# Polarizing Pluralism <br> Party Competition, Interest Group Strategy, and the Resurgent Mischiefs of Faction* 

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#### Abstract

Given the resources that interest groups can offer parties, the latter have a clear incentive to incorporate the former. What's less clear is why groups not already deeply embedded in one of the two major parties would permit this to happen. Yet, recent work on the revealed preferences of organized interests suggests that they do. To resolve this puzzle, we develop a theory of interest group partisanship in which, as party competition intensifies, members of each party condition access on signals that reduce the group's credibility to the other party. We test hypotheses pulled from the theory using novel measures of dynamic interest group ideal points, leveraging a large corpus of interest group bill positions over three decades. Our findings imply a potential role of interest groups in sustaining polarization, as the linkage of their fate to one party may incentivize them to contribute to their party's brand maintenance and power-seeking efforts.


[^0]In Federalist 10, James Madison argues that one of the virtues of representative democracy is the way by which it controls the effects of the "mischiefs of faction" inevitable in human society. Madison argues, in effect, that the design of the American political system enables the governance of a large and diverse society, ensuring that no one set of like-minded actors could seize unchecked power. This, in turn, permits the growth of a pluralist political system wherein no faction could consistently infringe upon the rights and liberties of others.

Underlying such an environment, however, are a number of key requirements and assumptions. Chief among these requirements is the ability for individual interests to coalesce freely and episodically around individual issues and causes. That is, in order to prevent a single interest or set of interests from predominating, winning coalitions must be able to differ across legislative initiatives. Operationally, this implies that when interests seek to partner with legislators in the policymaking process, they do so on a legislator-by-legislator basis, building relationships with individual lawmakers and seeking out those whose district or personal interests coincide best with those of the organization.

In practice, this "pluralist heaven" has frequently been in tension with higher forms of political organization, namely parties, as many scholars of American politics have underscored. Unlike interest groups, parties necessarily seek to coordinate across disparate interests to produce a durable governing coalition. While parties have been part of the American political system since the earliest portions of American Constitutional history, their role in shaping political conflict in the United States has evolved in recent decades. That is, as the parties have polarized and congressional majorities have become less secure, party competition has grown fiercer and partisan considerations have increased in salience-augmenting party leaders' roles as enforcers of party unity. Given that such dynamics strongly condition how individual legislators exercise power, it is unclear how organizations can avoid the partisan fray; or, for that matter, whether they want to. In such highly competitive party systems, what role do organized interests play?

To answer this question, scholars have begun exploring the clear advantages enjoyed by parties and party leaders when they seek to align interest groups with partisan causes. For example, interest groups can help parties reach important electoral subconstituencies and offer other organizational benefits, as did evangelical groups in aligning with the Republican Party during the Reagan administration (Walker, 1991; Krimmel, 2017). Such organizational benefits can accrue to individual partisans and would-be party leaders, even against the opposition of other party members (Zoorob, 2019). Beyond the potential organizational benefits of bringing interest groups into the fold, groups may be useful in their direct advocacy capacity. Fagan, McGee and Thomas (2019) show that more consistently party-aligned groups
in the most recent congresses tend to lobby on a more diverse set of issue areas. In explaining why more party-aligned groups have more diverse issue agendas, Fagan, McGee and Thomas argue that encouraging groups to diversify their issue agendas helps party leaders win policy conflicts through conflict expansion (c.f., Schattschneider, 1975). To secure these potential benefits, party leaders may have some ability to incentivize group allegiance by manipulating political institutions so as to reward loyal organizations and disrupt opposing ones (Walker, 1991, though see also Krimmel 2017). While groups may benefit from aligning with a particular party when that party is in power, however, those benefits diminish as that party's hold on power becomes less secure. Thus, while it is clear that increasingly competitive parties would gain from incorporating interest groups into their electoral and governing strategies, it is unclear whether groups believe that they stand to benefit from pledging allegiance to a single party—particularly when parties' offer of power-by-proxy becomes less reliable.

One possibility is that interest groups themselves may form the basis of party organization. Indeed, both major party coalitions include discrete subsets of "policy demanders" that may be formal interest groups-or else be sufficiently coherent in their shared interests that they behave similarly to organized interests within the party coalition (Bawn, Cohen, Karol, Masket, Noel and Zaller, 2012; Cohen, Karol, Noel and Zaller, 2009). Indeed, particularly for the Democratic Party in the United States, managing and reconciling the needs of various allied interests may be central to a party's organizational function Grossmann and Hopkins (2015,0). These accounts are particularly well-suited to explaining the behavior of interest groups that are "naturally" closer to one of the two major parties. They are less well-suited, however, to examining the conditions under which a previously non-partisan group would seemingly choose to become partisan.

And yet, a transition toward increasing interest group partisanship and polarization remains evident. (Crosson, Furnas and Lorenz, Forthcoming) use a large collection of interest group position-taking data to estimate ideal points for interest groups, based on their public bill positions over several more recent Congresses. By these estimates, the modern interest group system is ideologically polarized. Fagan, McGee and Thomas (2019) further demonstrate that, indeed, a large number of groups tend take positions favoring the legislation introduced by members of one party over the other. What is unclear from either account is whether this polarization is merely present, or if it is in fact increasing relative to interest groups in earlier periods. For as more interest groups become partisan, their role in the political system changes; and as Pierson and Schickler (2019) have emphasized, the effects of polarization and party competition on interest group politics are potentially dire. Where classic relational lobbying can bridge partisan divides
on the basis of other shared interests, intense party competition and incentives to align with one of the major parties may compound the challenges of polarization and hyperpartisanship.

To investigate this possibility, we build on prior work by focusing on the conditions under which interest groups will align with a party. According to our account, interest groups rely on costly signalling of shared interests to individual legislators in order to influence those legislators. As party competition intensifies, those legislators' partisan considerations become more salient in determining the groups with whom they will meet and partner. To signal partisan alignment rather than just individual alignment, groups publicly take party-consonant positions on issues beyond the group's core interests. As party competition has generally increased over time, we expect to observe more behavior consistent with this "partisan signalling." We test these claims by analyzing the largest dataset of interest group positions on federal legislation compiled to date, covering the years 1990 to 2018. From these, we produce over-time estimates of group ideal points and issue diversity. Using these measures and leveraging the general trend of increasing party competition over time, we find that large majorities of interest groups across many industries and organizational types exhibit public position-taking that is: more diverse in its issue content; better characterized by a single "left-right" dimension, similar to other actors in the American political system; and, along that dimension, increasingly polarized. Together, these findings highlight how the modern partisan political context has fundamentally shifted the way interest groups approach advocacy. Where once they groups served as key agents in forming cross-partisan coalitions on important legislation, our findings suggest many have moved closer to becoming adjuncts to parties.

## 1 A Theory of Lobbying with Competitive Parties

In this paper, we present a theory that generates expectations about the conditions under which interest groups behave more like partisans than "special" interests. In short, we argue that policy-maximizing organizations working in eras of high party competition face a trade-off between access to one of the two major parties, and that this trade-off is "sticky" because it requires costly signalling of shared preferences to one party or the other. In turn, this signalling necessarily indicates preference disagreement with the other party. Such signalling can take the form of public position-taking on issues beyond a group's core interests, leading groups engaging in it to exhibit more diverse issue agendas. At the same time, taking party-consistent positions on a wider range of legislation leads groups' revealed preferences and advocacy behavior to appear more consistent with the dominant left-right ideological dimension underlying Amer-
ican politics, irrespective of their sincere preferences and priorities.
We start from the assumption that organized interests seek to maximize their influence on legislative development and policy outcomes. This influence can take many forms but crucially depends on the target of influence, in this case a legislator, believing that a group shares their policy preferences (Schnakenberg, 2017; Hall and Deardorff, 2006; Lupia and McCubbins, 1998; Hansen, 1991). One implication of this assumption is that factors that increase a legislator's perception of preference alignment with a particular organization will in turn give that organization more influence over that legislator, all else equal.

Next, we assume that while legislators condition their relationships with interest groups on preference alignment, they have only imperfect information about the alignment of particular organizations' preferences with their own. Instead, they rely on signals from groups, in order to update their beliefs about which groups align with their preferences. One implication of such an arrangement (e.g., Lupia and McCubbins, 1998) is that signals of preference alignment are more credible to the extent they are costly to transmit. We take this as an additional assumption: to be credible, a signal of policy agreement must impose costs on the signalling organization, or at least create obvious potential to do so. In classic, relational depictions of interest group lobbying, organizations pay these costs selectively, on a legislator-by-legislator basis. Campaign contributions are perhaps the most obvious example of such signals (Hall, Van Houweling and Furnas, n.d.), but lobbying expenditures and the development and targeting of legislative subsidies (c.f., Hall and Deardorff, 2006) similarly entail costs on the organization and are delivered to legislators individually. Critically, according to classic models of group-legislator relations, only the legislators targeted by these cost expenditures are likely to observe them. Because these types of costly signals are delivered individually, they permit legislators to form individual beliefs about their preference alignment with particular organizations.

Here, we focus on how party competition disrupts this classic relational depiction of lobbying. While parties may coalesce around any number of bases—personal ties; geographical, cultural, or racial identity; or aligned policy preferences-a consequence of the shared party label is that members of the same party have electoral fates at least somewhat tied to one another (Cox and McCubbins, 1993). To protect their party's collective reputation and public brand, rank-and-file party members vest party leaders with procedural powers that allow them to control the legislative agenda, even at the expense of their individual ability to engage in policy entrepreneurship (Cox and McCubbins, 2005; Cann, 2008; Koger and Lebo, 2017). This dynamic became particularly pronounced in the wake of the 1990 s Gingrich Revolution, after which party competition intensified and congressional majorities have become less durable (Lee, 2016;

Theriault, 2013; Crosson, Furnas, LaPira and Burgat, Forthcoming). During this time, as Lee (2016) forcefully underscores, parties intensified their focus on party messaging, understanding that a clear and healthy party brand may aid in their fight to retain or regain the majority. Taken together, the transition to an era of high party organization and competition in Congress over the last few decades may alter the considerations individual legislators weigh as they grant access to and influence over the policymaking process, the benefits organizations receive from their doing so, and the strategies organizations employ in response.

These developments have significant implications for interest group strategy. When party competition is less intense, organized interests may rely on classic relational lobbying, paying costs to transmit signals of policy agreement-and thereby gaining credibility, access, and influence-on a legislator-by-legislator basis. As party competition intensifies, legislators face incentives to prioritize the preservation of their party's collective reputation as they consider the interests with which they will partner. Moreover, because legislators are rewarded and punished for their partisan loyalty by members of their own party (Cann, 2008), it is not merely the individual legislator's beliefs that affect their perception of an organization's partisanship. Rather, it is their beliefs about their co-partisans' beliefs that do so. This, in effect, conditions an organization's access to and influence with individual members of a party on its broad reputation for partisanship among other legislators. Put differently, a member's likelihood to meet or cooperate with an interest group depends on more than shared policy objectives between group and district; rather, it depends in part on a group's viability as a partner in the broader competition over majority control. In these cases, private signals on a legislator-by-legislator basis are not enough. It is sufficient, if not necessary, for an organization's signals to be transmitted publicly, observed by legislators collectively, and foster the belief that the organization is not just parochial or even ideological, but that it is explicitly loyal to a party.

This raises an important question: what makes an organization look publicly partisan? Furnas, Heaney and LaPira (2019), for example, explore the implications of organizations hiring partisan lobbying firms in sending such signals. Here, we focus on groups' support of the various pieces of a party's legislative agenda as important public signals of partisanship. Like other types of signals, public positions must be credible to be effective, and credibility can come from the costs incurred by the organization transmitting those messages. Of course, the act of publicly declaring a position imposes trivial direct costs (e.g., the cost to update an organization's website or issue a press release). But the public nature of such acts can have a series of costly downstream effects. Organizational maintenance strategies are themselves tied to advocacy strategies (Walker, 1983,9), so adopting a partisan advocacy strategy can constrain the types
of organizational maintenance strategies an organization can pursue.【 As a hypothetical example, a gun owners' organization may try to signal its partisanship to a socially conservative political party by taking a position opposing a legal right to abortion. In doing so, however, they may find themselves unable to attract and retain grassroots members who are gun owners but oppose the organization's stance on abortion-or who simply are not interested in social policy. This in turn may reduce the ability of the organization to engage in membership-based grassroots advocacy on issues related to gun ownership, and force them to rely on other strategies and means of fundraising. Thus, though public position-taking is not immediately costly, it can imply future costs to the organization.

Beyond the potential to alienate an organization's membership, public position-taking sends a signal to many political elites simultaneously. An organization that publicly takes positions on legislation provides an opportunity for many legislators to update their beliefs about that organization. To the extent that an organization's public position-taking is consistent with a party's legislative priorities, members of that party may increasingly believe the organization shares their collective, as well as individual, interests-and on that basis decide to work with the group. They are more likely to draw such inferences, however, when party competition is higher. That is, because as members of opposing, competitive parties also observe public position-taking by an organization, these signals of alignment with one party imply opposition to the other. For members of the other party, such organizations will appear much less likely to share interests and thus seem less worthy of access. Thus, by publicly creating conditions that effectively cause themselves to forego access to members of one party, interest groups incur a cost to their overall level of effectiveness that makes the signal of their alignment to their would-be partisan allies more credible.

### 1.1 Empirical Expectations

The discussion above creates the basis for three main empirical expectations that we will test using an original dataset of interest group position-taking on bills before Congress. Each of these depend on one last theoretical assumption; namely, that when considering only the last few decades, relatively recent years will feature monotonically higher levels of partisan competition than earlier years. This trend is reflected in roll-call records more polarized by party and characterized by a single dimension of ideological conflict between them (Poole and Rosenthal, 1984; McCarty, Poole and Rosenthal, 2016), ongoing replacement of incumbent legislators with more partisan newcomers (Theriault, 2013), increased party competition and emphasis on communications staff in party leadership (Lee, 2016), and decreasing frequency of bi-

[^1]partisan legislative cosponsorship coalitions (Harbridge, 2015). Thus, for all the empirical expectations outlined below, the independent variable is, in effect, the time period and by extension, the degree of party competition. ${ }^{\text {I }}$

We build our empirical expectations from the position-taking mechanisms underlying our theory outward, ultimately describing broad trends regarding polarization and overall interest preferences. The first such empirical expectation concerns the set of issue priorities an organization will reveal through the set of bills on which it lobbies. Many organizations are founded on specified shared policy interests and lobby on those interests once they become active. For these organizations, this leads them to lobby initially within a narrow range of issue areas, giving rise to consistent if not impermeable policy networks (Heinz, Laumann, Nelson and Salisbury, 1993). To continue lobbying solely on those issues, even if their preferences are or become concordant with the legislative priorities of one of the major parties, gives little additional information about the partisan valence of their preferences: they can be viewed as continuing to advocate for the interests they have been pursuing all along. Thus, when party competition intensifies and organizations' access depends on the partisan character of their signals to legislators, we would expect groups to lobby outside of their core interests. This would, in effect, broaden the set of issues on which an organization is lobbying. We therefore expect party competition to encourage issue diversification: in more recent years in our data, groups will tend to lobby across a wider range of issue areas.

This party-consistent issue diversification, in turn, indirectly shapes how interest groups position themselves within the broader framework of American legislative politics. In the classic depiction of interest groups as pursuing a narrow set of parochial concerns, organized interests idiosyncratically ally with legislators across party lines. Perhaps the classic example of this was agricultural interests, who could find common cause with legislators representing any district or state with a substantial agricultural sector (Hansen, 1991). For many types of interests, the need to shape policymaking on an ongoing basis gives rise to "access-oriented" lobbying and campaign contributions strategies that can benefit an ideologically wide range of legislators-particularly those with committee positions relevant to the group's interests (Powell and Grimmer, 2016). For such interests, legislative positions may or may not align consistently with the standard "left-right" dimension of American politics. However, as the parties have ideologically sorted (McCarty, Poole and Rosenthal, 2016; Poole and Rosenthal, 1984) and interest groups take party-consistent positions outside of their core interests to credibly signal partisan alignment, their pref-

[^2]erences should become better characterized along the dominant dimension underlying American politics. Consequently, we expect party competition to strengthen the ability of a single preference dimension to accurately characterize group preferences. More specifically, groups in later years will exhibit revealed preferences better characterized by a single ideological dimension than groups in earlier years.

Finally, because party competition ensures that neither of the two major parties is permanently in power (and thus universally preferred for the partisan signalling we theorize here), this increasing unidimensionality will draw groups with moderate preferences toward those of their aligned party. By contrast, with fewer such incentives in less competitive eras, many groups may not have initially presented such polarized preferences. Thus, we expect that groups in later years will exhibit more extreme revealed preferences than in earlier years.

## 2 Empirical Tests: Data and Methods

As a first step toward testing these expectations, we leverage new, over-time data on groups' public positions on thousands of bills before Congress. Using these data, we examine our empirical expectations in reverse order, starting first with the broader trends implied by our theory and building toward more specific expectations derived from its underlying mechanisms. Ultimately, with our data, we are able both to scale group preferences alongside those of members of Congress (Crosson, Furnas and Lorenz, Forthcoming) as well as examine the issue diversity associated with their general position-taking activities. These measurements allow us to provide evidence regarding the expectations detailed above.

Given that our hypotheses concern outcome variables are each derived from the same underlying position-taking data, we first present the data themselves. Then, after presenting some basic information about data sources and collection procedures, we detail each of our three main empirical examinations in turn. As our results ultimately show, our findings generally comport with our theory of interest partisanship in U.S. politics. Indeed, while future iterations of the project will more rigorously test our expectations with greater granularity and temporal coverage, we believe the position-taking we capture provides evidence that "special" interests have grown increasingly partisan in the era of insecure majorities. Put differently, as the value of clear and differentiated partisan messaging has increased, groups have steadily diversified their position-taking portfolios, thereby better aligning their revealed preferences along the primary dimension of conflict in U.S. politics.

### 2.1 Data: Capturing Interest Group Position-Taking

In order to examine changing position-taking patterns over time, we build on recent work characterizing interest group preferences. Crosson, Furnas and Lorenz (Forthcoming) develop a set of ideal point estimates for interest groups and members of Congress via a joint scaling of interest-group position-taking and congressional roll call votes. The resulting estimates, IGscores, span the years 2005 to 2018, covering the years for which the non-profit MapLight had collected information on interests' bill positions. In spite of the fact that such data allowed for the creation of ideal points useful for studying relatively recent interest group activity, the scores are less useful for scholarship aimed at making historical or over-time claims. For our purposes, the IGscore start-date of 2005 comes well after the beginning of the era of insecure majorities, limiting our ability to examine changing patterns in position-taking over this time period. Given these challenges, we have begun a major data collection initiative aimed at replicating MapLight's efforts for earlier periods in time. More specifically, we develop an original dataset of thousands ${ }^{3}$ of interest-group bill positions by compiling a wide variety of public documents in which interest groups have taken such positions.

Generally speaking, interest groups do not register their legislative positions via a single reporting or communications venue (Lorenz, Furnas and Crosson, 2020). Indeed, while lobbying registrations in some U.S. states do require groups to record "valence" when lobbying on a particular bill (Thieme, Forthcoming), federal laws require only that a group identify the bill or specific issue area of interest. Nevertheless, interest groups communicate their positions regularly and publicly-enabling data collection efforts like those of MapLight. Indeed, groups regularly publish newsletters, pen op-eds, send letters to Congress, and generate voting scorecards. Thus, for the years 2006 and before, ${ }^{[\mid T D}$ we have collected and compiled interest group position-taking from many of these sources, dating back to the early 1990s.

Each of our sources falls into one of two main categories: originally collected data or data compiled from previous research. With regard to the latter of these categories, we have reformatted and/or compiled existing data from interest group scorecards, Dear Colleague letters, and public positions on Supreme

[^3]Table 1: Support and Opposition among Interest Groups, by Source

| Source | Percent Oppose | Percent Support | Position Count |
| :--- | ---: | ---: | ---: |
| Congressional Record | 29 | 71 | 3167 |
| Dear Colleague Letters | 3 | 97 | 14853 |
| MapLight | 24 | 76 | 117797 |
| Nominations | 66 | 34 | 1061 |
| Press Releases | 13 | 87 | 7776 |
| Scorecards | 44 | 56 | 30215 |
| Congressional Roll Calls | 28 | 72 | 944893 |

Court nominations. We briefly discuss these sources first and provide additional descriptive information in Supplemental Information A.

Scorecards. As McKay (2008) has aptly summarized, many major interests in Washington "grade" members of Congress according to their voting decisions on selected bills from each legislative session. To date, McKay's compilation of the bill positions provided through these scorecards likely represented the largest such compilation used by political scientists. In addition to data graciously provided by McKay, we have further augmented McKay's data by directly purchasing from Voter Information Services (www.vis . org) all scored bills from 1989 to present. Together, scorecard data has contributed over 25,000 unique group positions. A unique feature of these data, compared to the other sources we use, is that the ratio of support positions to opposing positions in scorecards is relatively even (see Table $\mathbb{1}$ ). This may reflect strategic vote selection (in an effort to generate artificial "separation" between members) that has long been a concern of using interest group scorecards alone to estimate legislator roll call votes Groseclose, Levitt and Snyder (1999); Fowler (1982). Nevertheless, as we detail below, these data are balanced by our other data sources.

Dear Colleague Letters. Members of Congress routinely exchange letters among themselves, in an attempt to persuade other members to cosponsor legislation, reconsider a voting position, or prioritize a particular issue in committee. However, members are not the only ones who exchange such letters, as interest groups often send similar letters to members, advocating for or against particular legislative initiatives. As part of a broad research agenda on the structures of these letter-exchange networks, Alison Craig (see Box-Steffensmeier, Christenson and Craig, 2019) has compiled a large dataset of correspondences that register interest group positions on pieces of legislation. We have obtained these data from the American

Journal of Political Science Dataverse repository and reformatted them, joining them with specific roll call votes in Congress. Doing so contributed nearly 15,000 group positions to our data, 5,238 of which come before 2006 (and range as far back as 1999). Compared to our other sources, Dear Colleague letters exhibit the highest support-to-opposition ratio by far, approximately 97 percent. For reference, as Table 1 displays, approximately 72 percent of all roll call votes in our estimation matrix were "yea" votes.

Supreme Court Nominations. Among the most important political developments in recent decades, according to Cameron, Gray, Kastellec and Park (forthcoming), has been been the massive growth in organized interests and the breadth of their activities. Cameron et al. (forthcoming) document the extent and importance of this growth in the realm of judicial nominations, combing newspaper stories and other sources for groups' positions on judicial nomination roll calls. The authors have graciously provided these nominations positions, which we have incorporated into our dataset. These data are, by far, the most opposition-heavy, with just 34 percent of organizations recording a supportive position toward the nominee in question.

While these data sources generate valuable additions to MapLight's data, they nevertheless fall short of providing us with the information necessary to investigate our developmental claims. Perhaps most importantly, these data sources do not permit any further historical expansion. We have therefore undertaken an original data collection effort, aimed at capturing interest group position-taking in Congress from the late 1970s until present day. To do so, we have turned to two primary sources: congressional press releases and the Congressional Record. We discuss each below, providing samples from each data source. We include additional descriptive information in Supplemental Information A.

Congressional Press Releases. Political scientists have used press releases for a variety of applications, typically focused on members' communications strategies and presentations of "self" (e.g., Grimmer 2013, Cormack 2017). In their credit-claiming and position-taking efforts, members of Congress commonly invoke group endorsements as a signal to their constituents about the representativeness or quality of their legislative activities. Indeed, whether casting a controversial roll call vote or sponsoring technical legislation, announcing interest group endorsements of members' positions provides a useful heuristic for voters to draw inferences about members' activities. Given the ubiquity of interest group mentions in congressional press releases, we have worked with the data and information company Vox-

Figure 1: Example of interest-group position-taking in press release (Rick Santorum, R - PA)


Gov (www.voxgov.com) to obtain a dataset of all congressional press releases, spanning from 1995 to 2006, that mention at least one of the organizations for which we previously had generated an IGscore. An example of these press releases is provided in Figure 1.

This dataset encompasses approximately 50,000 documents, many of which contain more than one interest group position. Given the scope of these data, we have enlisted the support of research assistants at Trinity University and the University of Pennsylvania to parse the press releases, connecting interest groups' names to individual bills and roll call votes. While processing of these data is ongoing, the releases have generated a total of nearly 8,000 new interest group positions. Unfortunately, given that VoxGov focuses only on documents published to the internet, these data go back only to the mid-1990s. Nevertheless, with the infrastructure generated to process these press releases electronically, we have begun plans to process
additional releases and letters from congressional archives at the Carl Albert Center and other locations.
Overall, these data tend to communicate interest group support more frequently than opposition, as depicted in Table 11. However, particularly with regard to press releases about voting decisions, it is by no means uncommon for members to justify their opposition to policy initiatives by signaling their alignment with specific interest groups. We believe this style of position-taking represents an important counterbalance to VIS's historical scorecard data.

Congressional Record. In addition to using interest group positions to justify positions to one's constituents, members frequently marshal interest group support when introducing and debating legislation before Congress. Whether attempting to raise the profile of one's bill, argue against an amendment, or simply justify one's final yea/nay vote on legislation, members often turn to endorsements from groups and coalitions of groups. Doing so can curry favor with other members, constituents, or (of course) the groups themselves. Crucially, because these interactions occur on the congressional floor, they are captured by the Congressional Record (and its predecessors). In other words, if a member ever mentions an interest group on the floor of the House or Senate, one may use a combination of reference material and text analysis to identify that mention. Inasmuch as members mention groups in relation to specific roll call votes, these communications represent exactly the kind of position-taking behavior necessary for characterizing group preferences over time.

We have therefore undertaken an ongoing data collection effort designed to capture every interest group (and relevant bill) mention in the Congressional Record, dating back to the late 1970s. ${ }^{[6]}$ To the best of our knowledge, these efforts constitute the first attempt at compiling such information from the Record, and we believe this source to be of particular importance for three primary reasons. First, given that the Record and its predecessors span the entirety of Congress's existence, our parsing of the Record provides a reliable source of data for any historical period we wish to examine. Second, given that the intended audience on the floor includes both constituents and substantive or political experts, the extracted positions tend to be clearly linked to specific roll call votes. Indeed, more so than even the MapLight data, our initial coding of the Record includes a substantial number of positions on controversial amendments to larger pieces of legislation that themselves ultimately pass by wide margins. Finally, as depicted in Table 1, the positions recorded in the Congressional Record most strongly resemble the support-to-opposition ratios

[^4]Figure 2: Example of interest group position-taking in the Congressional Record, American Family-Owned Business Act.

found both in roll call data and the Maplight data.
At present, our collection spans the years 1995 to 2004 and has contributed approximately 3,000 additional interest group positions to our data. To pair group positions with roll call votes, research assistants at the University of Michigan and University of Nebraska-Lincoln have examined mentions of interest groups flagged by the Congressional Record Index (https://www.govinfo.gov/app/collection/ cri), pairing group names with bill and amendment numbers. An example of one such series of interestgroup mentions is captured in Figure 2. To be clear, data collection for these years is by no means complete, and we do not yet have an accurate estimate for the eventual scope of position-taking captured via this source. Nevertheless, our preliminary data collection indicates that the Congressional Record should provide thousands of instances of interest-group position taking each congressional session.

Taken together, these data represent the largest compilation to-date of interest group legislative positiontaking compiled outside of MapLight's coverage. Though our data collection continues to progress, we have compiled a sufficiently large sample of position-taking among the Clinton, Bush, and Obama Administrations to begin examining the empirical expectations implied by our theory. We turn now to these expectations, first detailing how we use our position-taking data to measure the constructs found in each such expectation.

## Methods and Measurement

In general, the empirical "tests" in this paper are more descriptive than inferential in nature. That is, as our account of interest polarization makes claims about the aggregate influence of partisan electoral competition on the interest community, measuring partisan competition cross-sectionally proves a difficult task. Thus, in general, we adopt an approach similar to Lee (2016) and track over-time empirical patterns that should obtain, if the pressures of partisan competition influence political patterns as we claim. In doing so, we make the assumption that the intensity of partisan competition (and resulting value of partisan message differentiation) has monotonically increased over time and structure our empirical investigations accordingly. As we discuss at greater length below, however, we provide some commentary on crosssectional measurement and empirical examinations of partisan competition at the issue level, which we are actively pursuing in our broader project.

Issue-level tests notwithstanding, our empirical expectations and examinations thereof proceed in the following manner. First, consistent with our claim that interest groups have increasingly aligned themselves with political parties as partisan competition has increased, we show that interest groups appear to have sorted themselves into ideological "teams," similar to members of Congress. Beyond sorting themselves ideologically, though, we also examine whether and to what extent the single dimension of conflict underlying American politics accurately characterizes groups' position-taking data over time. Second, we investigate the mechanism behind groups' partisan sorting. Consistent with our theory, we show that groups have expanded their position-taking beyond their "core" issue areas over time. Finally, we show that this diversification predicts the extent to which individual groups are well-characterized by a single dimension of conflict over time.

Before presenting these results in greater detail, we first describe the three primary measurements-over-time ideal points, unidimensional explanatory power, and position-taking diversity-underlying our empirical investigations.

## Characterizing interest group preferences over time

Our first, most fundamental descriptive claim states that, as partisan competition has increased over time, so too has the polarization of interests' revealed preferences. By polarization, we adopt a definition similar to previous scholarship, namely the combination of divergence of preferences and "sorting" into consistent teams or sides. In order to measure these distributional characteristics, however, we first require a summary measure that characterizes interest group preferences over time.

To generate such a measure, we scale our position-taking data jointly with roll call data, in order to generate an over-time version of IGscores. More so than for legislators, however, scaling interest groups in this fashion implies a number of empirical challenges. Among the most important such challenges is the relative sparsity of the data itself. That is, while we have captured a large number of new interest positions, groups are not required to take positions on any particular bill. Consequently, we take several steps to address the sparsity of our matrix. First and foremost, we aggregate our units of time from the year- to presidency-/administration-level. More specifically, we estimate IGscores for the Clinton, Bush, and Obama presidencies. Overall, we uncover position-taking activity for 701 groups in all three of these presidencies. However, we do not estimate scores for all 701 groups. Instead, we apply the k-core filtration from our original IGscores separately on each administration-specific roll call matrix. Taken together, this allows us to generate scores for 171 groups in all three presidencies. ${ }^{\square}$

Rather than adopting the dynamic scoring approach detailed by Martin and Quinn (2002), we opt instead to estimate in each administration separately. We do so in large part due to our empirical aims. Indeed, given that we are interested in examining how well a single dimension characterizes interest preferences in different time periods, we believe the dynamic priors underlying the Martin-Quinn approach may obfuscate this investigation. Fortunately, as previous investigations of the U.S. Congress have shown, members of Congress exhibit fairly small changes in their ideal points over time. Thus, our disjointed estimation should primarily leverage differences in group behavior over time, more so than legislator behavior. Formally, for each presidency $t$, we estimate a Bayesian IRT model of legislator roll call voting, where the probability that legislator $i$ casts a yea vote on roll $j$ is given by

$$
\operatorname{Pr}\left(y_{i j}=1\right)=\operatorname{Pr}\left(\beta_{j} \theta_{i}-\alpha_{j}+\epsilon_{i j}\right),
$$

where the quotient of the discrimination and difficulty parameters ( $-\frac{\alpha_{j}}{\beta_{j}}$ ) represent the cutpoint between yea and nay votes on item $j$ and $\theta_{i}$ represents legislator $i$ 's ideal point.

Using our scores, we measure polarization during each administration in a fashion similar to studies of legislative polarization. However, unlike partisan polarization among legislators, interest groups do not possess explicit partisan affiliations. Instead, we examine two specific aspects of the distribution of interest ideal points in each administration. First, we calculate the number of modes in the ideal point densities: if groups have sorted themselves in a fashion similar to members of Congress, one should expect to uncover

[^5]two prominent modes on the left- and right-hand sides of the distributions. Second, we measure the distance between these modes. We expect that both the prominence of and distance between these modes should increase over time, as partisan competition increases.

Unidimensional explanatory power. Among the most central findings of Poole and Rosenthal's extensive research agenda is their claim that the vast majority of congressional voting behavior may be aptly summarized by a single dimension of conflict. They attribute this finding to growing ideological disagreement between Republicans and Democrats, namely over governmental involvement in the economy. Others, such as Lee (2016), argue that these divisions are artificially accentuated (at least in part) by the prevalence of partisan conflict in American politics. Regardless, particularly in recent decades, the strong predictive power of unidimensional models (and the relatively small gains made by adding dimensions) do not suggest that members vote in idiosyncratic fashion based on geographic or even distributional concerns. Interest groups, however, are ostensibly more parochial than members of Congress. Indeed, rather than representing the interests of 700,000 citizens, interest groups with even the broadest of scopes represent specific communities with well-defined topical interests. Inasmuch as groups pragmatically pursue these often-parochial interests, joining voting coalitions episodically and on a bill-by-bill basis, we should not expect a single dimension of conflict to accurately characterize interest groups' preferences. Insofar as groups have aligned themselves with one party or the other, however, a unidimensional policy space may aptly summarize groups' position-taking activity. That is, by taking more positions that are consistent with the broad messages underlying one major party or the other, interest groups should begin to exhibit position-taking patterns more similar to members of Congress than parochial, pragmatic interests.

To capture the explanatory power of unidimensionality in our position-taking data, we turn to a series of measures previously used in Poole and Rosenthal's work. More specifically, in scaling legislators' and groups' preferences in each administration, we compare differences between one- and two-dimensional correct classification rates, group/legislator-level proportional reduction in error (PRE), and aggregate proportional reduction in error. Correct classification rates are the simplest of these measures, simply capturing the percentage of voting decisions accurately predicted by our preference scaling. More specifically, to capture the relative efficacy of a unidimensional model at summarizing group or legislator $i$ 's preferences in during presidency $t$, we measure

$$
d_{i t}^{c}=C_{i t}^{2}-C_{i t}^{1},
$$

where $C_{i t}^{2}$ and $C_{i t}^{2}$ represent the difference in correct classification rates in the two- and one-dimensional scalings, respectively. ${ }^{\text {8 }}$

In contrast to correct classification rates, proportional reduction in error compares our models' predictive power to a naive model of voting/position-taking. Under this naive model, legislators and groups are assigned "predicted" votes equal to the majority outcome for each item. In this way, PRE effectively downweights lopsided votes, which Poole and Rosenthal argue are comparatively easier to predict that competitive ones:

$$
P_{i t}=\frac{\text { Errors }_{i t}^{M a j}-\sum \text { Errors }_{i t}^{\text {Model }}}{\sum \text { Errors }_{i t}^{M a j}}
$$

To compare the relative effectiveness by which one- and two-dimensional models characterize groups' and legislators preferences, we then measure

$$
d_{i t}^{p}=P_{i t}^{2}-P_{i t}^{1},
$$

or the difference in PRE between the one- and two-dimensional models, for group $i$ and during presidency $t$. The aggregate proportional reduction in error, then, is used only to compare the general fit of one- and two-dimensional models during presidency $t$ :

$$
A P R E_{t}=\frac{\sum_{i=1}^{N}\left[\sum \text { Errors }_{i t}^{\text {Maj }}\right]-\sum_{i=1}^{N}\left[\sum \text { Errors }_{i t}^{\text {Model }}\right]}{\sum_{i=1}^{N}\left[\sum \text { Errors }_{i t}^{\text {Maj }}\right]}
$$

where $N$ equals the number of legislators and groups in presidency $t$.

## Position-Taking Diversity

According to our theory, position-taking diversification serves as an important mechanism underlying interest group polarization and partisanship. That is, while groups may generally prefer to pragmatically pursue their idiosyncratic interests, the pressures of partisan competition and primacy of messaging may encourage them to take partisan-consistent positions in issue areas only peripheral to their core interests. If so, position-taking diversification should not only track increases in partisan competition and, on average, rise over time, but it should predict a reduction in groups' position-taking idiosyncrasies.

[^6]To capture the primary issue area covered by a piece of legislation, we make use of the Comparative Agendas Project's issue codes, as gathered by Adler and Wilkerson (2006). With these codes, we follow Fagan, McGee and Thomas (2019) and measure the position-taking diversity of groups' issue portfolios with a metric that is relatively robust to differences in the underlying number of measurements or items in the data. Unlike, Fagan, McGee and Thomas (2019), however, we measure group $i$ 's Inverse Simpson Index during group $t$ (instead of Shannon's H), due to the intuitiveness of its scale. Thus, given our set of issues $j$, we measure group $i$ 's position-taking diversity in presidency $t, D_{i t}$, as

$$
D_{i t}=\frac{1}{\lambda_{i t}}=\frac{1}{\sum_{j} p_{j}^{2}}
$$

where $p$ represents the proportional abundance of issue $j$ in $i$ 's overall position-taking profile.

## Results

We use each of these measurements to test the three main empirical expectations drawn from our account of interest polarization and sorting in the era of insecure majorities. Overall, we find empirical patterns consistent with our developmental claims regarding partisan electoral competition and interest group sorting and polarization. Indeed, as partisan competition heightens and partisan messaging grows in importance, interest groups have simultaneously grown more polarized and issue-diverse.

### 2.2 Interest Polarization Over Time

As we describe above, we generate presidency-specific IGscores for 2,768 interest groups in total, including 171 groups that appear in all three presidencies (and meet our overlap thresholds). We plot the distributions of interest group and legislator IGscores in the Clinton, Bush, and Obama presidencies in Figure 3. As the figure depicts, the preference distribution of interest groups appears to have evolved considerably throughout the observed time period. Indeed, whereas the Clinton era features a distribution of interest groups (in yellow) with single mode near the center of ideological distribution of legislators, the Bush and Obama administrations feature modes on the left- and right-hand sides of the spectrum, near the left- and right-hand modes of the legislator distributions (in blue). Moreover, although the distance between left and right does not grow appreciably between the Bush and Obama presidencies, the distinctiveness of the left- and rightward modes becomes more apparent.

These patterns are broadly consistent with our claims about the growth of interest polarization over

Figure 3: Distributions of estimated ideal points (posterior means) for interest groups and legislators for each presidential administration in our data.


Notes: Distributions of the 171 groups that appear in all three presidencies are presented in Supplemental Information D.
time. Indeed, although legislators clearly exhibit polarization throughout each of the three depicted presidencies, interest groups do not become clearly "sorted" in our data until the Obama Administration. That is, while members of Congress may already have begun to adapt to the partisan pressures of insecure majorities by the 1990s, interest groups' polarization at least appears to be more delayed. Of course, given that our data collection is both ongoing and more sparse in earlier periods, we caution against drawing strong conclusions from this depiction. Nevertheless, at the very least, the distribution of ideal points recovered from our new data are not inconsistent with our claims about interest sorting in U.S. politics. Whether or not these patterns reflect changes in the scope of interest group position-taking-and not merely changes in the legislative agenda-requires additional tests.

### 2.3 Unidimensional Conflict and Interest Position-Taking Over Time

While interest sorting into leftward and rightward modes may well reflect the rise of interest partisanship that we and Krimmel describe, it is nevertheless possible that seemingly "extreme" interests could pragmatically ally themselves with so-called strange bedfellows and simultaneously retain their (noisily fitted) leftward or rightward ideal point. Thus, in our next series of exercises, we examine not just the location of groups' ideal points but, but the efficacy with which they predict groups' actual position-taking behavior. To do so, Figure 4 plots the Aggregate Proportional Reduction in Error among legislators and groups, for both the one- and two-dimensional versions of our administration-level IGscores. ${ }^{\text {. }}$

As the figure summarizes, the explanatory power of the unidimensional model increases for both legislators and groups over time. While we do not have strong expectations about the suitability of a single dimension for legislators, the increase unidimensional APRE over time, consistent with our account of interest polarization. Moreover, with regard to the two-dimensional model, APRE moderately decreases for interest groups over time, while it increases for legislators. Here again, the relative decrease in explanatory power of a multidimensional model (among interest groups) is at least weakly consistent with our claims about interest polarization. Inasmuch as groups pragmatically form issue-specific coalitions in support of and/or opposition to individual pieces of legislation, multi-dimensional models should perform well among interest groups. Not only does the two-dimensional model perform relatively poorly overall, but it certainly does not improve over time for interest groups.

[^7]Figure 4: Change in Average Proportional Reduction in Error for legislators and interest groups across presidential administrations

Aggregate Proportial Reduction in Error


Aggregate Proportial Reduction in Error (Complete Cases)
Interest Groups Legislators


Notes: APRE statistics in the top panel reflect all scored interest groups and legislators, while figures in the bottom panel reflect APRE statistics for legislators and interest groups present in all three presidential administrations.

### 2.4 Position-Taking Diversity Over Time

The above investigations have provided evidence about groups' revealed preferences that are consistent with our account of interest group partisanship. However, our account ultimately hinges on changing patterns in the position-taking underlying groups' ideal points. More specifically, if the mechanism we argue underlies interest polarization is correct, groups should exhibit a broad diversification of their issue portfolios over time. That is, as partisan competition and the importance of messaging increase, groups may feel pressure to take positions outside their core areas of interest.

Table 2 provides some preliminary evidence that such a diversification has occurred. Indeed, a large majority of groups took positions on a more diverse set of issues during the Bush than in the Clinton Administrations, and an even larger diversified between the Clinton and Obama Administrations. Diversification appears to have slowed between the Bush and Obama Administrations, but a majority of organizations nevertheless diversified their position-taking portfolios between the two presidencies.

## Table 2: Share of organizations that are more diverse during subsequent presidential administrations.

| Presidencies | Share more diverse |
| :--- | :---: |
| Bush43 $>$ Clinton | 73.04 |
| Obama $>$ Clinton | 83.17 |
| Obama $>$ Bush43 | 62.34 |

We urge caution in over-interpreting these summary statistics, however, for several reasons. First and foremost, we are aware that our differential ability to capture groups' position-taking activities across presidencies could obfuscate our ability to decipher issue diversification over time. Second, inasmuch as multi-issue, omnibus legislation has become more common over time, it is possible that issue diversification could be, in some sense, mechanically inevitable. With regard to this latter problem, we do not yet have a compelling solution, at least in the aggregate. With regard to the former, however, we attempt to address our data collection challenges by splitting our groups in subset of "high," "medium," and "low" levels of position-taking activity. We plot issue diversification patterns across these categories over time in Figure 5. As the figure depicts, groups in all three categories exhibit issue diversification over time.

To be clear, we believe that the interpretability of these figures will improve as our data collection expands. Nevertheless, with the available data, we observe temporal trends that are consistent with the diversification mechanism underlying our claims about interest polarization.

Figure 5: Diversity of position-taking by interest groups during each presidential administration in our data.


Notes:

## Combining Polarization, Unidimensionality and Diversification: Does Issue Expansion Predict Interest Sorting?

In our final set of empirical examinations, we take some initial steps toward combining our predictions regarding polarization, unidimensionality, and diversification into group-level predictions consistent with our theory. More specifically, we examine whether a group's diversification patterns themselves predict group polarization and the reliability with which their position-taking may be summarized via a single dimension. To do so, we run a series of models that take the following general form:

$$
d_{i t}^{p}=\mu+\alpha_{i}+\beta_{1} D_{i t}+\mathbf{X} \beta+\epsilon_{i t}
$$

where $d_{i t}^{p}$ represents either extremity ${ }^{10}$ or relative two-dimensional explanatory power, $D_{i t}$ represents a group's change in position-taking diversity from the previous presidency, and $\alpha_{i}$ represents group-level fixed effects. With this within-group design, we attempt to examine whether portfolio diversification itself positively predicts unidimensionality.

Table 3 summarizes our results for models of unidimensional predictive power. As the table illustrates, we do not uncover much evidence for a relationship between interest diversity and unidimensional predictive power. While some models point in the expected (positive) direction, none of these results reach standard levels of statistical significance. As with our other results that are consistent with our theory, we hesitate to overinterpret these results. However, it is entirely possible that, as our position-taking data collection expands, these results may change.

Unlike our models of unidimensional explanatory power, Figure 6 depicts results from our preference extremity regressions that are consistent with our expectations. That is, groups lie farther to the left or right of the ideological spectrum when they take positions on a more diverse set of issues. Under our account, such a result is consistent our assertion that competitive partisan pressures encourage interest groups to sort themselves to the left or right along the unidimensional preference spectrum.

## 3 Discussion

In this paper, we have found empirical patterns that are largely consistent with our expectations: over time, interest groups take more diverse sets of positions, their activity is better captured by a single ideological

[^8]Table 3: Models of the relationship between ideal fit and position-taking diversity

|  | PRE 1Dim |  | PRE_1dplus |  |
| :--- | :---: | :---: | :---: | :---: |
| Diversity | 0.107 | 0.152 | $-0.665^{* * *}$ | -0.401 |
|  | $(0.136)$ | $(0.223)$ | $(0.247)$ | $(0.405)$ |
| Bush43 | -0.610 | 0.032 | $2.470^{* *}$ | $4.270^{* *}$ |
|  | $(0.541)$ | $(1.000)$ | $(0.982)$ | $(1.813)$ |
| Obama/Trump | 0.785 | 0.520 | 1.893 | 2.266 |
|  | $(0.662)$ | $(1.109)$ | $(1.201)$ | $(2.010)$ |
| Number of Positions | -0.005 | -0.006 | 0.002 | 0.001 |
|  | $(0.004)$ | $(0.004)$ | $(0.008)$ | $(0.008)$ |
| Diversity:Bush43 |  | -0.128 |  | -0.419 |
|  |  | $(0.209)$ |  | $(0.379)$ |
| Diversity:Obama/Trump |  | 0.034 | -0.170 |  |
|  |  | $(0.228)$ |  | $(0.414)$ |
| Org FE | Y |  | Y |  |
| N | 513 | 513 | Y | 513 |
| R-squared | 0.352 | 0.353 | 0.400 | 0.403 |
| Adj. R-squared | 0.018 | 0.015 | 0.091 | 0.090 |
| Residual Std. Error | $4.315(\mathrm{df}=338)$ | $4.322(\mathrm{df}=336)$ | $7.828(\mathrm{df}=338)$ | $7.834(\mathrm{df}=336)$ |
| ${ }^{* * *}$ p $<.01 ;{ }^{* *} \mathrm{p}<.05 ;{ }^{*} \mathrm{p}<.1$ |  |  |  |  |

Figure 6: Coefficient plot of model of ideological extremism among interest groups Marginal effects on interest group extremism


Notes: Full model in Supplemental Information C.
dimension, and their revealed preferences have polarized. These findings comport with our theory of strategic position-taking, by which interest groups signal their viability as co-partisan allies.

However, these results are still incomplete in several important respects that we believe merit further investigation. First, and perhaps most importantly, the trends we have documented here are largely monotonic secular trends in interest group activity. We have noted increases over time in 1) position-taking diversification, 2) interest group polarization, and 3) the extent to which a single dimension captures interest group activity. While these trends are consistent with our theoretical expectations, there may be a variety of other explanations for these findings. In order to assess whether these large scale trends are the result of the mechanisms we theorize, we plan to leverage group- and issue-level heterogeneity to a much larger extent than we have here.

More specifically, the logic we outline above generates different expectations among interest groups with different core issue focuses. If members of Congress are concerned with whether their potential interest group allies are consistent co-partisans, we expect this tendency to be especially strong on highlypoliticized issues. As such, we hypothesize that organizations working in highly-politicized issues will face greater pressure to engage in the kinds of strategic, co-partisan signalling that we describe above-more so than groups working on comparatively bipartisan or non-partisan issues.

Figure $\overline{7}$ shows how trends in position-taking diversification differ, depending on interest groups' original area of activity. Here, each group's core issue area is determined by taking the modal issue on which they took positions during the "Clinton/Bush41" time period in our data. We see particularly strong trends towards diversification among highly active organizations in labor, education, environment, and government operations. This seems broadly consistent with our expectations that organizations in more politicized issue areas will diversify more over time. However, in future work, we plan to adapt Gentzkow, Shapiro and Taddy (2019) to develop an issue-specific, temporal measure of partisan conflict. Using this, we will more rigorously evaluate the dynamic temporal relationship between political conflict in a group's core area, interest group polarization, and position-taking diversification.

As Figure $\rceil$ shows, there remain several issues for which we have relatively few organizations active across all three time periods. This is driven primarily by sparsity in our position-taking data from before the Bush and Obama Administrations. Fortunately, we are actively gathering more position-taking from this period using the sources described earlier. As we continue to gather more such data, this should, in turn, increase the number of organizations for which we are able to produce ideal point estimates over time. This should enable us to test additional cross-issue hypotheses in future work.

Figure 7: Change in position-taking diversity over time by topic. Position-taking diversity increases over time


Notes: This chart displays diversity trends based on the 701 interest groups that engaged in position-taking activity across all three time periods. High, medium and low activity organizations determined by splitting by tercile on total position-taking.

## 4 Conclusion

In this article, we have examined how the strategies organized interest groups adopt may change as competition between the two major parties intensifies. To do so, we introduce over-time estimates of interest groups' preferences, as well as the diversity of the issues on which they take public positions. We show that as party competition intensifies, interest groups have tended to move more toward the left and right, reveal preferences better characterized by the dominant dimension of American political conflict, and diversify the set of issues on which they advocate. Taken together, these findings are consistent with our theory that periods of intense party competition induce legislators to condition a group's access, and subsequent influence, on its reputation for being a loyal partisan.

Future scholarship on interest group partisanship could proceed in several directions. While we have evinced a broad trend toward increasing partisanship, polarization, and issue diversification here, all three are likely to vary across different group types, issue areas, and periods. Teasing apart these more granular differences will allow for more precise understanding of what induces some groups, but not all, to become partisan. In particular, while presidential administration is a justifiable proxy for party competition within the time period covered by our data, we believe that an issue-level measure of party competition will allow testing of whether the most partisan issues generate the strongest incentives for groups to diversify their issue agendas, polarize their revealed preferences, and align with one of the major parties.

Regardless, our findings begin to complicate the traditional view of lobbying as based on relationships with individual legislators. To the extent that party competition incentivizes interest group partisanship as well, groups trade the ability to form ad-hoc, cross-partisan coalitions for a generally positive reputation with one party and a negative reputation with the other. This can mean that a group's influence is conditional on the collective reputation of the party to which it is aligned, and so we would expect such groups to focus on propping up their party and attempting to ensure its hold on power. In short, interest groups transition from circumventing congressional partisanship to reinforcing it. Combined with partisan polarization in state governments and the news media, interest groups form a "meso-institutional environment" (c.f., Pierson and Schickler, 2019) in which partisan warfare becomes self-perpetuating.

More broadly, our findings can inform how scholars think about the relationship between revealed and sincere preferences. A potential critique of the present analysis (and others that rely on publicly taken interest group positions) (e.g., Lorenz, 2020; Crosson, Furnas and Lorenz, Forthcoming; Fagan, McGee and Thomas, 2019; Thieme, Forthcoming) is that interest groups may dissemble in their public positions,
in order to maintain relationships with the parties, the mass public, or some other political actor. In this case, preferences revealed in public position-taking are at best noisy, and at worst biased, indicators of sincere preferences. However, even insofar as this holds generally, that distinction between sincere and revealed preferences does not make the latter unimportant. A group's public position-taking on a bill may affect that bill's legislative advancement (Lorenz, 2020), even if the group does nothing but take that public position, because political actors will infer things about the content or viability of the bill from the set of groups expressing a position on it. Moreover, insofar as a group's public position-taking is used to signal alignment with one of the parties, the group's efforts strengthen that party. That this is reflected in an ideal point that shifts toward that party's end of the distribution may or may not reflect the group's "actual" preferences, but it does reflect the ends toward which the group's efforts are nonetheless directed.

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## Supplemental Information

## A: Additional examples of position-taking data sources

Figure 1: Additional example of position-taking in press-release form


In support of the legislation, National Treasury Employees Union (NTEU) President Colleen M. Kelley called paid parental leave "a much-needed and valuable benefit" and added it would help in federal recruiting and retention efforts. The legislation is also supported by the American Federation of Government Employees, AFL-CIO, who say this legislation will help federal employees meet the dual demands of work and family.
tht their new child. We stand here united again today as we mate the same pledge to
-deral employees we will fight until you are afforded the rights to spend time with your
dily without penalties," added Mis. Maloney.
=**

Figure 2: Additional example of position-taking in Congressional Record


Figure 3: Additional example of position-taking in Congressional Record


## B: Individual PRE Statistics for Groups and Legislators

Figure 4: Proportional Reduction in Error for one and two dimensional ideal points for interest groups and legislators during each presidential administration in our data.

## PRE distributions for interest groups and legislators



Notes: Of 8,742 total ideal points 329 (or 3.8 percent have a PRE below -10 . The plurality (146) of these are two dimensional scores for interest groups during the Obama/Trump period.

Table 1: Number of legislators/interest groups with PRE below -10.

| pres | n |
| :--- | ---: |
| Clinton/Bush41, Interest Groups | 8 |
| Clinton/Bush41, Legislators | 3 |
| Bush43, Interest Groups | 134 |
| Bush43, Legislators | 2 |
| Obama/Trump, Interest Groups | 146 |
| Obama/Trump, Legislators | 36 |

Figure 5: Proportional Reduction in Error for one and two dimensional ideal points for interest groups and legislators during each presidential administration in our data.

## PRE distributions for interest groups and legislators (Complete Cases)



Notes: Of 2,484 total ideal points 43 (or 1.7 percent have a PRE below -10. The plurality (17) of these are two dimensional scores for interest groups during the Bush 43 period.

## C: Full Model Tables and Additional Regression Analyses

Table 2: Diversity and Extremism among groups

|  | extremism |  |
| :--- | :---: | :---: |
|  | felm | panel <br> linear |
| Diversity | $0.045^{* *}$ | 0.022 |
| Number of Positions | $(0.020)$ | $(0.020)$ |
|  | -0.001 | -0.001 |
| Bush43 | $(0.001)$ | $(0.001)$ |
|  | $-0.149^{*}$ |  |
| Obama/Trump | $(0.081)$ |  |
|  | $-0.289^{* * *}$ |  |
| Constant | $(0.099)$ | $-0.113^{*}$ |
|  |  | $(0.062)$ |
| Model | Org FE | FD |
| N | 513 | 342 |
| R-squared | 0.629 | 0.010 |
| Adj. R-squared | 0.438 | 0.004 |
| Residual Std. Error | $0.648(\mathrm{df}=338)$ |  |
| F Statistic |  | $1.637(\mathrm{df}=2 ; 339)$ |
| $* * * p<.01 ;{ }^{* *} \mathrm{p}<.05 ;{ }^{*} \mathrm{p}<.1$ |  |  |

Table 3: Models of the relationship between ideal fit and extremism

|  | PRE 1Dim |  | PRE 1Dim - PRE 2Dim |  |
| :--- | :---: | :---: | :---: | :---: |
| Extremism | 0.379 | 0.008 | -0.226 | -0.106 |
|  | $(0.359)$ | $(0.426)$ | $(0.659)$ | $(0.786)$ |
| Bush43 | -0.389 | $-1.868^{* *}$ | 1.234 | 1.244 |
|  | $(0.481)$ | $(0.876)$ | $(0.882)$ | $(1.616)$ |
| Obama/Trump | $1.090^{*}$ | 0.793 | 0.398 | 1.288 |
|  | $(0.595)$ | $(0.971)$ | $(1.092)$ | $(1.792)$ |
| Number of Positions | -0.005 | -0.004 | -0.002 | -0.002 |
|  | $(0.004)$ | $(0.004)$ | $(0.008)$ | $(0.008)$ |
| Extremism:Bush43 |  | $1.135^{* *}$ |  | -0.005 |
|  | $(0.562)$ |  | $(1.037)$ |  |
| Extremism:Obama/Trump |  | 0.177 | -0.796 |  |
|  |  | $(0.670)$ |  | $(1.236)$ |
| Org FE | Y | Y |  |  |
| N |  | 513 | 5 | 513 |
| R-squared | 513 | 0.361 | 513 | 0.388 |
| Adj. R-squared | 0.352 | 0.026 | 0.387 | 0.072 |
| Residual Std. Error | 0.019 | $4.296(\mathrm{df}=336)$ | $7.910(\mathrm{df}=338)$ | $7.928(\mathrm{df}=336)$ |
| $* * * \mathrm{p}<.01 ;{ }^{* *} \mathrm{p}<.05 ;{ }^{*} \mathrm{p}<.1$ |  |  |  |  |
|  |  |  |  |  |

## D: Additional descriptive information on issue diversification and group polarization

Table 4: Share of organizations that are more diverse during subsequent presidential administrations.

| Sector | Bush43 <br> $>$ Clinton | Obama/Trump <br> $>$ Clinton | Obama/Trump <br> $>$ Bush43 | Number of <br> Organizations |
| :--- | :---: | :---: | :---: | :---: |
| Ideology/Single-Issue | 74.32 | 86.64 | 62.67 | 291.00 |
| Other | 73.96 | 79.17 | 54.17 | 192.00 |
| Health | 62.60 | 80.49 | 64.23 | 123.00 |
| Misc Business | 77.78 | 92.59 | 66.67 | 81.00 |
| Labor | 82.35 | 86.27 | 66.67 | 51.00 |
| Unknown | 80.43 | 67.39 | 50.00 | 45.00 |
| Agribusiness | 77.27 | 95.45 | 84.09 | 44.00 |
| Communic/Electronics | 93.55 | 87.10 | 70.97 | 31.00 |
| Energy/Nat Resource | 77.42 | 96.77 | 83.87 | 31.00 |
| Lawyers \& Lobbyists | 96.30 | 96.30 | 74.07 | 27.00 |
| Finance/Insur/RealEst | 76.92 | 84.62 | 61.54 | 26.00 |
| Transportation | 65.22 | 86.96 | 65.22 | 23.00 |
| Construction | 84.21 | 94.74 | 73.68 | 19.00 |
| Defense | 50.00 | 100.00 | 100.00 | 4.00 |
| Non-contribution | 100.00 | 100.00 | 100.00 | 1.00 |

Figure 6: Distributions of Organizations in All Three Presidencies
$\square$ Interest Groups $\square$ Legislators

## Clinton



## E: Models of fit using Correct Classification Percentage instead of Proportional Reduction in Error

Table 5: Models of the relationship between ideal fit and extremism

|  | Correct Classification Perc |  | 1D Correct Classification Perc <br> - 2D Correct Classification Perc |  |
| :---: | :---: | :---: | :---: | :---: |
| Extremism | 2.801*** | 0.355 | 4.691*** | $4.530^{* * *}$ |
|  | (0.894) | (1.039) | (1.296) | (1.555) |
| Bush43 | -1.027 | $-7.017^{* * *}$ | 2.054 | 2.053 |
|  | (1.212) | (2.158) | (1.757) | (3.230) |
| Obama/Trump | -0.312 | -8.587*** | 3.136 | 1.936 |
|  | (1.499) | (2.362) | (2.173) | (3.535) |
| Number of Positions | -0.004 | -0.005 | -0.004 | -0.004 |
|  | (0.010) | (0.010) | (0.015) | (0.015) |
| Extremism:Bush43 |  | 4.452*** |  | -0.004 |
|  |  | (1.352) |  | (2.023) |
| Extremism:Obama/Trump |  | 6.898*** |  | 1.074 |
|  |  | (1.593) |  | (2.385) |
| $\overline{\text { Org FE }}$ | Y | Y | Y | Y |
| N | 500 | 500 | 500 | 500 |
| R-squared | 0.503 | 0.534 | 0.425 | 0.426 |
| Adj. R-squared | 0.236 | 0.279 | 0.117 | 0.113 |
| Residual Std. Error | $10.484(\mathrm{df}=325)$ | $10.185(\mathrm{df}=323)$ | $15.202(\mathrm{df}=325)$ | 15.243 ( $\mathrm{df}=323$ ) |

$$
{ }^{* * *} \mathrm{p}<.01 ;{ }^{* *} \mathrm{p}<.05 ;{ }^{*} \mathrm{p}<.1
$$

Table 6: Models of the relationship between ideal fit and position-taking diversity

|  | Correct Classification Perc |  | 1D Correct Classification Perc <br> - 2D Correct Classification Perc |  |
| :---: | :---: | :---: | :---: | :---: |
| Diversity | $\begin{gathered} 0.041 \\ (0.339) \end{gathered}$ | $\begin{aligned} & -0.482 \\ & (0.561) \end{aligned}$ | $\begin{gathered} -0.817^{*} \\ (0.491) \end{gathered}$ | $\begin{aligned} & -1.066 \\ & (0.811) \end{aligned}$ |
| Bush43 | $\begin{aligned} & -1.466 \\ & (1.360) \end{aligned}$ | $\begin{aligned} & -1.465 \\ & (2.557) \end{aligned}$ | $\begin{gathered} 2.868 \\ (1.974) \end{gathered}$ | $\begin{aligned} & 6.209^{*} \\ & (3.700) \end{aligned}$ |
| Obama/Trump | $\begin{aligned} & -1.142 \\ & (1.660) \end{aligned}$ | $\begin{gathered} -5.353^{*} \\ (2.773) \end{gathered}$ | $\begin{gathered} 3.593 \\ (2.408) \end{gathered}$ | $\begin{aligned} & -1.575 \\ & (4.011) \end{aligned}$ |
| Number of Positions | $\begin{aligned} & -0.005 \\ & (0.010) \end{aligned}$ | $\begin{aligned} & -0.012 \\ & (0.011) \end{aligned}$ | $\begin{aligned} & -0.002 \\ & (0.015) \end{aligned}$ | $\begin{aligned} & -0.012 \\ & (0.016) \end{aligned}$ |
| Diversity:Bush43 |  | $\begin{gathered} 0.223 \\ (0.527) \end{gathered}$ |  | $\begin{aligned} & -0.445 \\ & (0.762) \end{aligned}$ |
| Diversity:Obama/Trump |  | $\begin{aligned} & 0.999^{*} \\ & (0.567) \end{aligned}$ |  | $\begin{gathered} 1.101 \\ (0.821) \end{gathered}$ |
| $\overline{\text { Org FE }}$ | Y | Y | Y | Y |
| N | 500 | 500 | 500 | 500 |
| R-squared | 0.488 | 0.494 | 0.407 | 0.418 |
| Adj. R-squared | 0.213 | 0.219 | 0.090 | 0.101 |
| Residual Std. Error | $10.641(\mathrm{df}=325)$ | $10.603(\mathrm{df}=323)$ | $15.440(\mathrm{df}=325)$ | $15.340(\mathrm{df}=323)$ |

Figure 7: Marginal effect of extremism on the correct classification percentage of interest groups across presidential administrations

## Marginal effect of extremism on CCP

Conditional on presidential administration


Figure 8: Marginal effect of extremism on the the difference in correct classification percentage from one dimensional and two dimensional interest groups ideal points across presidential administrations

## Marginal effect extremism on [1Dim CCP - 2Dim CCP]

Conditional on presidential administration


F: First Difference Models

Table 7: First difference models of proportional reduction in error

|  | PRE | 1Dim PRE <br> - 2Dim PRE | PRE | 1Dim PRE <br> -2Dim PRE |
| :--- | :---: | :---: | :---: | :---: |
| Extremism | 0.427 | -0.260 |  |  |
| Diversity | $(0.440)$ | $(0.709)$ |  |  |
|  |  |  | 0.019 | $-0.640^{* *}$ |
| Number of Positions | -0.004 | -0.007 | -0.005 | $-0.006)$ |
|  | $(0.006)$ | $(0.009)$ | $(0.006)$ | $(0.009)$ |
| Constant | 0.533 | 0.406 | 0.474 | 1.230 |
|  | $(0.461)$ | $(0.744)$ | $(0.502)$ | $(0.801)$ |
| N | Y | Y | Y | Y |
| N | 342 | 342 | 342 | 342 |
| R-squared | 0.005 | 0.002 | 0.002 | 0.020 |
| Adj. R-squared | -0.001 | -0.004 | -0.004 | 0.014 |
| F Statistic (df = 2; 339) | 0.785 | 0.340 | 0.320 | $3.429^{* *}$ |

$$
{ }^{* * *} \mathrm{p}<.01 ;{ }^{* *} \mathrm{p}<.05 ;{ }^{*} \mathrm{p}<.1
$$

Table 8: First difference models of correct classification percentage

|  | CCP | 1Dim CCP <br> -2Dim CCP | CCP | 1Dim CCP <br> -2Dim CCP |
| :--- | :---: | :---: | :---: | :---: |
| Extremism | $3.556^{* * *}$ <br> $(0.952)$ | $5.615^{* * *}$ <br> $(1.379)$ |  |  |
| Diversity |  |  | -0.189 | $-1.014^{* *}$ |
|  |  |  | $(0.348)$ | $(0.503)$ |
| Number of Positions | -0.003 | -0.009 | -0.006 | -0.012 |
|  | $(0.012)$ | $(0.018)$ | $(0.012)$ | $(0.018)$ |
| Constant | -0.147 | 1.610 | -0.313 | 2.249 |
|  | $(1.003)$ | $(1.453)$ | $(1.108)$ | $(1.602)$ |
| N | FD | FD | FD | FD |
| N | 329 | 329 | 329 | 329 |
| R-squared | 0.042 | 0.050 | 0.002 | 0.014 |
| Adj. R-squared | 0.036 | 0.044 | -0.004 | 0.008 |
| F Statistic (df $=2 ; 326)$ | $7.101^{* * *}$ | $8.582^{* * *}$ | 0.269 | 2.316 |
| 0.269 | 2.316 |  |  |  |
| ${ }^{* * *}$ p $<.01 ;{ }^{* *} \mathrm{p}<.05 ;{ }^{*} \mathrm{p}<.1$ |  |  |  |  |


[^0]:    *The authors thank the small army of research assistants who coded the Congressional Record, congress-members' press releases, and other sources for interest group positions on legislation. These have included: from the University of NebraskaLincoln, Jake Althouse, Jasmine Cashin, Erin Kruger, Sheridan Macy, and Morgan Penry; from the University of Michigan, Ciara Nolan, James Aidala, Brandon Marting, and Prisha Grover; and from Trinity University, Pyar Seth and Christopher Fanick. The authors also wish to thank VoxGov for its generosity and cooperativeness in data provision and support.
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[^1]:    ${ }^{1}$ For an application of this logic in the realm of campaign finance, see Li (2018).

[^2]:    ${ }^{2}$ This would not necessarily hold in all periods of American history. In future iterations of this project, we plan to mitigate the need for this assumption by using a more direct measure of party competition.

[^3]:    ${ }^{3}$ Given that we make use of some generously shared data from other authors, we hesitate to make claims about the scope of our original contribution. However, to date, our efforts have compiled over 57,000 interest group positions not previously found in the MapLight data.
    ${ }^{4}$ We choose 2006 so as to generate at least some amount of overlap between our data and MapLight's. Doing so allows us to assess whether major differences between the datasets exist.
    ${ }^{5}$ In practice, while we have focused our own data collection in the year 2006 and before, our incorporation of Craig's Dear Colleague data (available as replication data for Box-Steffensmeier, Christenson and Craig, 2019) generated some positions between the years 2006 and 2010, beyond what MapLight had previously recorded.

[^4]:    ${ }^{6}$ We choose this time period in part due to Krimmel (2017) historical investigation of interest partisanship, as well as Lee (2016) account of the rise of insecure majorities.

[^5]:    ${ }^{7}$ This number is much larger if one counts groups with a score in any administration, for a total of approximately 2,768 groups.

[^6]:    ${ }^{8}$ Given the advantages of PRE and APRE, we focus exclusively on those measures of fit moving forward. However, we present results for correct classification rates in Supplemental Information E. These results are substantively very similar to the results we present below for PRE and APRE.

[^7]:    ${ }^{9}$ See Figures 1 and 2 in Supplemental Information B for a plot of individual PREs for each group and legislator.

[^8]:    ${ }^{10}$ We measure extremity as a group's absolute distance from the median of groups appearing in all three presidencies (as this value does not change much across our three administrations). However, our results are substantively similar when using other measures.

