_{rg}, \tau)$$

 $\mu_{rg} = \alpha_r + \beta_r Z_g$

y is the evaluation of interest group g by rater r. Our parameter of most interest is Z, which is the estimate of the ideological position of group g as perceived by lobbyists. We place an informative prior on the evaluations

²In addition to the seven points of the ideology scale ranging from "very liberal" to "very conservative," we also provided respondents a "don't know" option for each interest in order to discourage respondents from guessing and thus offering inaccurate ratings. of the lobbyists' own clients. This is important for two reasons. First, many of the client-groups (which are rated by their hired contract lobbyist) will typically not be among the top 1,000 spenders and will have only that single evaluation. In those cases, an uninformative prior on the group position would dominate the cases where the client only gets one evaluation, and they would be scaled as very moderate. However, since the rater works for the client, we assume that she has better information about the group's position. Second, and relatedly, since the lobbyist is likely to be better informed about its own client, placing more weight on that information, when a client-group is rated multiple times (because it is a top spender), improves the estimate of the group's position. Among the top 1,000 spenders, 242 are rated by a lobbyist that currently works for them. In the baseline specification, we use as prior a normal distribution centered around the lobbyist's rating of her client with a precision parameter of 5. We show the robustness of our results to the specification of the prior in Supplemental Information Section E.

The α and β parameters estimate each rater's perceptions of the ideological space. This allows the location and scale of the ideological space to shift and stretch between raters, ultimately ensuring that all groups are located in the same space. However, individual parameters for each rater will almost certainly overfit the data, harming the performance of our scaling model. Therefore, we follow Bølstad (2023) and partially pool the α and β parameters using a hierarchical prior specification, which shrinks each set of rater-specific estimates towards their respective global means.³

We also use the α and β parameters to bridge our estimates of Z to the NOMINATE space. To do so, we take advantage of the finding in Hare et al. (2015) that raters' perceptions of the ideological space is shaped by their own ideological leaning: liberal (conservative) raters tend to view liberal (conservative) groups as more conservative (liberal) than they really are. This creates a negative correlation between the raters own ideology and the α and β parameters. We use DW-NOMINATE scores of the 15 former members of Congress who participated in the survey to model their shift and stretch parameters directly in our model. To achieve all of this, we set the following priors:

³Following Bølstad (2023) we use the following weakly informative priors on the hyperparameters: $\sigma_{\alpha} \sim gamma(2, 1.667)$, and $\sigma_{\beta} \sim gamma(2, 1)$. The latter is more constrained than the one used in Bølstad (2023), as we found that it did not change the estimates dramatically, but did lead to significantly lower computation time, as it constrained the posterior space.

$$\alpha_i \sim \operatorname{Normal}(\delta_{r,\alpha}, \sigma_{\alpha}^2)$$
$$\beta_i \sim \operatorname{Log-normal}(\delta_{r,\beta}, \sigma_{\beta}^2)$$
$$\delta_{r,\alpha} \sim \operatorname{Normal}(d_1 * DWNOM_r + d_2 * MC_r + d_3(DWNOM_r \cdot MC_r), 1)$$
$$\delta_{r,\beta} \sim \operatorname{Normal}(d_4 * DWNOM_r + d_5 * MC_r + d_6(DWNOM_r \cdot MC_r), 1),$$

where $DWNOM^4$ is the DW-NOMINATE score of the rater, r, and MC is an indicator of whether the person was a Member of Congress. This allows us to use DW-NOMINATE score of each rater-MoC to guide their estimated perception of the ideological space. Thereby, we shift and stretch the the space in which our perception scores are estimated to fit onto the DW-NOMINATE space, bridging the two sets of scales.⁵ The four anchor groups mentioned previously helps us ensure good estimates of the individual rater parameters, as they provide common groups which are rated by everyone.

Finally, τ is a homoskedastic error term. This variance assumption has the benefit of speeding up computation time significantly. While it may matter for uncertainty estimates, it will not impact the Z estimates, which are the ones we are most interested in.

Using Gibbs sampling, we simulate a random walk across the parameter space. To deal with autocorrelation, we thin the chains by only retaining one out of every three simulations. We use three chains, where (excluding the thinned out iterations) we run 3,000 iterations of burn-in followed by 2,000 simulations. In total, this implies that we run 45,000 iterations of the model. We present additional discussion of the model as well as convergence diagnostics in Supplementary Information Section B.

As a validation of our LEscores, we present in Figure 1 the pairwise correlations between our lobbyist perception measure and the two existing scales (CFscores in Panel A; IGscores in Panel B). As we can see, LEscores correlate relatively strongly with the existing scales. Thus, lobbyists perceive groups to have similar ideologies as their political behaviors would lead us to believe. This provides validation for all three approaches. However, the correlations are far from perfect, which in all likelihood comes down to two issues. First, the three approaches measure different things. While LEscores are geared towards measuring the

⁵We place weakly informative priors on the d_k parameters. d_1 and d_4 are drawn from Normal(0, 5), while the remaining d_k parameters for the former MCs are drawn from Normal(-1, 2).

⁴We place uninformative priors (unif(-3,3)) on the *DWNOM* values of all raters that are not former Members, and hence have missing values. This ensures that they are not excluded from the model, but do not add to the estimation.

overall ideology of the groups, CFscores and IGscores, respectively, are better understood as measures of stated preferences, either as communicated through campaign donations or public position-taking on bills. Second, insofar as CFscores and IGscores are thought of as measures of ideology, that they are based on strategic behavior may bias them away from interests' 'true' ideological positions (Thieme 2020).



Figure 1: Correlating CFscores and IGscores with Lobbyist Perceptions of Interest Group Preferences. **Note:** The fitted line is a LOESS smoother. Dashed, 45° line indicates perfect association. The Pearson's correlations are printed in the top-left corners of each panel.

Next, in Figure 2 we compare the distribution of LEscores to DW-NOMINATE scores of MoCs (Panel A), CFscores (Panel B), and IGscores (Panel C). As can be seen from Panel A, compared to legislators, most interest groups are quite moderate. As we show in Section of the Supplementary Information, by far most corporations (and business interests) are located in the right end of the ideological spectrum. The centrist mode among interest groups is driven mostly by non-business actors. Comparing LEscores to existing measures (Panels B and C) also yields interesting insights. Compared to CFscores, our estimates have a longer and thicker tail on the right-hand-side of the spectrum, while groups are on average more centrist in our measure compared to IGscores.

Application: Campaign Contributions and Ideological Proximity

Organized interests are thought to make campaign contributions to candidates for and holders of public office for a variety of reasons, including securing access to influential persons (Fournaies and Hall 2018; Powell and Grimmer 2016), "buying" votes on specific policies (Grier et al. 2023), and subsidizing the work of policymakers



Figure 2: Comparing the Distributions of Organized Interest Ideological Positions. **Note:** Grey distributions are LEscores scores. Panel A compares our estimates of organized interest ideology to DW-NOMINATE scores of MoCs serving in the 116th Congress. Panels B and C compares our estimates to CFscores and IGscores, respectively. When comparing organized interest scales, we only include interest groups with pairwise non-missing values.

who can help them manifest policymaking goals (Hall and Deardorff 2006). Additionally, political scientists have long argued that interests' contribution decisions are informed by the similarity of their issue-specific preferences or general ideological leanings to those of potential recipients; while interests are often thought to focus their contributions on candidates who are ideologically proximate (Fox and Rothenberg 2011; McCarty and Poole 1998; Poole et al. 1987), some have suggested that interests may donate larger sums of money to more ideologically distant candidates to compensate for their preference dissimilarity (Snyder 1991; Stratmann 1992, 1996). However, few empirical analyses of the relationship between interests' ideological proximity to candidates and their contribution behavior exist because researchers have had difficulty measuring the ideological positions of a large sample of interests and candidates in a common space without using those very contributions to estimate those positions (Bonica 2013).

We utilize our LEscores to explore the nature of the relationship between ideology and campaign contributions. Importantly, because we leveraged 15 of our respondents' service as former members of Congress to place our estimates in NOMINATE space, we can assess the ideological similarity between our interests and members of Congress on the same scale. To do so, we calculate the absolute distance between the ideology score of each of our 692 interests active in the 2019-20 and 2021-22 campaign cycles and the NOMINATE scores for each sitting member of the House and Senate during the concurrent congresses.⁶ We pair these distances with information collected from the Center for Responsive Politics' compilation of Federal Election Commission (FEC) campaign finance data indicating whether and how much money each interest contributed to each member during each two-year period. Of our 729,642 interest-member-cycle triads, only 112,740 (15.5%) witness any contribution made by the interest to the member during a given cycle, with an average donation amount among non-zero observations of \$670. In light of the large proportion of \$0 donations, we use zero-inflated negative binomial (ZINB) regression, which accounts for interests' sequential decisions to first donate to each member and, conditional on donating, then deciding the amount to donate.

Figure 3 presents predicted quantities from two components of our ZINB model across the range of interest-member ideological distance: 1) the predicted probability that the interest does not donate to the member (Panel A); 2) the predicted number of dollars the interest donates to the member once adjusting for zero-inflation (Panel B). To account for the possibility that the relationship between ideological distance and contribution behavior is curvilinear, such that distance may have larger or smaller effects on contributions as it increases, we include both absolute distance and squared absolute distance as our explanatory variables.⁷

⁶We restrict our analyses to the campaign cycles immediately preceding and following our survey because interests' ideological proclivities as assessed in late 2020 may differ substantially from those in cycles in the more distant past.

⁷In Supplemental Information Section F, we incorporate additional variables theorized to influence





Figure 3: Effect of Organized Interest-Member of Congress Ideological Distance on Campaign Contributions. Figure presents the predicted values and bootstrapped 95% confidence intervals from the zero-inflation (Panel A) and count components (Panel B) of a zero-inflated negative binomial model.

Looking first at Panel A, we note that the probability that interests contribute to members is strictly decreasing as ideological distance grows, but the rate of change grows at higher levels of ideological distance; for instance, whereas decreasing distance one standard deviation from the mean (0.63 to 0.16) decreases the probability of observing no contribution by only 0.8%, a one standard deviation increase in distance leads to a relatively larger increase in the probability of observing no contribution by 0.8%, a one standard deviation by 1.8%. Thus, while interests are most likely to contribute to ideologically proximate members, the penalties assessed for ideological distance are more severe for members with diametrically opposed ideological positions as compared to relative moderates. Panel B exhibits a somewhat different trend, as increasing ideological distance from zero at first leads to a gradual but statistically distinguishable increase in the amount contributed up to a distance value of contribution behavior, such as whether members are in the majority party or of power committees. The substantive results of those analyses are similar to those presented here.

0.38, after which point the predicted amount interests donate to members drops precipitously with growing ideological distance.

This pair of findings lends some support to both theories of lobbying that assert contributions are used to bolster electoral fortunes or subsidize those members who share the same preferences (Hall and Deardorff 2006; McCarty and Poole 1998) as well as those that argue contributions serve to compensate for ideological dissimilarity from members they seek to access and influence (Snyder 1991; Stratmann 1992, 1996). On the one hand, interests are most likely to donate to members most ideologically proximate to them. On the other hand, the substantive difference in the probability that members donate to members that are moderately distance from them is substantively small, and interests contribute the most money to members who are weakly distant rather than perfect ideological matches. While our results clearly indicate that interests are less likely to contribute and contribute fewer dollars to members who are relatively ideologically proximate and somewhat distant. Further work should explore whether interests act on different motivations when contributing to both types of members and under what conditions they may prefer to donate to one versus the other—and our LEscores provide a novel opportunity to conduct that work.

Conclusion

The study of organized interests has long been hampered by data limitations, such as the inability to directly observe the advocacy activities undertaken by the interests lobbying on a given issue (Baumgartner et al. 2009), access between interests and policymakers (Miller 2021), and the relative positions of a broad cross-section of interests in a common ideological space. Our LEscores improves on extant measures by increasing the scope of interests whose preferences can be measured and utilizing a measurement strategy that does not rely on specific interest behaviors that are themselves objects of scholarly study and reflect both strategic considerations and interest preferences. Consequently, researchers can utilize our ideology measures to probe theories that invoke interests' preferences but have been seldom subjected to empirical tests due to previous limitations. In addition to the application we present here exploring interests' decisions to contribute to sitting members of Congress, our measure could also facilitate analyses of how interest ideology influences outcomes such as position-taking on congressional bills (Lorenz et al. 2020), which interests committees solicit for testimony (Ban et al. 2023), and with which policymakers interests have lobbying contacts (Liu 2022).

Finally, while our LEscores substantially expands the scope of interests for which scholars can measure preferences, many more interests and other types of influence organizations, such as political action committees and think tanks, fall outside the scope of our present measure. However, our survey-based measurement approach is easily scalable and customizable to obtain preference measures of broader or more focused populations in the organized interest universe once scholars have identified sufficiently-sized pools of experts to perform rating tasks. In addition to lobbyists, researchers may consider recruiting policy and campaign consultants, current government employees, journalists, and other political elites whose work frequently brings them into contact with organized interests. When trying to measure hard-to-observe latent characteristics of political organizations that are often expressed in private or otherwise difficult to quantify ways, political elites can often offer unique insights, and organized interest scholars stand to benefit from harnessing those insights to expand our research horizons.

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Online Appendix for "Using Expert Evaluations to Scale Interest Group Ideology"

(Not intended for print publication)

Contents

A Sampling Procedure and Descriptive Statistics				
	A1	Descriptive Statistics of Respondents	5	
	A2	Sample Descriptive Statistics	6	
в	Mo	deling Discussion	9	
С	Dist	tributions by Industry	11	
D	Con	nparing CFscores and IGscores	13	
\mathbf{E}	Sen	sitivity to the Choices of Prior Precision	14	
	A1	Top Spenders and Clients	14	
	A2	Placing an Uninformative Prior on Client Positions	14	
	A3	Results from Different Prior Precisions	16	
F	Арг	plication: Campaign Contributions and Ideological Proximity	18	

A Sampling Procedure and Descriptive Statistics

Under the Lobbying Disclosure Act of 1995 (LDA) and subsequent amendments, individuals who meet the thresholds for designation as a lobbyist must complete and submit a quarterly report, known as an LD-2 form, for each of their clients detailing their lobbying activities on behalf of the client. The sampling frame for our survey is the full universe of individuals listed as 1) lobbyists 2) or points of contact on quarterly LD-2 reports from the first quarter of 2019 through the third quarter of 2020.

• Registered Lobbyists Under the LDA, a lobbyist is an individual who, in working on behalf of a client, makes a "lobbying contact," or an "oral, written, or electronic communication" regarding the conduct of public policy, with more than one "covered official," which includes most members of the executive and legislative branches—include the president, vice-president, and members of Congress—and spends 20 percent or more of her time working for the client on lobbying activities within a quarterly

period. As of January 2017, a lobbyist employed directly by a client that spends \$13,000 or more, or a lobbyist contracted by a client that spends \$3,000 or more on lobbying activities in a given quarter, is required to file an LD-2 report (or be listed as a lobbyist on their organization's LD-2 form) for that quarter.

• **Points of contact** Each LD-2 report identifies a point of contact for the lobbyist or for the organization employing the lobbyist, or the registrant. While this point of contact can be an individual who is not a registered lobbyist under the LDA, the vast majority of points of contact are LDA lobbyists, and those individuals who are not LDA lobbyists often perform government relations or policy advocacy functions and are familiar with lobbying activity (see Miller 2022).

For each individual, his or her most recent appearance on a report was selected so as to obtain the most up-to-date contact and employment information; in cases where the same individual appeared on more than one LD-2 report in a given quarter, one report on which that individual appeared as the point of contact or lobbyist was randomly sampled to be associated with that individual. Thus, individuals who represented multiple clients in the same quarter were, for the purposes of our survey, associated with only one of those clients, and in the scaling task were asked to place only that client in ideological space.

While each LD-2 report provides an email address for the designated point of contact, it does not provide email addresses for the registered lobbyists listed on that LD-2 report who are not the point of contact.⁸ To expand the size of our sample and to include more potential respondents who are themselves registered lobbyists, we assumed that the email addresses of the lobbyists followed the same format as the email address provided for the point of contact and imputed for those lobbyists email addresses following the organization's apparent format; for instance, if the point of contact's email addresses were similar in structure and used the names provided to impute email addresses of the same pattern. After combining the email addresses imputed for lobbyists with those provided on LD-2 forms for points of contact and de-duplicating the list of individuals and email addresses, our final sampling frame consisted of 14,404 lobbyists and points of contact.

Initial survey invitations were distributed to all 14,404 unique recipients on December 1, 2020 and

⁸While most email addresses provided for points of contact are unique, some lobbying firms provide generic email addresses for all reports they file (e.g., LDA@Venable.com). To minimize email bounces and improve response rates, we identified instances in which generic email addresses were used and made every effort was made to obtain a unique email address for that individual (searching the organization website, LinkedIn, other social media platforms, etc.). reminders were sent to all persons who had not yet completed the survey on December 10, December 21, and between December 27 and January 3, 2021. The email addresses for 3,063 intended recipients were deemed invalid when initial invitations were sent, leaving a sampling frame of 11,341 lobbyists and points of contact and an overall response rate of $\frac{1,210}{11341} \approx 10.7\%$. This response rate compares favorably to those achieved in other surveys of American political elites (see Miller 2022)

It is difficult to assess the representativeness of our respondents to the lobbyists and points of contact in the sampling frame because scant systematic information is available regarding them and the clients for which they work; unlike more publicly visible political actors in Washington, DC, such as members of Congress, whose personal information is collated in the Biographical Directory of the United States Congress and can be systematically coded for inclusion in research, no central repository for similar personal information, such as partisanship and career history, exist for lobbyists and policy advocates. However, four pieces of information about the lobbyists and points of contact and their clients can be gleaned from their LDA filings and the Center for Responsive Politics (CRP), which cleans and aggregates the LDA filings: the client's quarterly lobbying expenditures with that lobbyist or point of contact's employer (i.e. the client's own expenditures if the lobbyist or point of contact is employed directly, or the client's expenditures with a given firm if the lobbyist or point of contact is a contract employee); whether the filer is the client or a lobbying firm contracted by a client; the client's sector coding, as assigned by CRP; and whether the person, if a point of contact, is also a registered lobbyist under the LDA.⁹ Table A1 compares the distribution of these four characteristics in both the full sampling frame and the sample of respondents who offered ideological ratings. These comparisons reveal differences for two of the four characteristics (Lobbying Expenditures and CRP Category) that are substantively small but statistically distinguishable at the p < 0.05 level.¹⁰ Thus, while the sample of respondents differs from the sampling frame, it contains a sizable number of respondents with each unique level of these characteristics.

⁹The first three of these pieces of information are easily observable from CRP's aggregated LDA filings, but the fourth can only be determined by assessing whether points of contact listed on LD-2 forms are also listed as registered lobbyists. To determine whether each point of contact is also a registered lobbyist, I used approximate matching techniques to compare the name of the point of contact on each LDA filing to the names of all of the registered lobbyists also appearing on the filing, and visually inspected the best match for each LDA form to determine if the point of contact was also listed as a registered lobbyist.

¹⁰The |t| and χ^2 test statistics from the difference in means and χ^2 tests are: |t| = 1.00 for Lobbyist Employer; $\chi^2_3 = 61.33$ for Lobbying Expenditures; $\chi^2_{13} = 51.33$ for CRP Category; and |t| = 1.96 for Registered Lobbyist.

Finally, Table A2 provides information on the descriptive characteristics of the individuals who offered ideological ratings. This descriptive information was collected as part of the survey, and thus only provides information about respondents. The high proportions of respondents who report education levels of "post-graduate degree" (68.1%), income levels of "\$200,000 or more" (58.1%), experience levels of "more than 20 years" (41.1%), and professional roles as "lobbyists" or "executive officers responsible for lobbying" (88.6%) suggest that most survey respondents were themselves members of the population of interest—political elites who play a substantive role in lobbying and policy advocacy—rather than low-level employees who may respond to emails but lack significant lobbying experience.

A1 Descriptive Statistics of Respondents

Characteristic	% of Respondents (N)	% of Sampling Frame (N)	
Employer Type			
Client	53.9%~(649)	$56.0\%\ (6350)$	
Firm	46.1%~(555)	44.0% (4991)	
Lobbying Expenditures			
First Quartile	30.7%~(370)	$25.0\%\ (2836)$	
Second Quartile	29.1%~(350)	25.0%~(2835)	
Third Quartile	23.3% (280)	25.0%~(2835)	
Fourth Quartile	16.9% (204)	25.0%~(2835)	
CRP Category			
Agribusiness	5.1%~(61)	4.1%~(468)	
Communications and Electronics	6.1% (74)	7.5%~(853)	
Construction	1.1%~(13)	2.0%~(231)	
Defense	0.8%~(10)	1.8%~(199)	
Energy and Natural Resources	$5.6\%\ (67)$	7.1%~(807)	
Finance, Insurance and Real Estate	8.2% (99)	10.6%~(1198)	
Health	20.3% (245)	19.6%~(2218)	
Ideological and Single-Issue	12.5% (151)	10.0%~(1132)	
Labor	2.6%~(31)	2.2% (247)	
Lawyers and Lobbyists	1.0%~(12)	0.6%~(69)	
Misc Business	11.5%~(138)	12.7% (1445)	
Other	7.1%~(85)	5.7%~(642)	
Transportation	6.9%~(83)	7.1%~(807)	
Unknown	11.2% (135)	9.0%~(1025)	
Registered Lobbyist			
Yes	76.4% (920)	75.3% (8540)	
No	23.6% (284)	24.7% (2801)	

Table A1: Comparison of Respondents with Sampling Frame

A2 Sample Descriptive Statistics

Characteristic	% of Respondents (N)
Gender	
Female	33.6%~(407)
Male	66.0% (799)
Prefer not to say	0.3%~(4)
NA	0.0%~(0)
Age	
18-29	7.4% (90)
30-49	$38.6\% \ (467)$
50-64	38.8% (469)
65 or over	15.0% (182)
NA	0.2%~(2)
Education	
Some college, no 4-year degree	1.7% (20)
College graduate	35.4%~(428)
Post-graduate degree	63.0%~(762)
NA	$0.0\%\;(0)$
Race	
American Indian or Alaska Native	0.2%~(3)
Asian	1.7%~(21)
Black or African-American	3.5%~(42)
White	90.7%~(1098)
Other	3.1%~(38)
NA	0.7%~(8)
Spanish, Hispanic, or Latino?	
Yes	3.6%~(43)
No	95.2%~(1152)
NA	1.2%~(15)
Income	
Less than \$25,000	0.2%~(2)
\$25,000-\$49,999	0.7%~(8)
\$50,000-\$74,999	4.1% (50)
\$75,000-\$99,999	4.0% (48)
100,000-199,999	20.7% (251)
\$200,000 or more	66.6%~(806)
NA	3.7%~(45)

Table A2: Descriptive Statistics of Respondents

Characteristic	% of Respondents (N)		
Ideology			
Very liberal	12.9%~(156)		
Somewhat liberal	26.0% (314)		
Slightly liberal	15.1% (183)		
Neither liberal nor conservative	13.6%~(165)		
Slightly conservative	11.0%~(133)		
Somewhat conservative	15.6%~(189)		
Very conservative	5.3%~(64)		
NA	0.5%~(6)		
Party Identification			
Strong Democrat	43.2% (523)		
Not a very strong Democrat	$9.6\%\ (116)$		
Lean Democrat	7.3%~(88)		
Independent	7.0%~(85)		
Lean Republican	5.2% (63)		
Not a very strong Republican	10.0%~(121)		
Strong Republican	15.1% (183)		
Other	2.4% (29)		
NA	0.2%~(2)		
Lobbying Experience			
Less than 5 years	$13.0\%\ (157)$		
5-10 years	18.9% (229)		
11-15 years	17.3% (209)		
16-20 years	14.1% (171)		
More than 20 years	36.7%~(444)		
NA	0.0%~(0)		
Past Government Experience			
Member of Congress	4.9%~(59)		
Congressional staffer	46.2% (559)		
Presidential appointee	$9.0\%\ (109)$		
EOP staffer	4.0%~(48)		
Civil servant	11.7% (142)		
Other	10.7%~(130)		
No experience	32.9%~(398)		
Current Role with Client			
Lobbyist	67.7% (819)		
Executive officer responsible	22.3% (270)		
for lobbying			
Executive officer not responsible	3.5% (42)		

Characteristic	% of Respondents (N)
for lobbying	
Other	5.7%~(69)
NA	0.8%~(10)

B Modeling Discussion

Convergence

Overall, the chains seem to have converged well. While the large number of parameters in the model makes it difficult to show all the relevant metrics, we have inspected distributions, autocorrelation and traceplots of several random samples of parameters. Generally, the chains look normally distributed, seem to have mixed well, and exhibit low levels of autocorrelation.

As evidence of this, Figure A1 shows the full distribution of \hat{R} values. If we use the 1.05 threshold, only one value is relatively far over that, and it's for the d_1 , which is the correlation between DW-NOMINATE for non-MCs. This was intentionally separated out from the other parameters used for bridging as it has no meaningful interpretation. Therefore, a problem with convergence is not surprising or something that will be an issue for our model. The overall \hat{R} is 1.0015.



Figure A1: Distribution of \hat{R} Values

α and β Parameters

Next, we examine the estimated individual shifting and stretching parameters that guide the overall ideological scale. Figure A2 shows the distributions of parameters individual. To get these, we extract the means of all individual distributions and plot them. As we can see, both distributions are centered around no shifting and stretching. This implies that while there are individual differences, on average, the raters have relatively similar perceptions of the overall space.



Figure A2: Distributions of Individual Shift and Stretch Parameters. **Note:** The figure shows the distributions of all individual shift and stretch parameters (means of individual posterior distributions).

Bridging

In order to bridge our estimates to the DW-NOMINATE space, we make the assumption that a rater's own ideology impacts their perception of the ideological space. This is based on findings in both Hare et al. (2015) and Bølstad (2023). However, to assess whether it is also the case in our setting, we show the estimated impact in our model of a former MoC's DW-NOMINATE score on her α (shift) and β (stretch) parameters respectively. While the estimates are noisy, they overall suggest that both the shifting and stretching parameters are impacted by the ideology of the former MoCs, as the means of both distributions are close to -1. The fact that DW-NOMINATE scores can be used to guide the shifting and stretching parameters suggests that our strategy can help us bridge our estimates onto the DW-NOMINATE scale.



Figure A3: Estimated Impact of DW-NOMINATE on Shift and Stretch Parameters of Former MoCs. **Note:** The figures show the simulated posterior distributions of the estimated impact on individual raters' shift (Panel A) and stretch (Panel B) parameters

C Distributions by Industry



Figure A4: Perceived Ideology by Industry. **Note:** Groups are split into industries based on the coding by CRP.

D Comparing CFscores and IGscores

An interesting finding in the main paper is that the correlation between CFscores, IGscores and lobbyist perceptions of ideology is weaker for groups on the right wing. In this appendix, we examine the correlation between CFscores and IGscores to make sure that this result does not arise, because lobbyist perceptions are a worse tool for scaling right-wing groups. As we can see from Figure A5, the disagreement over the placement of right-wing groups is large between the two existing measures too. Actually, it seems that there exists an equal disagreement in placing groups on the left-wing between these measures, too.



Figure A5: Correlation Between CFscores and IGscores. **Note:** The Pearson's correlation is printed in the top-left corner. The fitted line is a LOESS smoother.

E Sensitivity to the Choices of Prior Precision

In the baseline estimates, we place additional weight on the client evaluations by using a normally distributed prior with mean equal to the average evaluation of the raters and a precision of 3.5. While we are confident this adds information to the scaling procedure, ideally, the choice of prior should not be the driving force behind the estimates. We conduct three robustness analyses to ensure this. First, we split the sample into organizations among the top 1,000 spenders and clients, respectively, and examine the correlations between lobbyist perceptions, CFscores and IGscores within those subsamples. Second, we examine the results when using an uninformative prior on the ideologies of all organizations. Third, we show how our estimates vary depending on the choice of prior precision. This shows that our estimates are not very sensitive to the choice of prior precision.

A1 Top Spenders and Clients

In Figure A6 we split the sample into organizations among the top 1,000 spenders on lobbying (Panels A and B) and groups scaled by lobbyists of whom they are clients (Panels C and D). For both CFscores and IGscores, the correlation with lobbyist perceptions is much stronger in the subsample of organizations that are rated by their own lobbyists. This is particularly true for CFscores.

Three important results emerge. First, the correlation between lobbyist perceptions and the two existing measures of group ideology is stronger in the client subsample. This provides validation of our up-weighting of ratings by lobbyists of their own clients. Second, there is a substantial correlation among top spenders, too, which shows that our measure captures something meaningful in the full sample. Third, the weaker correlation between groups on the right-wing persists in both subsamples, which suggests that it is not an artefact of a lobbyists not really knowing their clients' position, b prior specification.

A2 Placing an Uninformative Prior on Client Positions

Next, we re-estimate the model with an uninformative prior on the evaluations of lobbyists rating their clients. To do so, we use the same model specification as in the baseline results, but use a precision parameter of 0.01, which will make the evaluations of clients receive the same weight as any other evaluation.

The results are presented in Figure A7. Substantively, this yields the same results as in the main paper. First, lobbyist perceptions of ideology correlate strongly with both CFscores and IGscores. Second, the correlations remain weaker among right-wing groups. This pattern is more pronounced for the CFscores, where the fitted line is completely flat for the entire subsample of groups with positive scales.



Figure A6: Splitting the Sample Between Top Spenders and Clients



Figure A7: Results With Uninformative Position Prior

A3 Results from Different Prior Precisions

Finally, we re-estimate the model specification with different precision parameters on the client prior. Besides the baseline, we use precision parameters of 0.01, 1, 1.5, 2, 2.5, 3, 4 and 5. The pairwise correlations between all of the resulting scales are presented in Figure A8. The most important column to examine is the first column, which shows the correlation between the baseline specification and all alternative ones. As we can see, the correlation between the position scales resulting from any specification of the prior is very strong. The weakest association between the baseline scales and another specification with the completely uninformative prior – this association is still approximately 0.95.

It is interesting to examine the second column, which shows the association between the position estimates from a specification with an uninformative prior and the alternative specifications. As we can see, most of the disagreement arises among right-wing groups. This suggests that the prior on client positions is particularly helpful among right-wing groups.

Alongside the results presented above, this provides strong evidence that a) our scales improve from the use of the client prior, but b) are not overly sensitive as to how that prior is specified.



Figure A8: Results With Many Different Position Priors. *Note:* *** indicates statistical significance at the 0.01 level.

F Application: Campaign Contributions and Ideological Proximity

	Model 1		Model 2	
	Count model	Zero model	Count model	Zero model
Intercept	8.33^{*}	1.62^{*}	8.35^{*}	1.80*
	(0.01)	(0.01)	(0.01)	(0.02)
Interest Ideology - Member Ideology	0.13^{*}	-0.01	0.12^{*}	0.09^{*}
	(0.02)	(0.02)	(0.02)	(0.02)
Interest Ideology - Member Ideology ²	-0.06^{*}	0.15^{*}	-0.06^{*}	0.12^{*}
	(0.01)	(0.01)	(0.01)	(0.01)
Majority Party Leader	· · /		0.14^{*}	-0.44^{*}
			(0.01)	(0.02)
Minority Party Leader			0.14^{*}	-0.34^{*}
			(0.01)	(0.02)
Majority Party Member			0.00	-0.08^{*}
			(0.01)	(0.01)
Power Committee Member			0.00	-0.22^{*}
			(0.00)	(0.01)
% Vote in Last Election			-0.00^{*}	-0.00
			(0.00)	(0.00)
Legislative Effectiveness			0.02^{*}	-0.07^{*}
			(0.00)	(0.00)
$\operatorname{Log}(\theta)$	0.54^{*}		0.54^{*}	
	(0.00)		(0.00)	
AIC	2724141.58		2701055.43	
Log Likelihood	-1362063.79		-1350508.71	
Num. obs.	$729,\!642$		722,354	

Table A3: Effect of Ideological Distance on Contributions

This table provides coefficient estimates and standard errors from the components of zero-inflated negative binomials including only ideological distance (left two columns) and also including a set of control variables (right two columns). The control variables included are substantively comparable to those used in Bonica (2013), which also examines the determinants of interest campaign contributions to members of Congress but does not incorporate a measure of ideology exogeneous from contributions themselves, as well as a measure of legislative effectiveness. Control variable values are drawn from the Center for Effective Lawmaking (https://thelawmakers.org/ data-download). *p < 0.05