Interest Group Competition and Coalition Formation

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Abstract

This paper investigates how interest group competition, a state of conflicting policy preferences stemming from how organizational memberships are defined, can resolve into conflict or cooperation. The strategic choices of competing lobbyists are modeled as the results of a trade-off between the need to represent members, please legislators, and the additional advocacy resources they hope to gain by agreeing to form coalitions with their competitors rather than fight them in resource-draining advocacy conflicts. Hypotheses derived from the model are tested with data from interviews with lobbyists on six issues taken up by the U.S. Congress from 1999 to 2002. The results suggest that while group members do have some limited power to constrain the policy positions taken on issues by their lobbyists, it is primarily the pressures from legislators and competitor groups that push lobbyists into collectively supporting coalition positions different from those desired by their members.

The size and ideological diversity of the American interest group community has steadily grown over the last few decades (Walker 1983; Schlozman and Tierney 1986; Baumgartner and Leech 2001), with participation in private organizations, though "thin," appearing to be more extensive than once thought (Verba et al. 1996). Considering that a greater range of public interests are now making demands on government, researchers are starting to suggest that interest group politics may have become significantly more competitive, and not only between the citizens groups advocating for collective outcomes and economic groups seeking selective policy rewards (McFarland 1984; Berry 1999). If so, then scholars need a clearer understanding of what it means to speak of group competition. Can the concept be measured? Must it lead to advocacy conflicts between organizations lobbying Congress, or can it be overcome and replaced by cooperation as the coalition literature suggests (e.g., Hojnacki 1997; Hula 1999)? These are questions as yet unanswered, but if group competition is becoming a regular feature of American politics, then it is important that we try to clearly understand its sources and implications.

In this paper I argue that interest group competition exists when a potential policy outcome serving the interests of one group's members is perceived to be harming those of another. The implication of this definition, however, is that joining coalitions require lobbyists for competing groups to put aside their members' differences in order to work together rather than fight. Why would they risk angering their members this way? Data from 83 interviews with lobbyists working on six issues shows how the need to balance pressures from their members, the legislators on whom they depend for access, and the resources other lobbyists use to threaten or entice them, shapes their decisions regarding how great a compromise can be made in order to form coalitions. Although the model is relatively simple and the empirical results tentative, it creates a foundation for future work on the causes and consequences of group competition.

Perspectives on Interest Group Competition

Competition exists when the wants or desires of one actor can only be realized at another's expense (Schelling 1962; Axelrod 1967), and although it abounds in elections, scholars have long doubted its prevalence in interest group politics (e.g., Lowi 1969). Salisbury (1990), however, argues that the growth and diversification of the group community over the last several decades, well documented by Walker (1983), Schlozman and Tierney (1986), and Baumgartner and Leech (2001), has fundamentally changed how advocacy organizations interact. Few advocates today, he argues, have the luxury of developing strategies without trying to anticipate how lobbyists for other organized interests will respond. Lobbyists do appear more likely to cooperate in coalitions today than in the past (Hula 1999), or to break old policy monopolies by redefining how issues are perceived by the public and using "outsider" tactics such as protests (Kollman 1998; Baumgartner et al. 2004). Does this mean that growth in the diversity of the national interest group community has injected more competition into the lawmaking process? If so, how does it shape the decisions lobbyists when advocating for their members' interests?

Interest group competition is rooted in how organizations define their "interests," which Truman (1951) described as the common wants and desires of a set of individuals, realizable through public policy, that link a membership together. Niche-theorists Wilson (1973), Browne (1990), and Gray and Lowery (1997) argue that by mobilizing a population characterized by a common interest, an organization strives to become that population's legitimate representative in the eyes of lawmakers and lay claim to policy benefits. If so, it is unlikely that new organizations would form to represent precisely the same member interests as pre-existing groups. Thus the group "explosion" of the later 20th Century noted by Walker (1983) suggests that many *new* economic and social interests were mobilizing for political advocacy.

The nearly simultaneous growth of government power in a pluralistic society like the United States (noted by Heinz et al. 1993, 384) also makes it more likely that policy benefiting one group will be perceived as imposing economic or social costs on another. Although Olson (1965) reminds us that not everyone joins groups in response to threats to their interests, Schattschneider (1960) and later Hansen (1985) argue that new populations, or more people in already partially mobilized populations, will become politically active when they are led to believe by elites (perhaps on the losing end of the status quo) that their interests are threatened. Competition therefore exists when groups believe their interests are threatened by the interests of other groups and respond by lobbying government. Heclo's (1978) observation that exclusive subgovernments have transformed into loose issue networks crowded with advocates thus suggests that increasingly large numbers of groups now see their interests as tied to the same issue problems; they simply differ in how they want them resolved with policy. Evidence of the growing pervasiveness of group competition in modern politics appears in Heinz et al. (1993), who find large numbers of groups at work in four policy domains (Ch. 11), many represented by lobbyists able to tick-off the names of friends and foes they must consider as they lobby (Ch. 9).

Sometimes clashes of interests are intentional. The citizen and public interest groups studied by McFarland (1984), Rothenberg (1992), and Berry (1999), such as Common Cause and Consumer Federation of America, are "countervailing" in the sense that they were mobilized by entrepreneurs for the explicit purpose of contesting policies serving the interests of business and trade groups. Hojnacki (2006), however, argues that it is a mistake to simply assume that competition only pits organizations representing collective interests against those for selective interests; there are plenty of examples of it cropping up between structurally and ideologically similar groups. One issue I use in this paper is the fight among environmental organizations over

whether to support the use of federal royalties from expanded off-shore oil drilling for state conservation programs. Some, such as World Wildlife Fund and The Nature Conservancy, supported it, while Defenders of Wildlife and Natural Resources Defense Council opposed it.

Even groups representing very narrowly defined interests that form by breaking away from older, larger organizations often find that they still cannot escape competition. The internal conflict that initially caused a parent group's membership to splinter into "sub-groups," as Moe (1980, Ch. 4) calls them, remains, only now the new groups often must confront the parent as well as each other. The apparently endless feud between the American Bankers Association (primarily representing big banks) and sub-groups like the Independent Bankers Association (smaller banks) and America's Community Bankers (savings banks) is an example.[1] Indeed, Gray and Lowery (1997, 26-27) argue that few groups can define their memberships so narrowly that they do not threaten the interests of any other and still attract enough members to be viable.

More importantly we also know that even when several group memberships have competing interests, this does not mean their lobbyists will always fight. Although legislators must formally decide whose interests to legitimize and whose to harm when they enact policy, the prevalence of coalitions noted by Salisbury (1990) and Hula (1999) suggests that lobbyists are frequently relieving lawmakers of any need to choose by putting aside their differences to cooperate rather than fight. Some group coalitions form to push multi-issue (omnibus) bills where the interests advocated by one are of little concern to others, but many "issue coalitions," or

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[1] Many issues divide them, such as whether and how to comply with the Community Reinvestment Act (a law requiring banks to serve local communities as a condition for merger approval) and whether banks should be allowed to enter the insurance and brokerage businesses.

coalitions concerned with a single issue, are made up of lobbyists who have seemingly chosen to compromise the interests of their members in order to support a single joint policy solution.

Nor are coalitions always limited to ideologically similar groups. McFarland's 1993 National Coal Policy Experiment study is an excellent example of an issue coalition reaching across an ideological chasm to embrace both public interest and industry groups. It shows again that group types may not matter so much as differences in the issue positions, or policy preferences, group members want their lobbyists to support. What is surprising is that if an issue coalition can only support one position, then some or all of the lobbyists in that coalition are choosing to support a position at odds with the one that reflects their members' interests.

Coalition formation is therefore not only a good vehicle for studying lobbying generally, as Hula suggests (1999, 7), it is perhaps the best way to study how lobbyists make strategic decisions in a competitive environment, which starts with four assumptions. First, competition exists when a possible policy resolution to an issue problem desired by one organization's members, perhaps represented by a bill or status quo policy, differs from outcomes desired by other groups and all have chosen to lobby. Competition here is not treated as the total amount of opposition a lobbyist expects from other groups (the approach used by Heinz et al. 1993; Hojnacki and Kimball 1998; Gray and Lowery 1998; Holyoke 2003), but instead an issue is competitive for a lobbyist when he or she is confronted by other lobbyists representing members who desire policy outcomes imposing some cost on, or denies some benefit to, his or her own members. It does not mean that they all must fight; they may also choose to work together.

Second, and similar to Smith (1984) and recent work by Baumgartner et al. (2004), I assume that while lobbyists tend to define issues and solutions differently to gain the support of lawmakers, making issue definitions multi-dimensional, the actual policy solutions differentiating

groups tend to be uni-dimensional in terms of outcomes and consequences for group member interests. For example, regulation may be a "hindrance to market competition" or "essential for public protection," but it is uni-dimensional in terms of whether lawmakers enact more or less of it.[2] Furthermore, coalitions can support only one position on this outcome dimension so lobbyists must choose to sacrifice some or all of their members' interests if they wish to join one (unless the coalition position happens to be the position their members prefer).

This would leave lobbyists to face angry members who may decide to "exit" the group (per Hirschman 1971), so logically no lobbyist should ever join one. On the flip side, if some coalitions are ideologically broad, then why cannot lobbyists for groups with similar interests, such as the banking associations, resolve their differences and work together? Gray and Lowery (1998) suggest that lobbyists may be drawn towards coalitions when they are trying to attract new members, or prevent existing members from defecting to rival groups. Joining a coalition might increase the likelihood of winning policy victories they can turn around and use as promotional tools. Yet Hojnacki (1997, 78-79) finds only minimal empirical support for this hypothesis and Hula (1999, 97) argues that advocacy for policy outcomes on some issues is too far removed from the awareness of members to influence the coalition decisions of lobbyists.[3]

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[2] Baumgartner et al. (2004, 13) describe how complex issues such as whether to grant preferred trade status to China are reduced from multi-dimensional concepts to uni-dimensional outcomes.

[3] More specifically, Gray and Lowery (1998) do find some evidence that aggregate levels of group competition to shape policy outcomes do make it more likely a group will join a coalition because this enhances policy success and makes it more attractive to potential members, but the evidence

Hirschman (1971) and Moe (1980) instead suggest that it may be divisions *within* group memberships on high salience issues that matter. Lobbyists may have to think more carefully about how their decisions appear to those they represent when an issue is very important to some or all of their current members. Yet, as Wright (1996) argues, lobbyists also need to be able to support the legislators on whom they depend for access to advance *their* goals, and Hula (1999) argues that lobbyists must also consider the consequences of fighting other groups if they do not join a coalition. Thus the third assumption is that lobbyists do *not* always advocate for policies strictly reflecting their members' interests and, following Salisbury (1969), it is worth remembering that what is important to members is not always their lobbyist's top priority. Instead, they choose whether to sacrifice some of their members' interests by supporting a coalition position desired by legislators and other, perhaps more powerful lobbyists, or to remain faithful agents and wage advocacy wars. This ties the group maintenance and lobbying literatures together by following Ainsworth and Sened's (1993) argument that lobbyists' strategic choices are the results of trade-offs between conflicting "audience" pressures.

The final assumption follows Austen-Smith and Wright (1994), Wright (1996), and Baumgartner et al. (2004) by recognizing the inherent uncertainty lobbyists (and everyone else) face in making advocacy decisions. Not only is a lobbyist for one interest group trying to balance pressures from group members and legislators, so are all of the other lobbyists with whom he or she is competing. Thus, even if one lobbyist believes it is possible to get away with supporting a compromise coalition position on an issue without irritating too many members, he or she cannot

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is not overly robust (see their Table 1). Hojnacki (1997) also presents some anecdotal evidence that competing for members affects the likelihood a group will join a coalition.

be entirely certain that competing lobbyists, including those with greater resources, have the same degree of flexibility and are willing to become coalition partners.

In sum, a model of strategic lobbying in a competitive environment not only rests on the notion of competition as differences in member-derived preferences for policy outcomes, it must also embrace the possibility that lobbyists for competing groups can become coalition partners. Whether they actually become strange bedfellows depends on the pressures they are all under from the members they represent, the legislators they must please, the advocacy resources they can use to threaten or entice each other, the magnitude of the differences between their member-derived positions on issues, and the uncertainty each has regarding exactly what their competitors will actually choose to do.

A Model of Coalition Formation in a Competitive Environment

Deciding whether to support a compromise position on of an infinite continuum of positions addressing an issue problem is the first and, arguably, most important step in coalition formation (Hula 1999, 30), so it is this choice in a competitive environment that is modeled here. For each lobbyist, the choice of whether to support a compromise depends on whether it provides him or her with the greatest payoff for the least cost. This, in turn, is determined by a combination of incentives and constraints stemming from their need to keep members satisfied, the need to gain enough legislative support to move or stall bills, and the choices they expect their competitors to make.

Group Member and Legislator Pressures

Following the second assumption of the uni-dimensionality of policy solutions, the model starts with a continuum on which are arrayed all of the possible positions addressing an issue problem. Every lobbyist, legislator, and interest group member has a single position on this continuum that represents how he or she would ideally like to see it resolved with policy. All preferences are single-peaked in that they prefer positions closer to their ideal on the continuum to those that are further away in either direction. It is also assumed for the moment that lobbyists are myopic with respect to their competitors' choices so that the value they place on each position comes only from the support they anticipate receiving from members and legislators for choosing it. Because these "audiences," using Ainsworth and Sened's (1993) term, have their own ideal positions, the support lobbyists receive from them varies from position to position.

Consider interest group members. Although all members have their own preferences as to how they want the issue resolved with policy, Moe (1980, Ch. 4) argues that it is unlikely that most members of any group would prefer exactly the same position. Especially in large groups representing professions or trades, where the tools of recruitment are primarily material incentives rather than opportunities to change policy, members are less likely to be united or feel strongly about an issue (or even aware of policy alternatives) because advocacy has little to do with why they joined (Olson 1965). Thus the group's lobbyist confronts a distribution of member preferences so that no one position chosen will please ever member. Angry members who feel they are not being well represented, Hirschman (1971) argues, will likely try to punish the lobbyist by "exiting" the organization, stripping it of resources and even legitimacy, or use "voice" by trying to have the lobbyist fired.

If group member preferences are distributed symmetrically around a mean position, then the best position the lobbyist can take to please this audience (or minimize the anger) is the mean

of the distribution. Advocating for any other position would generate greater collective anger from members and reduce the support the lobbyist receives from them. In this sense the group membership's collective preference is also single-peaked over the mean position so that the lobbyist will lose support from more and more members by choosing to advocate for positions further from this group ideal. The actual rate of utility loss for supporting more distant positions depends on how aware members are of what their lobbyist is doing (what Hojnacki 2006 calls "issue saliency") and how intensely they prefer their ideal positions. The more intensely members feel about the issue (perhaps the more responsive they are to purposive incentives) and the more united they are (smaller standard deviations of the distribution of member preferences), the less tolerant they will collectively be of deviations from the mean.[4]

Under such a constraint, lobbyists would only advocate for an alternative position if they needed the support of another audience. Although lobbyists are often thought of as influencing the choices of legislators, Matthews pointed out as far back as 1960 that influence is a two-way street and lobbyists are often as dependent on legislators as the latter are on the former. Indeed, in a pair of important articles Ainsworth (1993; 1997) argues that legislators often have the upper hand because they control access and can use this gate-keeping power to pressure lobbyists into working to advance *their* legislative enterprises. Thus, following Wright (1996), lobbyists must use their organization's resources to develop arguments and information to persuade legislators that it is in their best interests to support a position on the issue of the lobbyist's choosing.

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[4] Corporate, or "institution," lobbyists have a different problem. They must respond to pressure from a few corporate executives or a board of directors who may be more politically aware.

What limits a lobbyist's capacity to persuade is the distribution of legislator preferences on an issue prior to being lobbied and the resources his or her interest group provides for advocacy. The greater the distance on the issue continuum between a legislator's initial position and the position the lobbyist wishes to support, the more a legislator is a foe instead of a friend and the more resources are required to persuade the former that it is in his or her best interests to support the latter's position. Support may range from roll call votes to bill sponsorship in committee, but lobbyists desire to have as much of it as possible for the least cost. Although the general ideological dispositions of legislators may be bi-modal reflecting partisan differences, their preference distributions on specific issues often fail to reflect this division (Krehbiel 1993; but see Binder et al. 1999). It is therefore assumed in the model that their collective preferences *on an issue* are also distributed symmetrically around a mean.

Walking a tight rope between members and legislators, a lobbyist must find a position to advocate that jointly maximizes, or balances, support from both of these audiences. Assuming a uni-cameral legislature, this is the position where the loss of group member support is sufficiently compensated by the legislative support the lobbyist anticipates receiving as a result of his or her advocacy.[5] This is illustrated in Figure 1 where dM and dL are the constant rates of utility loss from members and legislators respectively for supporting positions x_i on the issue continuum. A lobbyist loses more and more member support the greater the distance between the group ideal $\bar{x}$

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[5] In the bi-cameral case lobbyists would have to be concerned with distributions of legislator preferences in two chambers, especially the two mean positions and the ideological distance between them. On a bi-modal, partisan issue, they would also have to worry about the location of the mean (or perhaps the median) preference of the majority party.

and other positions. Legislator support grows as the lobbyist chooses positions further to the right, closer to the legislative mean x_L, because fewer resources and less advocacy is necessary to gain this support. The position actually chosen is x^* where dL and dM intersect because here the rates of loss and gain are equal and support from both audiences is maximized.

---- Insert Figure 1 about here ----

Graphing the lobbyist's *joint* payoff curve c in Figure 1 not only shows that x^* lies under the top of the curve, but that he or she also prefers to support many positions to the right of the collective member ideal because the payoff curve c is higher at those points than at $\bar{x}$, creating a set of "preferred-to" alternatives P.[6] If members start feeling more strongly about their ideal, this utility loss increases from dM to dM', P shrinks to P', and x^*, the position balancing member and legislator pressures, shifts closer to what members prefer. If legislators are more unified around their mean, or the lobbyist has less resources, then dL becomes steeper and x^* shifts right.

Lobbying in a Competitive Environment

Introducing a second lobbyist for a competing group, one whose members collectively prefer a different position on the issue, changes this decision. If the competing group's ideal position $\bar{x}_2$ is on the right side of x_L, then the constraints on the second lobbyist can be depicted as the mirror image of Figure 1, except that both are now using their resources to lobby the same

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[6] The right hand boundary of this preferred-to set is the point where the lobbyist no longer receives any support (utility) from group members, where the utility for supporting that position is equal to what the lobbyist would receive for supporting $\bar{x}$. The preferred-to set will contain the legislative mean as long as $dM \leq dL$ is true.

legislature. The first's capacity to persuade is thus diminished by the amount of resources the competitor wields because not only must legislators be persuaded to change their positions, the competitor's efforts at persuasion must now be overcome as well. As a result, dL becomes steeper, the position balancing these pressures shifts further right than in Figure 1, and lobbyist 1 receives a smaller overall payoff. This is seen in Figure 2 where c_1 is lobbyist 1's non-competitive payoff curve from Figure 1 while c_1' reflects his or her payoff curve now diminished from u_1 to u_1' on the left-hand vertical axis, the result of committing more resources to counter the competitor's advocacy and receiving less legislator support for the effort. This shift of x_1^* to x_1', and the corresponding payoff loss, is the result of interest group competition.[7] Although increasing resources (if they are available) may help lobbyist 1 support positions closer to $\bar{x}_1$, resources play another, far more critical role.

---- Insert Figure 2 about here ----

Understanding the crucial role that Hula (1999) claims resources play in coalition formation is perhaps best done by developing the model along the lines of the cooperative games of first laid out by Nash (1953), where two or more actors competing for the same goal agree to a bargain only if the mutual benefits of doing so outweigh the payoffs for not working together.

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[7] If legislators are distributed symmetrically around x_L, and both lobbyists possess the same resources and are under the same pressures from their respective group members, then the change in both of their positions will be towards the center and of equal distance.

They both gain something by cooperating they would not get otherwise.[8] In this case lobbyists agreeing to support the same position resolving an issue question will combine their advocacy resources in a coalition, resources they would otherwise expend in a conflict possibly resulting in smaller payoffs to both. The possibility of sharing resources thus acts as an incentive that pulls lobbyists towards a joint coalition position because that position's value would increase by the amount of resources competitors are expected to share as coalition partners, making it potentially more valuable than the conflict payoff $x_1^{'}$ in Figure 2.

To demonstrate this for the two lobbyists in Figure 2, assume that any point on the continuum is a possible coalition position with curves $c_1^{''}$ and $c_2^{''}$ indicating the utility both receive from resources shared and the legislator support gained *if* they, hypothetically, worked together at any of these positions. The space under the new curve $c_1^{''}$ between the dashed horizontal lines $u_1^{'}$ and $u_1^{''}$ shows that lobbyist 1 gains more for supporting positions under those areas by cooperating than he or she would have by choosing $x_1^{'}$ and waging an advocacy war. Cooperation is thus preferable as long as $u_1^{''} > u_1^{'}$ (remember that position x_1^{*} and its payoff, u_1^{*}, is not an option as long as the competitor chooses to lobby). Both lobbyists' preferred-to sets, *P₁* and *P₂*, now overlap to define *coalition set C,* positions both value over those they would support if they chose to wage an advocacy conflict against each other because working together provides a greater mutual payoff

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[8] The cooperative game idea I draw on here reflects advances made in this area by Binmore et al. (1986), who found that the outcomes of cooperative bargaining games are the same as those of non-cooperative bargaining games such as those developed by Rubenstein (1982).

than fighting. Their jointly optimal position is X^* where their expanded utility curves intersect because no other position in this scenario gives either a greater payoff.[9]

There are three catches. One, legislators may be so widely distributed on an issue that sharing resources is not necessary to offset group member anger. Two, as in Figure 1, members may feel so strongly that the lobbyist dare not support a coalition position. Three, per assumption four, one lobbyist does know for certain how much member pressure the competitor is under.

Multiple Lobbyists and Hypotheses

This becomes more complicated when there are more than two lobbyists because any combination of two or more can be a coalition (three competing lobbyists mean four possible combinations). To determine which coalition position, if any, each will be inclined to support, assume that every possible combination of lobbyists advocating on the issue is a profile of a potential coalition. If all of the lobbyists in a profile have overlapping preferred-to sets forming a coalition set, just like in Figure 2, then this profile is a *feasible coalition*. Essentially each lobbyist takes stock of all of the feasible coalitions he or she is in, finds the one providing the greatest payoff, and chooses to support that coalition position *if* he or she expects *all* of the other lobbyists in the profile associated with that coalition to do so as well. Otherwise the additional resources they still manage to acquire through sharing, and the additional legislators that can now be persuaded to support their position, may still not provide them as much compensation for losing

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[9] The greater height of $u_1^{''}$ over $u_2^{''}$ means lobbyist 2 has more resources to offer. While lobbyist 1 appears to gain more utility from this, also notice in Figure 2 that X^* is closer to $\bar{x}_2$ than it is to $\bar{x}_1$. For more on bargaining between actors with unequal resources see Roth (1978).

member support as another feasible coalition. It might not even provide as great of a payoff as simply advocating for the group member ideal position.

More specifically, the lobbyist's optimal coalition supports the X^* position closest to his or her non-competitive ideal x_i^*. In Figure 2 a coalition supporting x_1^* would maximize lobbyist 1's payoff, but it is not an option here because it is not in C. Instead, he or she desires to join the coalition that supports the position X^* in C that *is* closest to x_1^*. If a feasible coalition minimizes this distance for *every* lobbyist in the corresponding profile, so that they would all maximize their payoffs, then choosing the coalition position is an equilibrium outcome and the coalition will form. If a lobbyist does not have *any* feasible coalition which competitors can be expected to join, he or she will instead support x_i' and use his or her resources to fight everyone else. That a lobbyist can only anticipate whether competitors will join the coalition, because they do not know how much pressure their competitors are under from members to support group ideal positions, is a problem taken up in the next section.

A few implications of this model are worth mentioning. First, as Figure 2 demonstrates, if lobbyists in a coalition have member ideal positions on opposite sides of the legislative mean, then x_L will be in the coalition set. It may not be the position chosen, but it suggests the position chosen will be more palatable to legislators. Second, ideologically broad coalitions (the difference between $\bar{x}_1$ and $\bar{x}_2$) are less likely to form. If group ideal positions $\bar{x}_i$ are close together, then their payoff curves, including the coalition curve c_i'', would be higher because fewer members would be angered by their lobbyists' choice to support X^* than they would be if they joined a coalition with more ideologically distant groups and, consequently, a more distant coalition position. Broader coalitions may still form if lawmakers are more unified in their positions, or if one group

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possesses an exceptionally large amount of resources, such as the peak-organizations Hojnacki (1997) argues are often seen as critical to coalition success.

Third, a lobbyist's choice may not depend on a pre-existing status quo position because the status quo itself is merely a reflection of the preferences of legislators, group members, and competing lobbyists. If preferences remain stable, then any position garnering enough support to become law will endure. Put another way, as Baumgartner and Jones (1993) argue, a status quo reflects stable preferences among elites, often because the set of actors itself remains unchanged and a lobbyist will have no incentive to choose any other position unless the preferences of others change. It is a consequence of the model's inputs, not an exogenous input itself.

Although variables cannot be measured finely enough to empirically verify these conjectures, the model's basic components can be tested with these three hypotheses:

H1: The more intensely group members care about their ideal positions, the less likely it is that their lobbyists will deviate from the group mean to support a coalition position.

H2: The more united legislators are around an issue position, the more likely lobbyists are to support that position in a coalition.

H3: The more resources a lobbyist for a competing interest group wields, the greater the likelihood that the first will desire to support a coalition with him or her, given the first's belief that the competitor will not be prevented from joining due to pressures from group members.

Research Design

A major task in testing these hypotheses is designing a statistical model capturing the interdependence of strategic decisions, one lobbyist choosing a position based on the expectation that a competitor will do so as well and share resources. Social scientists have become very

interested in statistically modeling strategic interaction under conditions of uncertainty and have developed several methods, such as McKelvey and Palfrey's (1995; 1996) quantal response equilibrium (QRE) model. The key to converting deterministic theoretical models into statistical ones is the inclusion of some probabilistic element representing uncertainty akin to an error term (McFadden 1974). Using Signorino's (1999; 2003) maximum-likelihood method for estimating QRE models, a probabilistic two-player version of the theoretical model, similar to the example in Figure 2, is designed where lobbyist i is trying to decide whether to support a position but is uncertain as to whether competitor j will also support it because i has only incomplete information regarding how strongly j's members feel about the issue. The statistical equation is

$$\Pr(y_i^* = 1) = \alpha_i + \beta x_i^m + \beta x_i^l + \boldsymbol{\beta x_i} + \pi_i(\beta x_j^m)$$

where βx_i^m is i's payoff from group members for supporting a position, βx_i^l is i's payoff from legislators, and $\boldsymbol{\beta x_i}$ is a vector of control variables. Term βx_j is the resources i anticipates receiving should competitor j choose to support the same issue position as i, and π a normal probability distribution representing i's uncertainty regarding the amount of pressure lobbyist j is under from group members to support j's group ideal position. Thus the likelihood of i choosing to support a position is a function of a set of independent variables capturing his or her known utility plus uncertainty regarding j's choice (because not all of j's utility for the position is known to lobbyist i) which injects the probabilistic element required in statistical models. Signorino (1999) shows how to derive a likelihood function from such probabilistic outcomes that can be estimated using probit.[10]

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[10] A more detailed derivation of this model is available upon request.

The literature and the theoretical model both emphasize the necessity of studying lobbyist decision making in the context of issues, so the first step is issue selection. The policy literature holds that features of the environment exogenous to the model may vary from issue to issue or policy domain to domain so the hypotheses are tested using six issues drawn from three domains. Lowi (1972) argues that distributive policy domains, where benefits are targeted but costs are diffuse, are more likely to be marked by long-standing norms of cooperation that may constrain the decisions of the actors working in those domains. Agriculture, long held up as the distributive policy archetype (Browne 2001), is therefore selected as one of three domains from which issues are drawn. The other two, environmental conservation and banking, have characteristics of more conflict prone re-distributive and regulatory policies.

Most of the data used in the analysis was collected through interviews with lobbyists. Memory fatigue is a threat to data validity and reliability so the research was restricted to issues that were addressed by Congress in legislation from 1999 to 2002. Discreet issues were identified by collecting articles published in *Congressional Quarterly Weekly Report (CQWR)*, arguably the best source regarding the issues on Congress's agenda, on agriculture, environmental conservation, and banking during this time period. How aware the general public is of an issue may also act as an exogenous influence on lobbyists, who are mindful of their organization's reputation (Bacheller 1977; Kollman 1998), and must be controlled for. Thus a measure of an issue's public salience was created by collecting and counting the number of articles published on each issue in the *New York Times*, assuming this publication to be a bell-whether of what was news worthy nation-wide, from 1999 to 2002. All issues for each domain were then divided into two pools (six in total) by whether the number of *Times* articles was greater than one standard deviation above (high salience) or below (moderate to low salience) the mean for all issues in that domain. One issue was then

randomly selected from each pool for a total of six issues: oil drilling in the Arctic Wildlife Refuge (high salience) and using off-shore oil royalties for state conservation projects (low) from environmental conservation; bankruptcy reform (high) and money laundering (low) from banking; and government support of bio-engineered foods (high) and reforming price supports for fresh milk (low) for agriculture.

Interest groups were also identified using *CQWR* and *New York Times* articles, but because it may be harder for groups with fewer resources to frequently make the news, every article from these publications starting in 1990 was gathered. Reading these articles led to the identification of 102 organizations, each of which were contacted and an interview with the principle lobbyist working on the issue requested. Eighty-three agreed for an 81% response rate. The distribution of groups by type in the sample is similar to what Baumgartner and Leech (2001) found in the 1996 Lobbying Disclosure Act reports. Here 34% were professional / trade associations compared to 39% in their population, labors unions were 5% to 3%, and intergovernmental groups were 6% to 3%. The proportion of public interest / citizen groups in this sample, however, was 45% rather than their 30%, although this was only on the two environmental issues where public interest groups relied heavily on outside lobbying tactics and may have been less inclined to file disclosure reports.[11] As the proportions were similar for the other two domains, choices made by these types of groups are simply controlled for in the analysis. Most of the data is from closed and open-ended questions asked in these interviews.

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[11] Baumgartner and Leech's data comes from Lobbying Disclosure Act files for 1996 which must be filed by lobbyists making direct contact with members of Congress. It is therefore possible that groups relying largely on outside strategies such as protests did not feel the need to register.

In the theoretical model competition is overcome and coalitions form when two or more lobbyists choose to support the same position on an issue, but data cannot be collected on the hypothetical issue positions of coalitions that never formed. Fortunately there was a solution. If substantially different bills represent different ideological positions on an issue, then they can be assigned positions on a continuum analogous to those discussed in the theoretical model. The observable choice of a lobbyist to support or oppose a bill is then equivalent to the choice of whether to support an issue position. If lobbyists for a pair of groups working on the same issue, a dyad, chose to support the same bill, then they can be assumed to be supporting the same position in a coalition. For each issue, four bills representing significantly different solutions to the issue problem that every lobbyist advocating on the issue had to support or oppose were identified. In the interviews every lobbyist was asked whether they supported each bill and a dummy variable for each was coded 1 if they did and 0 otherwise.

The strategic probit model estimates one lobbyist's choice as partially dependent on the anticipated choice of a competitor, so the data matrix was structured as a series of dyads representing pairs of lobbyists i and j. Every lobbyist was paired with every other advocating on the same issue so that the second observation in the matrix contains the same lobbyist i as in the first but now paired with a different competitor j.[12] This process was repeated until every lobbyist had been paired once with every other for the same bill addressing the same issue for a total of 3,890 dyads. Because the model estimates the choice of lobbyist i as a partial function of what he

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[12] For example, on the first bankruptcy reform bill the American Bankers Association, and its lobbyist's choice of support or opposition, was entered in one observation paired with Consumers Union and then with the AFL-CIO in the next observation.

or she *anticipates* competitor *j* will choose based on the pressures *j* is believed to be under from group members, no observation of *j*'s actual choice is included. Instead, the dependent variable, *First lobbyist's choice*, is the dummy indicating whether lobbyist *i* supported or opposed the bill with the probability distribution π in the equation capturing *i*'s belief as to what *j* will choose based on the independent variables operationalizing *j*'s utility included in the same observation row of the data matrix. Put another way, the statistical model estimates the probability of competitor *j* deciding to support the same bill as *i* and incorporates this belief into the estimate of the first lobbyist's choice in a manner akin to an error term.[13] This is done because *i* cannot observe *j*'s choice until it is already made.[14] Descriptive statistics are in Table 1.

---- Insert Table 1 about here ----

Whether *i* chooses to support a bill (issue position), $\Pr(y_i^* = 1)$, is determined by the pressure he or she is under from group members and legislators, as well as whether competitor *j* is expected do the same and thus share resources. Because differences in group member and legislator positions on issue dimensions is crucial to the operationalization of the hypotheses, the four bills per issue discussed above were sorted by whether one was more "liberal" than another in that it would result in greater government regulation or spending than another to create a four-

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[13] This also means that an *ij* dyad would not produce exactly the same result as a *ji* dyad because the values of the independent variables for lobbyist *i* in the latter scenario would likely produce a probability distribution different from the one estimated for lobbyist *j* in the original version.

[14] See Signorino and Yilmaz (2003) for more information on the structure and how to interpret the strategic probit model.

point ordinal scale for each issue. The most liberal bill was given a position code of 1 and the most conservative 4.[15]

Each lobbyist was asked in the interview which of the four bills best represented the collective interests of his or her group members, with the position on the scale represented by this bill then designated as the group member ideal for that lobbyist. Each was also asked to rate on a scale of 1 to 3 how intensely they believed their members were committed to this position, 3 being the most intense, thus capturing the intensity of member preferences. The variable *Group member intensity* capturing the member pressure lobbyists were under as the ideological distance from each group's ideal position increased was created by multiplying the member intensity score by the squared difference between $\bar{x}$ and the position of the bill in the observation. The multiplicative term should positively influence a lobbyist's choice to support the group position the bill as the intensity or the spatial difference increases. The difference between the bill and the group positions was also used as the control variable *Position difference*.

Digressing slightly, this data also provides a sense how much group competition there was on each issue. The degree of competition is the distance between group positions and how strongly members feel about these positions, so the ideological distance between each pair of groups lobbying an issue was calculated, multiplied by how strongly each lobbyist's members felt, and then the average of all group pairs for that issue was found. The resulting measures of competition are displayed in Figure 3. Not surprisingly, the politically charged Arctic Refuge issue exhibits the most competition and the non-partisan money laundering issue the least.

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[15] A code checker was employed to re-sort and re-code these bills. Our scores correlated at 0.92 suggesting that the measure, though rough, is valid.

---- Insert Figure 3 about here ----

Operationalizing legislator support used only those members of Congress taking an active interest in the issue. For each issue all legislators sponsoring or co-sponsoring each of the four bills used as components of that scale were identified and pooled together to create a set of legislators concerned specifically with that issue. Because bill sponsorship may reflect a legislator's choice of positions *after* being lobbied, the Poole and Rosenthal Common Space Scores for the 106th and 107th Congresses were used as the initial positions of these legislators on each issue.[16] The distribution of each set of legislators' scores was divided into quartiles and super-imposed on the corresponding issue scale so that the pre-lobbying positions of legislators were roughly associated with the four policy alternative positions on that scale. The actual values of the *Legislator support* variable is the percentage of all legislators involved with an issue whose Common Space Scores fall in each quartile. Larger percentages of legislators supporting a position means a lobbyist would need to advocate less to gain their support if he or she chose to support it as well. This, in turn, should make it more likely to actually observe the lobbyist choosing that position.

The influence of the competing lobbyist is, per the theoretical model, conceived of as the influence of the resources he or she wields, but this is also difficult to capture. Organization budgets could not be used because they support many operations other than lobbying. Lobbyists therefore were simply asked whether the level of resources their organization had committed to advocacy on the issue was greater than, equivalent to, or less than resources used to lobby other

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[16] I use the common space scores rather than the more traditional DW-NOMINATE because these are comparable across both the House and the Senate (see Poole 1998).

issues. The term "resources" was defined not only as money, but organizational personnel as well. Responses were coded 1 for "less than," 2 for "same as," and 3 for "greater than." Greater resources are an enticement, so the *Competitor's resources* variable should positively influence lobbyist i's choice to support a bill given that j is expected to support it.

For controls, a dummy *High salience to the public* variable was coded 1 if the issue in question was one of the three high salience issues, and another *Distributive policy domain* variable coded 1 if the issue was from the agriculture policy domain. Furthermore, the timing of a bill in the legislative process may be important, lobbyists perhaps having more incentive to oppose bills not pleasing to their members earlier in the process (such as at the committee stage). Because each observation is tied to a bill, a variable was coded 1 if the observation is the first of the four bills introduced, 2 for the second, and so on for an *Issue iteration* variable. Whether a lobbyist makes contributions as a means of gaining influence is captured by simply coding a dummy variable 1 if his or her *Group has a PAC*. Highly ideological public interest and citizen's groups may be systematically less inclined to make compromises, so a dummy *Public interest group* variable was coded 1 if it was this type. Older groups may enjoy better reputations as brokers and have better connections in Congress so each *Interest group's age* was calculated by subtracting its founding date from 2002.[17] Finally, groups with larger teams, including contractors, may make the lead

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[17] The founding date came either from the group's entry in the 2002 edition of *Washington Representatives* or was acquired during the interview.

lobbyist less inclined to compromise, so each was asked how many employed and contracted lobbyists they had working on the issue and this became the *Size of lobbying team*.[18]

Data Analysis

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[18] Some might argue that the model is underspecified, but it contains equivalents to most of the statistically significant variables from other major articles on coalitions. For instance, only two from Hojnacki's 1997 analysis have been excluded. One is "Previous Alliance History," which she measures by asking respondents how frequently they worked in coalitions in the past. Data was not collected on this because lobbyists were questioned about issues worked on several years prior to the interviews (1999 – 2002). Replicating her variable would mean asking about coalition behavior prior to 1999 and many lobbyists interviewed were not even with their organizations prior to 1999. Her other excluded variable is "scope of issue interest," referring to whether the group is interested in most of, or a portion of, the legislation being debated. The data was collected, but was not statistically significant and not connected to the theoretical model.

The other key article is Gray and Lowery's (1998), but it is harder to use here because it does not examine decision making in an issue context as Hojnacki and I do. For instance, their "frequency of opposition" captures the total opposition respondents normally encounter on all issues, not specific issues they may be lobbying at the time of the observation. The equivalent here is the measure of the difference in ideal policy preferences between groups lobbying the same issue. Because this influence is a constant in my data, I cannot replicate their hypothesis. Otherwise the model uses the variables consistent with the literature: issue salience, organizational resources, group type, relations with legislators, policy type (e.g., distributive), group age, and PAC affiliation.

Again, the strategic probit model estimates the first lobbyist's binary choice as a function of his or her operationalized utilities (selected independent variables) as well as expectations, π, regarding the competitor's choice which means i's choice is partly conditioned on beliefs regarding the pressures on lobbyist j. Thus the estimates in column 1 of Table 2 are the likelihood that i chose not to support a position as a function of member pressure and expectation that j would not either. Only variables expected to positively influence this choice are included in this column. For example, the theoretical model holds that intensity group members hold for their collective ideal positively affects the likelihood of observing the lobbyist choosing to *not* support a bill, given that it is not at the group's ideal position, so this estimate is presented in column 1. Column 2 reports the likelihood that variables such as legislator pressure and the resources competitor j can offer makes lobbyist i *more* likely to support an alternative bill, given i's expectations of what j will choose.[19] The estimates of j's utility are similarly arranged but do not include expectations regarding i's choice.

---- Insert Table 2 about here ----

Overall the statistical model correctly predicted 75% of the outcomes. In the case of the first lobbyist, whose choice is conditioned on expectations of the competitor's choice, the results support all three hypotheses. The variable capturing the utility gained from members for opposing any position other than the group's ideal when members felt strongly about it is positive and

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[19] Specification issues require that not ever variable used to estimate the choice of the first lobbyist be used to estimate the choice of the second, so the three context variables of high salience issue, distributive policy, and issue iteration are only used to estimate the first's choice (see Signorino 1999).

significant. Calculating the first difference by increasing this variable's value by one standard deviation, holding the others at their mean or modal values, reveals an increase in the probability of the lobbyist faithfully advocating for member interests of 23 percentage points. This variable is also positive and significant for the competitor. In addition to having a similar constraining effect on the competitor, it *also* means the first lobbyist is less likely to support the bill *because* he or she suspects that the competitor's members are making it too difficult for him or her to likewise support a coalition position and share resources. In response, the first lobbyist is more likely to choose a position garnering more member support for the battle to come.

The competitor's resources variable, perhaps the most important for revealing the effect of group competition, also shows the predicted effect. In the case of the competing lobbyist j, the more resources are offered by the first, i, the more likely he or she is to support the bill, thereby making it more likely that i will support it in a coalition as well. Although the first difference effect of an increase in the resources j offers on the likelihood of i choosing to support the bill is only 10 percentage points, there is another, more subtle effect. As the strategic probit model assumes lobbyist i does not know for certain what the other will choose because there is private information regarding the pressure the competitor is under from group members, the resources the first offers the competitor should make it more likely that j will choose to form a coalition when pressure from j's members is believed to be low. Reflecting the interdependent nature of decision making here, holding member pressure on the competing lobbyist at its mean value, an increase in the resources offered by the first lobbyist increases the likelihood that the *first* will choose to work with the competitor by 7 percentage points because, presumably, he or she believes the other will react positively to the enticement and support the bill. Setting all of lobbyist j's explanatory variables operationalizing utility for supporting group members (those in column 3) at their

minimal values, so that the anticipated group member constraint on the competitor essentially vanishes, reveals that this reciprocal influence of the resources offered by the first on his or her own choice increases by another 5 percentage points.

Legislator pressure, however, appears to produce a more ambiguous result. Although, as predicted, greater support from legislators for a bill at one of the four positions makes it more likely that the first lobbyist will support it (a first difference effect of 14 percentage points), the variable's effect on the competitor turns out to be significant but negative. Perhaps the greater level of legislator support enjoyed by the first lobbyist leads him or her to believe that the competitor has been out maneuvered and will instead support the position favored by his or her group members. Indeed, this may even lead the first lobbyist to doubt the wisdom of supporting the bill after all since the competitor is believed to be unlikely to share resources in a coalition, though this somewhat recursive notion is not clearly supported by these results.

Some of the control variables exhibit significant effects with one in particular worth mentioning. The issue iteration variable measures stages of the lawmaking process. Although it is only ordinal and does not distinguish between plenary, committee, and floor stages, it nonetheless suggests that the lobbyists are less likely to support the group ideal, and therefore support a compromise later in the process. This supports arguments made by Ainsworth (1997) and Hula (1999) that earlier stages are more about position taking, advocating the group ideal, but later on willingness to compromise may keep lobbyists in the game as legislators look to form majorities to move bills. This is an idea worth developing in a competitive group context.

Conclusion

At the beginning I argued that evolving research on the consequences of the growing diversity in the interest group system, and the greater frequency of coalition formation, would benefit from a more theoretical view of group competition. If it is the result of differences in member interests, and more societal interests are now being articulated, then greater diversity in the number and types of groups means that there is more group competition than ever, even between ideologically similar organizations. At the same time, group issue coalitions are forming more frequently, implying that in spite of group diversity competitive differences are being overcome. How this happens, the circumstances under which it fails to happen, and who is advantaged are therefore serious questions and it would be a mistake to develop theories of group and lobbyist behavior without first establishing a solid understanding of group competition. Starting with a few basic assumptions I proposed and tested a model of strategic decision making by lobbyists in a state of competition. The results provided supported for the model's central mechanism, that competing lobbyists choose to overcome differences in member interests by making trade-offs between legislator pressure, the resources competitors offer, and pressure to faithfully represent members when selecting the best position to take on an issue.

Without a doubt the model is greatly simplifying complex interactions and would greatly benefit by incorporating other findings in the interest group literature. There may be other audiences that lobbyists must respond to, such as the patrons identified by Walker (1983) and explored by Rothenberg (1992). Recurring competition among lobbyists may also lead to cooperation, as Axelrod (1984) found to be the case in a repeated prisoner's dilemma, suggesting the need for a dynamic version of my model. It would also be worthwhile to explore hypotheses of legislator, lobbyist, and member indifference suggested by Hojnacki (2006), as well as explore

whether the influence of competition decreases at later stages of the lawmaking process as Hula (1999) suggests. Legislative coalition models often use two or more issue outcome dimensions rather than one. To some extent the trade-off between two issues provides a lobbyist with flexibility akin to the trade-off of utility from different audiences. But unless a lobbyist's preferences on both issues are non-separable, the pressures on the lobbyist on one issue from members, legislators, and competitors may be entirely different, or non-existent, on the other.

With an eye towards building a more complete theoretical understanding interest group politics, this model should help shed more light on the complex relationship between legislators and lobbyists. For instance, it expands on Ainsworth and Sened's (1993) work by adopting their notion of lobbyists balancing pressures. It also complements the lobbying-as-information-transmission model of Austen-Smith and Wright (1994) where lobbyists are assumed to have fixed issue positions and try to influence the choices of legislators, whereas here legislators are pressuring lobbyists. As it is hardly a stretch to argue that both sides are influencing the other's position, it suggests that the next step in advancing our understanding of competitive lobbyist is a model incorporating variation in the positions of both due to reciprocal influence. Finally, the model suggests that how lobbyists overcome collective action problems may limit their ability to cooperate with others, but also suggests that pressure from legislators and competing lobbyists may limit their capacity to faithfully represent factions of the public in the political process.

Figure 1
Change in a Lobbyist's Preferred-To Set and Optimal Position as Group Member Pressure Increases
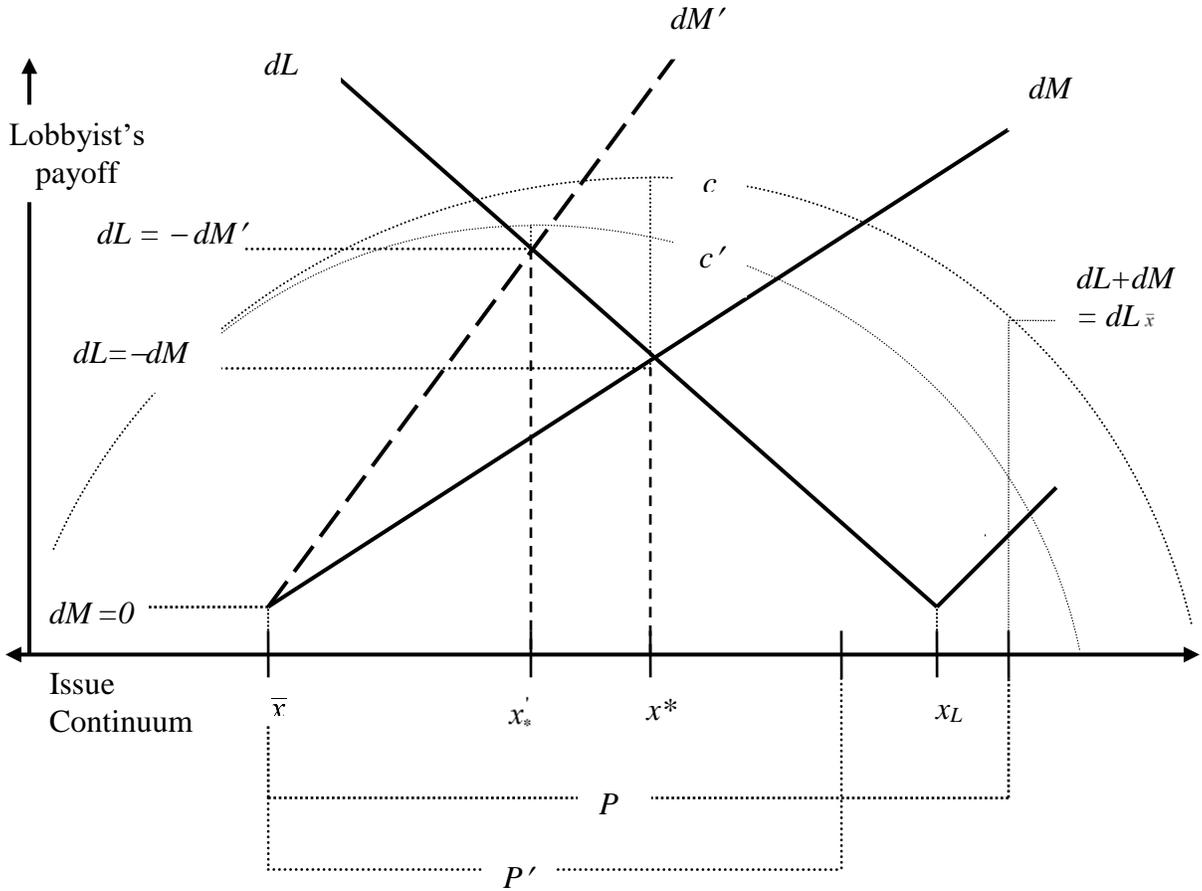

dM'

dL

dM

Lobbyist's
payoff

$dL = -dM'$

c

c'

$dL+dM$
$= dL_{\bar{x}}$

$dL = -dM$

$dM = 0$

Issue
Continuum

$\bar{x}$ x'_* x^* x_L

P

P'

Figure 2
Identifying the Effect of Competition and the Coalition Position

Payoff gain for Lobbyist 1 from a coalition

Payoff loss for Lobbyist 1

Lobbyist 1's payoff

Lobbyist 2's payoff

c_1''

u_1''

u_1

c_1

u_1'

c_1'

c_2''

$\bar{x}_1$

x_1^*

x_1'

X^*
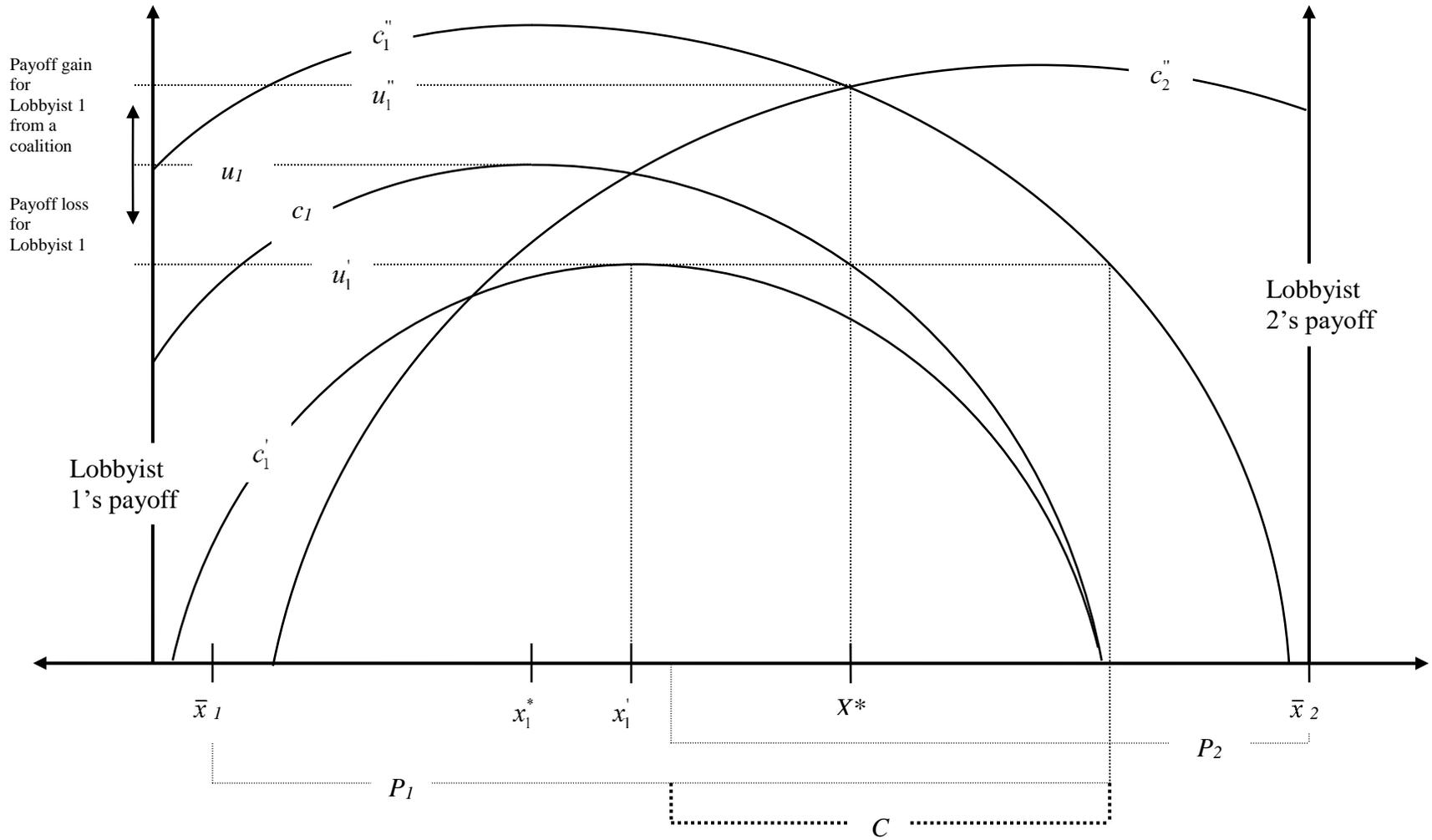
$\bar{x}_2$

P_1

P_2

C

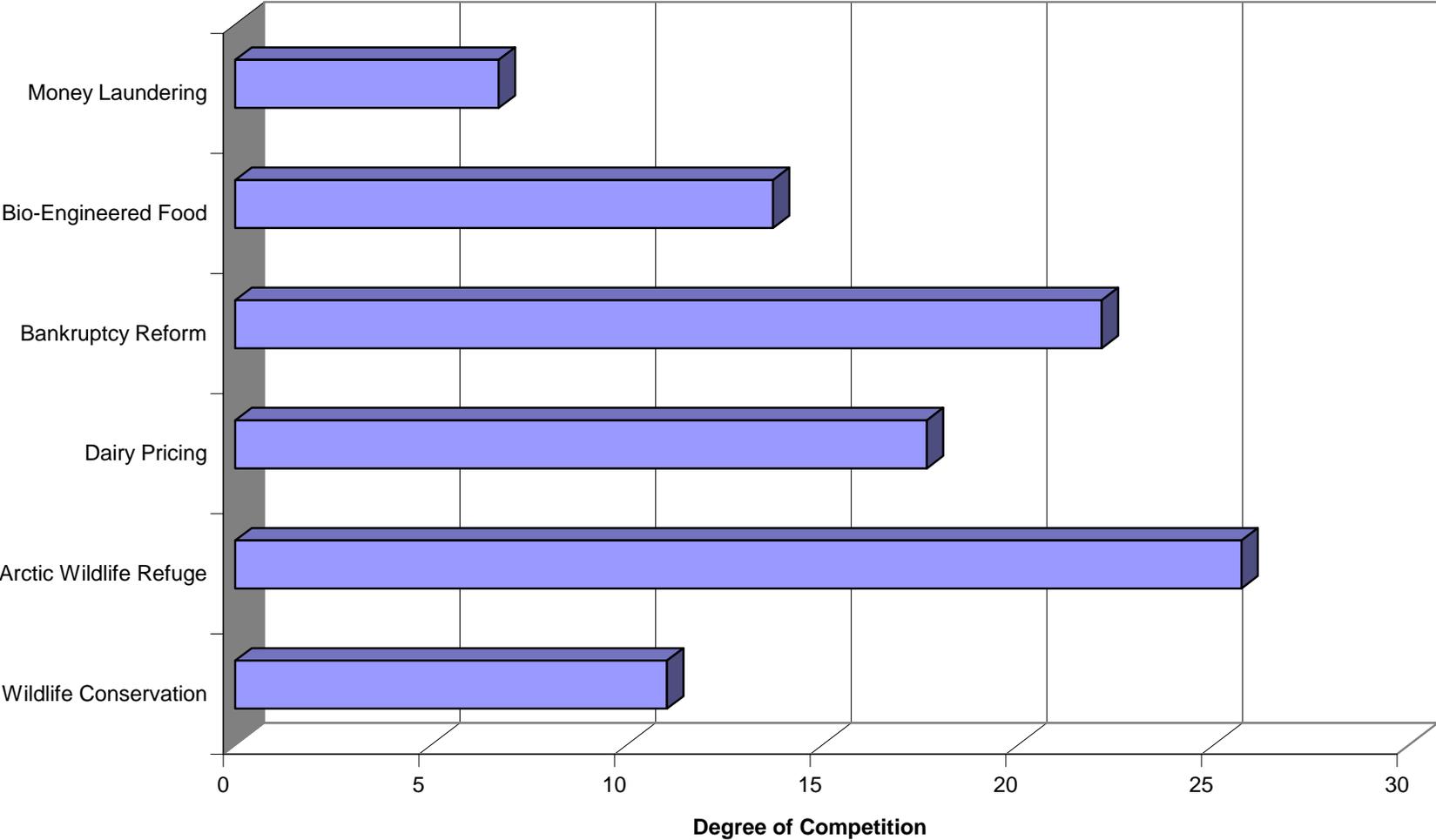**Figure 3: Degree of Interest Group Competition per Issue**

Table 1
Descriptive Statistics for Dependent and Independent Variables[†]

Explanatory Variable	Mean Value	Standard Deviation	Minimum Value	Maximum Value
First Lobbyist's Choice (Dependent Variable)	0.54	0.50	0	1
Legislator Pressure	0.23	0.26	0	0.93
Group Member Intensity	3.24	2.66	0	9
Competitor's Resources	2.22	0.77	1	3
Position Difference	1.35	1.02	0	3
Interest Group's Age	56.27	34.73	4	127
Size of Lobbying Team	7.66	6.31	0	25
Public Interest Group	0.46	0.50	0	1
Group Has a PAC	0.40	0.49	0	1
High Salience to the Public	0.57	0.50	0	1
Distributive Policy	0.33	0.47	0	1
Issue Iteration	2.18	0.97	1	4

[†]Because in the data matrix every lobbyist and their associated explanatory variables are entered once as the first lobbyist, and then again as the competing lobbyist, though the values of these variables differ in each observation, their summary statistics are identical. Thus I do not distinguish in this table between explanatory variables for the first and second lobbyists in each dyad observation.

Table 2
Strategic Probit Estimates of Lobbyist Support for a Policy Position
Maximum-Likelihood Estimates (Standard Errors)

Explanatory Variable	First Lobbyist Opposes (Believing the competitor opposes)	First Lobbyist Supports (Believing the competitor supports)	Competing Lobbyist Opposes	Competing Lobbyist Supports
Group Member Intensity	0.31*** (0.04)	–	0.13* (0.07)	–
Legislator Pressure	–	2.18*** (0.22)	–	−0.53*** (0.17)
Competitor's Resources	–	0.10** (0.04)	–	0.54*** (0.06)
Position Difference	–	0.13 (0.11)	–	0.15*** (0.04)
Interest Group's Age	0.01 (0.01)	–	0.09* (0.04)	–
Size of Lobbying Team	−0.15*** (0.03)	–	−0.11 (0.08)	–
Public Interest Group	−4.14*** (0.66)	–	−0.53 (0.64)	–
Group Has a PAC	0.39 (0.29)	–	–	−0.11 (0.09)
High Salience to the Public	−0.46*** (0.09)	–	–	–
Distributive Policy Domain	–	−0.20* (0.09)	–	–
Issue Iteration	−0.28*** (0.03)	–	–	–
Constant	–	0.98 (0.58)	–	–

*p < 0.05   **p < 0.01   ***p < 0.005

N = 3,890

Mean log-likelihood: −0.54

Percentage of observations correctly predicted: 75%

Proportional Reduction of Error: 46%

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