Generalist Interest Organizations and Interest System Density:
A Test of the Competitive Exclusion Hypothesis*

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Abstract

Objective. We examine the effects of interest community density on generalist interest organizations. A core element of population ecology theory is competitive exclusion, which suggests two hypotheses. First, through niche partitioning of the issue space among similar organizations and the comparative advantages of specialist organizations, generalists in heavily populated systems struggle to secure members more than their counterparts in less densely populated ones. Second, surviving generalists narrow the scope of their lobbying activities to fewer issues on which they hold comparative advantage. Methods. We test both hypotheses through regression analysis of data on the mobilization and lobbying focus of U.S. state Chambers of Commerce. Results. Both participation in state Chambers and the number of bills that Chambers track decline as the business interest community becomes more densely populated. Conclusions. We conclude that even state Chambers—the old bulls of the lobbying pasture—are powerfully influenced by competition among business interest organizations.
One of the core implications of the population ecology approach to understanding the development of interest communities is the competitive exclusion hypothesis (Gray and Lowery 1996a). This hypothesis suggests that, all other things considered, through niche partitioning—a restriction of the number of issues on which a group lobbies—among similar organizations and the comparative advantages of more specialized representation, generalists will find it more difficult to secure members as interest systems become more densely populated. While generalists may dominate thinly populated interest systems, when systems become densely populated and representation become more specialized, generalist groups will offer a less useful form of representation to potential members. It further suggests that the surviving generalists will restrict their lobbying activities to those issues on which they have a comparative advantage—those addressing the broadest scope of interests to potential members. This will narrow the range of lobbying activities among these generalist interest organizations in more crowded interest systems compared to those in less crowded systems.

While central to the population ecology approach, the competitive exclusion hypothesis has only been tested in a very indirect manner, largely looking at the balance of different kinds of interest organizations in more and less crowded interest systems and the frequency of entrance and exit from different sized interest communities. However, to our knowledge no one has yet looked specifically at generalist interest organizations. We address this gap here. After examining the concept of competitive exclusion, we develop and test the two direct hypotheses noted above by looking at the mobilization and lobbying focus of generalist business organizations. More specifically, we test the hypotheses with data on the size of the membership and scope of lobbying activities of U.S. state Chambers of Commerce.
Competition among Organized Interests

Over the last decade and a half, we have learned a great deal about how organized interests influence each other as they interact within more or less crowded interest communities. Such interactions were not considered particularly interesting two decades ago. Indeed, the mobilization of interests—whether from a Trumanesque (1951) or Olsonian (1965) perspective—were largely assessed from an exclusively individual-level perspective where incentives to join groups counted for everything and the resulting populations of organized interests were viewed as simple accumulations of mobilization events. And once having completed the hardest task of mobilizing, interest organizations, armed with a clever array of selective incentives, were then assumed to live forever (Olson 1982, 40). Further, lobbying was often characterized as an essentially isolated process in which each organization purchased advantage in the policy supermarket while hardly interacting at all with its fellow consumers (Olson 1982). While there are some important exceptions to this pattern, most notably the work of Heinz, Laumann, Nelson, and Salisbury (1993), the image offered in much of this prior literature was one in which organized interests barely noticed each other in either mobilizing or lobbying.

Largely under the rubric of organization or population ecology as developed by Gray and Lowery in The Population Ecology of Interest Representation (1996a) from population biology for political scientists, newer studies in political science have provided evidence that the life chances and influence activities of organized interests are significantly influenced by the level of crowding in an interest system. This shift in focus to the population level and its effects parallels a similar shift that took place in sociology beginning in the late 1970s (Hannan and Freeman 1977), continuing in the 1980s (Hannan and Freeman 1989), and accelerating in the 1990s.
(Aldrich 1999) and 2000s (Carroll and Hannan 2000). Rather than focus on individual corporations, firms, or organizations, these sociologists broadened their scope to whole populations and communities of corporations, firms, or nonprofit organizations. They tended to study the founding and disbanding of companies within one industry, their organizational forms, density-dependence processes, and age-dependence processes. Sociologists added a new twist to population biology by arguing that an organization’s legitimacy influences founding rates, and legitimacy is in turn influenced by the density of the population. Unlike in population biology, there is often substantial conflict among organizational ecologists over whether adaptation or selection is the more influential process leading to change.

In political science most importantly, scholars have found that the very sizes of interest systems seem to be self-regulating with environmental forces largely limiting how many groups can survive at a given time within an interest community (Lowery and Gray 1995a; Gray, Lowery, Fellowes, and Anderson 2005). Indeed, both the ease of mobilizing new interest organizations and the exit/mortality rates among existing organizations vary directly with the density of interest systems (Gray and Lowery 2001a; Nownes 2004; Nownes and Lipinski 2005). The resulting mix of responses of these environmental forces determines an interest community’s potential for diversity (Lowery, Gray, and Fellowes 2005). Interest system crowding also influences lobbying activity. Thus, patterns of lobby alliances (Hojnacki 1997) and the use of such influence tactics as political action committees (Gray and Lowery 1997a) vary systematically with the densities of interest communities.

Central to this analysis of crowding is the notion of competition for scarce resources interest organizations need to survive (Grote and Lang 2003), a point of departure broadly consistent with resource dependence theory in sociology (Pfeffer and Salancik 1978; Mizruchi
and Yoo 2002, 602). To this, organization ecology theory adds a quite specific interpretation of
how organizations of all kinds compete with each other (Hannan and Freeman 1989). That is,
niche theory, initially developed by Evelyn Hutchinson (1957) to understand the diversity of
biological species, looks at the relationship between a population of organisms and variables in
the environment that bear on the survival of that organism. In niche analysis, organisms can use
several combinations of vital resources to ensure survival. For example, all organized interests
require funding, but funding as a resource can come from several sources. Thus, money is a
required element of survival, but some groups may receive this resource through high
membership dues while others secure this resource through fundraising events and dinners.

The ways in which groups might obtain the necessary resources can be a balance of
several strategies so long as the group obtains some minimum amount of the resources required.
The total set of resource strategies that would guarantee survival is the organism’s or group’s
“fundamental niche.” As systems become denser, they become populated by organisms/groups in
direct competition with each other over the resources required to survive. Given competition
with similar species or similar organisms or similar organizations over strategies for obtaining
critical resources, the “realized niche” of most species is merely a portion of its fundamental
niche.1 Borrowing from this biological theory, scholars have conducted niche analyses on many
kinds of organizations (Baum and Singh 1994, 1996) as well as on populations of organized
interests (Wilson 1973; Browne 1990; Gray and Lowery 1996b; Bosso 2005; Dusso 2010).

Further, organization ecology theory suggests that competition among similar interest
organizations to establish viable realized niches operates more through competitive exclusion

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1 For example, in an isolated ecosystem, as the number of birds-of-prey increase, the direct competition between
them over vital resources also increases. The species can avoid competition with one another by specializing in a
certain time of hunting, or certain geographic area. Thus, each still requires some minimal amount of food to
survive, but can employ strategies to obtain that food that avoid direct competition. This kind of specialization is
preferable to conflict so long as the partitioned niche is sustainable.
than overt strife. That is, rather than engaging in potentially costly conflicts, competitors have a
tendency to avoid confrontation and increase specialization (niche partitioning). As Gause noted
for biological species, “as a result of competition two similar species scarcely ever occupy
similar niches, but displace each other in such a manner that each takes possession of certain
peculiar kinds of food and modes of life in which it has an advantage over its competition”
(quoted in Real and Levin 1991, 180; also see Lack 1947; MacArthur 1958). Similar results have
long been observed for interest organizations in terms of the issues on which they lobby (Browne
1990; Laumann and Knoke 1987; Wilson 1973), although Gray and Lowery (1996b) have
suggested that competitive exclusion is more likely to occur on other resource arrays more
central to interest organization survival, especially those associated with securing members and
finances.  

We also now have considerable indirect evidence that such niche partitioning takes place
among organized interests. The most powerful evidence is the increased mortality risk of
organizations observed as interest systems become more dense and crowded. In these crowded
systems, organizations have partitioned resource strategies so narrowly that smaller niches are no
longer sustainable (Gray and Lowery 1997b; Nownes and Lipinski 2005; Nownes 2010). Those
with smaller base numbers of members, finances, or other critical resources run an increased risk
of dying if unexpected drops in these resources occur (Raup 1991). These extremely narrow
niches provide less direct competition with other groups, but when they become excessively
specialized they are less robust to environmental changes in resource availability. This is, of
course, especially likely to be the case for new organizations founded on comparatively small

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2 For other views on niche theory see Heaney (2004, 2007) who argues that interest groups build identities on
multiple dimensions, including issues, representation, ideology, and advocacy methods. Also see Chamberlain
(2009) who found that among gay and lesbian groups, those formed after the density-dependence stage was reached
did not engage in niche-seeking behavior.
resource niches. Such organizations run a special risk labeled the “liability of newness” (Hannan and Freeman 1989). And, indeed, interest communities in both the American states (Anderson, Newmark, Gray, and Lowery 2004) and the European Union (Berkhout and Lowery 2011) have been found to have a u-shaped age structure such that they are comprised of many large old bulls—semi-permanent interest representatives that rarely die—and many smaller mayflies—short-term visitors who arrive but then leave soon or do not survive.

Moreover, we have substantial indirect evidence of competitive exclusion in the changing relative frequencies of direct lobbying by institutions (organizations with no members, such as businesses) and their lobbying through associations (organizations of institutions, e.g., Chambers of Commerce). The frequencies of direct and collective lobbying by institutions are related to each other given that institutions can choose to lobby through either or both forms with the former substituting for exclusive reliance on the latter. As the proportion of freestanding institutions in lobbying communities has increased with growing density, the association form has declined as a proportion of state lobbying communities. Indeed, this phenomenon has actually entailed a real average reduction in the numbers of associations enrolled on state lobby registration lists (Gray and Lowery 2001b). Thus, a relative, and, at times, an absolute decline in association lobbying has accompanied the explosion of direct representation by institutions in crowded interest communities. While direct lobbying by institutions has never been uncommon, this change is striking because institutions have traditionally relied more on collectively lobbying through associations (Wilson 1973, 143-179; Aldrich et al. 1994). Further, peak association lobbying has long been viewed to be collectively or socially more desirable as it is thought to be associated with a process of internal accommodation of demands rather than piecemeal purchasing of policy (Olson 1982).
While certainly suggestive, this body of evidence remains incomplete for two important reasons. First, it is largely comprised of highly aggregated results that speak more to tendencies and patterns across whole populations of organized interests rather than to the experiences of specific interest organizations therein. At such highly aggregated levels of analysis, it is therefore difficult to determine whether the processes cited by niche theory and the competitive exclusion principle that are presumed to lead to increased risks of interest organization mortality or the altering of lobbying strategies and tactics are truly affecting observed behavior. There are, of course, many case analyses of individual interest organizations or small sets of organizations that also speak to these and related issues (e.g., Moe 1980; Rothenberg 1992; Smith 2000; Bosso 2005). But these otherwise notable analyses are often limited for our purpose given that interest system density is typically a constant in such studies. We need, instead, useful variation in the densities of interest systems over time or space for a small set of quite similar lobbying organizations.

And second, the aggregate studies of organization mortality are necessarily more attentive to what happens to those interest organizations relying on relatively narrow niche arrays. As noted above, such reliance is especially the case with newer interest organizations. This attention is understandable since organizational death or withdrawal from lobbying is a readily observed and fairly unambiguous consequence of competition for scarce resources. Further, such organizations are often of substantive concern since they often represent new and emerging interests in society (Berry 1999). But the fate of the old bulls—the large, general interest organizations—is equally of substantive import given longstanding notions that they provide for an especially desirable form of interest accommodation via their internal deliberations over policy targets (Olson 1982). Yet, despite the modest decline in the average number of
associations in state interest systems (Gray and Lowery 2001b), these generalists rarely leave the lobbying scene entirely. If they too are influenced by the competitive pressures associated with resource dependence, then we will need to examine a set of less crude indicators than merely the numbers leaving lobbying rolls.

In the analyses that follow, we address both of these concerns by developing and testing two hypotheses about the effects of competition with other business interest organizations on state Chambers of Commerce. The states, of course, provide an ideal opportunity to test the hypotheses given the considerable variation in the densities of their interest communities, the principal causal factor underlying niche analysis and the competitive exclusion principle. And Chambers of Commerce provide an especially appropriate focus of the analysis since they have long been and remain the premier generalist business association at both the state and national levels. Further, they have long been reputed to exercise considerable influence at both levels of government (Thomas and Hrebenar 1999; Smith 2000). By examining the impact of interest system crowding on the mobilization and lobbying of state Chambers of Commerce, we highlight the importance of competition among organized interests for even the toughest and largest of the old bulls roaming the interest group pasture.3

The size or density of the interest community is expected to both feed back onto processes of and forward to the lobbying practices organizations employ within the influence production process (Holyoke 2003). We examine one hypothesis representing each of these two kinds of consequences. First, we hypothesize that, all other things being equal (especially free riding, as discussed below), generalist business associations retain as members a smaller proportion of their potential constituency as interest communities increase in size. The core of

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3 Additionally, Halpin and Jordan (2009) have asserted that one of the more effective ways to push population ecology literature forward is through studying group behaviors, rather than group births and deaths. By studying mobilization and lobbying, we are doing exactly that.
this expectation—that associations with large memberships have a difficult time accommodating the diverse needs of their members—is a common one in the literature (Truman 1951; Wilson 1973; Heinz, Laumann, Nelson, and Salisbury 1993; Smith 2000). But such disputes are not likely to be too telling for generalist associations like Chambers of Commerce if there are few alternatives for representation of interests. Thus, in states where there may not be sufficient numbers of constituents of more specialized interests to form a viable independent interest organization, members are more likely to remain within the generalist association. But in states with many other more specialized business organizations, those who may be dissatisfied by the lobbying—or selective incentives—of the generalist organization should be more likely to give up their generalist membership in favor of the specialist. As a result, state Chambers of Commerce should represent a smaller proportion of their broader potential constituency in states with many other business interests than in those with fewer.4

At the extreme, of course, such competition for members may lead to a complete loss of generalist organizations. This possible scenario involves a complete competitive exclusion of generalist associations in favor of specialist associations and institutions. Just as only a generalist finch species survives on smaller Galapagos Islands supporting but a single species, and are displaced on larger islands in the chain by two or more specialist finches (Lack 1947), specialist modes of representation could fully replace peak associations as states’ populations of business interests become larger. And indeed, the severe weakening of generalist agriculture interest associations associated with the rise of specialists noted by Browne (1988, 1990) is consistent with this kind of extreme outcome of competitive exclusion.

Still, state Chambers of Commerce have not yet disappeared. It is also possible, therefore,

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4 The principle of competitive exclusion would predict membership loss for any generalist groups when organizations with more specialized niches develop. Smaller generalist groups would die off, but the large, stable Chambers of Commerce are capable of sustaining themselves even in a competitive environment.
that specialists and generalists will learn to co-exist via specialization on distinctive issue niches. Indeed, many institutions simultaneously lobby directly and through specialist and generalist associations. Under this scenario, the growth of specialist associations will not actually reduce the growth rate of all associations or the mortality of specific, already-existing generalists even if the latter’s membership is somewhat reduced. Instead, the behavior of generalists and specialists will diverge so that they each take on different tasks within the business lobbying community.

More specifically, we expect that generalists and specialists would focus on different kinds of legislation in deciding what to lobby on. The logic underlying this second hypothesis also rests on the long observed difficulties generalist business associations have in accommodating the diverse needs of their members (Truman 1951; Wilson 1973; Heinz, Laumann, Nelson, and Salisbury 1993; Smith 2000). We expect that in crowded communities of business interests, state Chambers of Commerce focus more on legislation of common interest to business generally and leave the more controversial issues to their specialist competitors. While we do not test this general hypothesis directly, it implies a more specific implication that we will test—that Chambers in more crowded systems express interest in fewer bills than those in less crowded systems.

Both hypotheses should be understood to hold within the standard ceteris paribus conditions influencing most social science research. And we will have opportunity when we turn to testing to introduce a number of control variables. But with respect to the first hypothesis on membership, one point deserves special note. While perhaps over-employed on issues for which other theories provide better accounts of the lobbying phenomena in which we are interested (Baumgartner and Leech 1998, 64-82), Olson’s (1965) logic of collective action argument remains an intellectually powerful notion for understanding why individuals join organizations.
Thus, we must account for Olson’s claim that the probability of free riding varies positively with the number of potential organization members. To leave out this alternative risks confounding collective action/free riding problems with the environmental influences of increased competition in predicting businesses joining state Chambers of Commerce. Indeed, the model used below to test the membership hypothesis is best viewed as being first an Olsonian model with the addition of a supplemental factor—the availability of alternatives for representation—that Olson did not address in either his original work on collective action (1965) or his later work on collective versus specialist representation (1982).5

Testing the Hypotheses

Data and Measures

We test, then, two implications arising from the concept of competitive exclusion using data on state Chambers of Commerce, the broadest state business lobby organizations. The first observation meriting attention is that, despite their prominence in the political process more broadly, state Chambers of Commerce have not been established in five mostly smaller states: Utah, Nevada, Rhode Island, Idaho, and Iowa. Thus, it seems that for at least some small states, some combination of problems of collective action and competitive exclusion may indeed be so severe that mobilization fails. In any case, four of these states were necessarily excluded from the analysis. But while Utah has no statewide Chamber of Commerce, the unusual dominance of Salt Lake City in its economy and political system led us to use its City Chamber of Commerce as an alternative source for membership and lobbying data.6

Starting with the first hypothesis on mobilization, the dependent variable is participation

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5In this work, Olson again largely assumes that organized interests rarely interact with one another.
6Indeed, the Salt Lake Chamber claims to be the major representative of business before the state government or a functional equivalent of a statewide Chamber in the state. The respective membership and lobbying numbers do not seem out-of-line with those of comparably sized states and, in any case, inclusion or exclusion of Utah did not discernibly change the results of the analyses to follow.
rate, or the number of members of a state Chamber of Commerce divided by the total number of business establishments in a state. In order to gather the data on business associations in the states, we first visited state Chamber of Commerce websites in June and July of 2010, following up in 21 cases with direct phone contacts where information on membership was not provided on the web. The denominator in the ratio measure is the number of business establishments in a state—the number of physical locations where business is conducted or where services or industrial operations are performed, as provided by NAICS.7

The resulting participation rates proved problematic for two states: Maine and Delaware generated participation rates that were much higher than those of other states. Indeed, they were more than twice the size of the next highest state. Closer examination of the Maine results indicated that in an unusual practice it allows dues-paying membership for “micro-businesses” that employ only one or two individuals. Given that the Maine Chamber would not provide any more specific figure for membership comparable to those of other states, we were forced to drop it from the test of the first hypothesis. The unusual character of the Delaware case was more difficult to explain, although it may result from the large number of large corporations registered in the state. We therefore excluded it from the test of the first hypothesis as well.8 The resulting state average participation rate was 1.94 percent and ranged from a low of 0.20 for Pennsylvania to a high of 5.06 percent for Vermont.

The key independent variable in the analysis is the total number of business lobbies in the states. We expect that participation rates in Chambers of Commerce decline as the number of

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7 We obtained these data at http://www.census.gov/econ/census02/data/us/US000.HTM. We also examined firm data where a firm is a business organization consisting of one or more domestic establishments in the same state and industry that were specified under common ownership or control. The firm and the establishment are the same for single-establishment firms. Because number of firms and establishments are highly correlated (r=0.99), we present only the results for establishments.

8 Inclusion of Delaware produces substantively similar results to those reported here. Results are also robust to the inclusion of a control for 2009 Gross State Product as a measure of the size of state economies.
alternative vehicles for representation increase in number. Unfortunately, the most recent data
now available in counting other business lobbies are 1999 data on state lobbying registrations.
These data and how they were collected and coded are described in Lowery, Gray, and Fellowes
(2005). Fortunately, it seems that despite rare booms and busts (Brasher, Lowery, and Gray
1999), the total size of the interest organization population in the states at higher levels of
aggregation typically change rather slowly. To generate a measure of total business interests
from the 1999 data, we subtracted from the total numbers of registrations those organizations
listed in non-business guilds of interest organizations. The state average was 552 business
lobby organizations, ranging from a high of 1,630 in Texas to a low of 140 in North Dakota.

We include total number of business lobby organizations in the model in a second order
polynomial form since, given the large numbers of business organizations in the states, the
marginal impact of even more alternatives to the Chamber of Commerce after some point should
decline. As noted earlier, we test the competitive exclusion hypothesis on mobilization in the
context of an Olsonian model of collective action. The model includes, therefore, a measure of
the total size of the pool from which state Chambers of Commerce draw their members. We
measure this with the total number of establishments, the denominator of our ratio dependent
variable described earlier. This too, following Lowery, Gray, Anderson, and Newmark (2004), is
included as a second order polynomial, given the expectation that, as the number of potential
members of Chambers of Commerce becomes large, further free-riding incentives have a
declining marginal impact on joining.

Finally, the model includes two other control variables. The first is the number of bills

9Indeed, the simple correlation of the totals of registrations in the states from 1990 and 1999 is 0.83.
10 These included organizations focused on civil rights, education, the environment, good government, government,
law, the military, police and fire departments, religion, sports, tax issues, and women’s issues. For a description of
the other remaining categories of interests, see Lowery, Gray, and Fellowes (2005).
passed by state legislatures as a measure of the demand for lobbying that might encourage potential members to join (Leech, Baumgartner, La Pira, and Semanko 2005; Gray, Lowery, Fellowes, and Anderson 2005). We expect that more legislative activity will generate a higher rate of joining.\footnote{We also examined the number of bill introductions and the proportion of introductions that were eventually enacted by the legislature as measures of legislative activity. Unfortunately, the states vary widely in terms of both, given quite varied rules about who can submit bills (sometimes including citizens), when they can do so, how they carry over from session to session, and session length, variables that would be difficult to control for in a model with limited degrees of freedom. In contrast, total numbers of bills enacted do not seem to be greatly influenced by these institutional variables.} Finally, in several states, the state Manufacturing Association, the other major business organization, is affiliated with its state Chamber of Commerce. We include a dummy control to denote such states.\footnote{We tried to account for the effects of such affiliations in a variety of ways, including interacting the dummy with the other variables. All produced similar results, thus leading us to use the simplest dummy variable specification.} Our expectations with respect to this variable are mixed. Such affiliation may obviously inflate numbers to the extent that a new class of members is added to the organization’s rolls. But it might just as well lower participation rates to the extent that the Chamber is viewed as a vehicle for representing manufacturing interests and, thereby, becomes less attractive for the representation of non-manufacturing interests.

Turning to the second hypothesis on lobbying scope, the dependent variable is measured by the number of legislative bills tracked in the most recent legislature.\footnote{These lobbying activity web pages generally also contained lists of broad issue priorities in which the organization lays out its stance/policy position on important topics like health insurance or immigration. We coded these as well. Unfortunately, there was not sufficient variation in this alternative measure to allow for meaningful analysis. It seems that the numbers of issues mentioned is more restricted by the constrained format of web pages than by the real activity of the state Chambers as measured by the number of bills tracked.} The web pages of most state Chambers of Commerce report a list of bills in the state legislature that are of interest to the business association. In cases where such data were not reported, we contacted state chambers in June and July of 2010 to secure the information. Although we have seen in the discussion of the previous hypothesis that we necessarily excluded Delaware and Maine from that analysis, they are included in the test of the lobbying scope hypothesis.\footnote{Membership is included, as discussed below, in this second model as a resource or capacity variable. While the...
an extreme outlier in the number of bills its state Chamber tracked. The Tennessee Chamber claimed that it tracked 2,000 out of a total of 3,743 bills that were introduced even when its number of bills enacted was not unusual and the next highest number of tracked bills by a Chamber was 820 in Florida. Given its extreme value, we are not at all confident that the Tennessee Chamber’s measure means quite the same thing as those of other states. We therefore opted to exclude Tennessee from the analysis.15

The average number of bills tracked was 123, ranging from Florida’s high value of 820 bills to a low of only one bill for Kentucky. Indeed, four states reported fewer than 10 tracked bills. Obviously, even if not so extreme as Tennessee, there remains considerable heterogeneity in this measure resulting from perhaps different standards of measurement or interpretations of what bill tracking entails. But there is no further obvious pattern of variation in the measure other than Tennessee’s extreme outlier status. We cannot readily distinguish these several cases with low levels of tracking from simply having an unambitious agenda. But while such heterogeneity may make it difficult to find statistically discernible results, it still potentially provides at least a crude indicator of the most minimal form of lobbying activity—the monitoring of legislative processes and outputs—comparable across the states.

The key independent variable is again the total number of business lobby organizations as discussed in the previous model. We expect that as the number of business lobbies active before a state legislature increases, the issue space will be partitioned so that each Chamber focuses on a more restrictive range of issues. Thus, the relationship between the number of bills tracked and the number of lobby registrations by business organizations should be negative. The scope of

15 Including Tennessee reduces the magnitude of our main independent variable of interest and renders it statistically nonsignificant. However, the estimate remains signed in the expected direction. Also, results are robust to the inclusion of a control for 2009 Gross State Product.
legislative activity model also includes two control variables. We again include both the total number of business establishments and the total number of bills passed by the legislature in a state (both discussed previously) to control for the size of the task demands facing a state Chamber of Commerce. The perceived need for Chamber monitoring should increase with the legislature’s level of enactment activity and the number of businesses in a state. Finally, some Chambers have more organizational capacity for legislative activity than others. We control for this by including in the model the total membership of the state Chamber of Commerce, the numerator of our dependent variable in the test of the first hypothesis on mobilization.

There was only one significant estimation issue and it concerned the first hypothesis on mobilization. Simply put, there are good theoretical reasons to expect that our measures of Olsonian free riding and the key independent variable on the total number of business lobbies are closely related. That is, the energy-stability-area (ESA) model of interest system density suggests that the latter is powerfully a function of the former (Lowery and Gray 1995a). Thus, we should expect high levels of collinearity between these measures even before we add the complication of their inclusion as second order polynomial indicators. And, indeed, the $R^2$ values generated from regressing the independent variables in the mobilization model are exceedingly high, all above 0.95. Therefore, given the limited degrees of freedom, we employ somewhat relaxed criterion values in assessing statistical significance.

Results

The mobilization hypothesis is tested with the results reported in Figures 1 and 2 and in Table 1. Figures 1 and 2 address, via simple graphic illustration, our two major hypotheses about mobilization using a second-order polynomial specification while ignoring other variables, that is, Olson’s (1965) collective action hypotheses and our hypothesis about competitive exclusion.
As seen in Figure 1, the data provide strong support for Olson’s expectation that participation rates in state Chambers of Commerce decline as the number of businesses in a state increase. That decline is almost linear for most of the states, only bottoming out for the states with the largest business communities where, presumably, incentives to free ride have been fully exhausted. But a similar relationship is observed in Figure 2, which regresses participation rates not on numbers of business establishments, but on number of business lobby organizations. As expected by the competitive exclusion hypothesis, participation rates decline, if in a decreasing manner, as numbers of alternative modes of representing business interests increase. Thus, there appears to be some initial support for our first hypothesis.

[Insert Figures 1 and 2 Here]

These relationships fully survive the introduction of our two control variables—the number of bills passed by a state legislature and the formal affiliation (or not) of state Manufacturing Associations with state Chambers of Commerce—as seen in the first rows of the first two columns of Table 1. In both partial models, both the nominal and squared terms of the respective core variables representing the collective action and competitive exclusion accounts are statistically significant and indicate a negative relationship with participation, decreasingly so as the nominal value of the variable becomes larger.

[Insert Table 1 Here]

The real test, however, depends on whether these relationships survive when both the free riding and competitive exclusion variables are included in the same model given the close theoretical and empirical relationship between the variables used to test the two explanations. As seen in the last column of Table 1, they do. Despite high levels of collinearity, both business establishment variables and business lobby variables retain their signs and are discernible at the
0.10 level. Importantly, however, the magnitudes of the estimates for the nominal and squared values of the Olson variables do not change markedly from those reported in the first column of the table. Thus, it seems that collective action issues exercise considerable independent influence on decisions to join state Chambers of Commerce that is not greatly limited by how many competitor business interest organizations there are in its environment.

In contrast, the estimates for the two competitive exclusion variables, especially the nominal term, decline more significantly. Thus, it seems that the powerful pattern reported in Figure 2 was tapping issues of collective action in addition to the results of competition among business lobby organizations for members. Still, competition does seem to matter. In the presence of competition from other business interest organizations, participation in a state Chamber of Commerce is lower than it might otherwise be with fewer alternatives for representing business interests, and this is especially so at the lowest levels of competition or when the first alternatives to state Chambers become available to potential members. The estimate in the third column of Table 1 suggests that each standard deviation change in the nominal number of business lobby organizations is associated with a 0.88 standard deviation reduction in the rate at which business establishments choose to join their state Chambers of Commerce. In sum, these results provide support for both the collective action and competitive exclusion hypotheses about mobilization.

Turning to the two control variables, we had quite mixed expectations about the variable measuring affiliation with state Manufacturing Associations. The negative estimates in all three models indicate that such affiliation depresses Chamber of Commerce participation, perhaps as a result of altering the identity of state Chambers of Commerce so that they might be less attractive to non-manufacturing firms. The estimate is discernible at the 0.05 level in Models 1 and 3, but
only at the 0.10 level in Model 2. Contrary to expectations, legislative activity generated negative estimates in all three models with not inconsiderable t-statistics in Models 2 and 3. We have no ready explanation for this unexpected result after examining a number of possible explanations, including whether low levels of legislative productivity reflect high levels of party conflict in the states or whether they reflect high levels of opinion liberalism, both of which might be expected to attract more members to a pro-business lobby organization. But perhaps more to the point for our purposes, all else remained the same in terms of signs and significance when our intended measure of legislative activity was excluded from the model.

The results for the test of the scope of lobbying hypothesis are presented in Table 2. Model 1 includes the three controls only without including the critical number of business lobby organizations variable. It is included in Model 2. Starting with the control variables and in marked contrast to the last set of results, our first measure of the demand for lobbying—number of bills passed—generated the expected positive and significant estimates in this model. The second measure of demand—the number of business establishments in a state—produced the expected positive and significant estimate in only the full model when we control for number of business lobbies. And the indicator of organizational capacity to lobby—state Chamber of Commerce membership—generated estimates of mixed sign in the two models. But neither was statistically discernible at even relaxed criterion levels.

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16 When measures of opinion liberalism and a Ranney index of party competition were included, neither generated discernible estimates (t=0.30 and t=0.17, respectively) and all else remained substantively the same.
17 Another possibility is that we are picking up some evidence of reverse causality if—and it is a very big if given their support for spending on concerns of business, such as road building—the main purpose of state Chambers of Commerce is to stop legislation and if a high rate of participation in Chambers is evidence of its strength as a lobby organization. Investigating this complex account of one odd estimate, however, is beyond the scope of this paper.
18 Given the issue raised in the first set of results with the measure of legislative productivity, the second set of models was also examined including both opinion liberalism and a Ranney index of party competition. The latter produced an estimate very close to zero. But the former generated a positive estimate with a t-statistic (1.51) that was close to conventional levels of statistical significance. But nothing else changed in the results in terms of the signs of the estimates or their significance. Given this, and more importantly lacking a good theoretical reason to include either in the model and the fact that number of bills passed generated the expected positive and significant estimates, both additional variables were excluded from the results reported in Table 2.
Of greater concern, the estimate for number of business lobbies, which was included to assess the competitive exclusion hypothesis on scope of lobbying activity, generated the expected negative estimate, an estimate discernible at the 0.10 level. While the relationship is not overly strong in statistical terms, it is still perhaps notable given the considerable heterogeneity in our measure of the dependent variable, the number of legislative bills tracked by state Chambers of Commerce. Even with what is perhaps a somewhat messy measure of the most basic mode of lobby activity—tracking bills—we have found evidence that crowding in the business lobbying environment does lead to reduction in the work taken on by state Chambers of Commerce. And that reduction is not inconsiderable. The estimate in the second column of Table 2 suggests that each standard deviation change in business lobby organizations is associated with a 0.36 standard deviation reduction in the number of legislative bills that Chambers of Commerce track.

**Conclusion**

The population ecology approach in political science was developed from core principles of population biology in order to understand interest organization populations. While it has some overlap with organizational ecology in sociology, political scientists, especially Gray and Lowery, are more apt to analyze thousands of organized interests registered to lobby in the interest communities of the fifty states, while sociologists are more likely to follow the evolutionary processes within one industry such as brewers, telephones, automobile manufacturers, or technology companies. Scholarship within the population ecology tradition of political science, along with its attendant niche theory and the competitive exclusion principle, suggests that lobby organizations do not exist in isolation. Rather, they survive—or fail to
survive—in a highly competitive market of representation. That competition likely influences all of what they do, from their mobilization efforts to their lobbying activities. To date, however, much of the evidence of such effects has been developed largely at highly aggregated levels addressing the overall size and diversity of whole lobbying communities. The key insights from this prior research are that the mortality of organizations—their withdrawal from lobbying—and how they lobby is powerfully conditioned by how many similar organizations exist in their environment. But we have not yet had any persuasive evidence that such forces also bear on the large, semi-permanent representatives that are very unlikely to actually perish in the face of competition and who would seem to have a free choice on what to lobby and how to do so.

The evidence presented here suggests, however, that even such old bulls as state Chambers of Commerce are not immune to pressures of competitive exclusion. On perhaps the most basic measure of mobilization, the numbers of business establishments that choose to join state Chambers, the availability of alternative modes of representation of business interests matters. This appears to be especially so at even low levels of competition, something that is likely to be found in states with smaller interest communities. And on the most basic measure of lobbying, the simple monitoring of legislation, enhanced competition from other business interest organizations is associated with a narrowing of the scope of legislation monitored by Chambers of Commerce. Thus, even groups that face a limited threat of mortality encounter the competitive pressures of niche overlap and partitioning. While Chambers of Commerce and other mostly permanent groups have developed representational niches large enough to survive some competition, they still partition their behaviors in response to specialist competitors. An interesting extension of this work might ask, why, given their considerable resource advantages and adaptability, do old bulls like Chambers of Commerce partition rather than engage in
conflict? If any groups can sustain the losses from conflict with competitors, it would seem to be these oldest, most stable groups. Future work could also assess the extent to which these patterns apply to other large, generalist organizations in the states.

Neither of our results should be taken to suggest that these competitive pressures weaken overall business representation of its interests, or that state Chambers of Commerce necessarily find this an unfortunate state of affairs. Specialization in mobilization has considerable advantages in terms of a finer, more nuanced representation of interests. And a sharing of lobbying responsibilities across many business interests is likely associated with more constrained business lobbying, not less. But such competitive exclusion surely matters for the individual organizations themselves and perhaps, if both Truman (1951) and Olson (1982) were correct about the collective importance of the internal accommodation of interests within peak organizations, for society and politics as well.

More broadly speaking, this research speaks to the power of the organizational ecology approach to the study of many types of political organizations. Existing organized interest research has focused largely on the utility of organizational ecology in explaining the deaths of organizations, but we have presented evidence that even those organizations least likely to perish are responsive to ecological pressures. Indeed, Carroll and Hannan (2000) have demonstrated that organizational ecology provides a useful perspective for the study of non-political organizational behavior in automotive corporations. Additionally, Lowery et al. (2010) have shown that even political parties in multi-party systems are subject to ecological pressure and competition. Combined with these, our results indicate that organizational ecology is a highly portable and valuable paradigm for the study of many political and non-political organizations and systems, not just those facing the possibility of demise.
References


Browne, William P. 1988. Private Interests, Public Policy, and American Agriculture. Lawrence,


Core. Cambridge, Massachusetts: Harvard University Press.


Figure 1: Participation Rate in Chamber of Commerce by Number of Business Establishments, 43 States

\[ y = 9E^{-12} x^2 - 1E^{-05} x + 3.232 \]

\[ R^2 = 0.3243 \]

Figure 2: Participation Rate in Chamber of Commerce by Number of Business Organizations, 43 States

\[ y = 2E^{-06} x^2 - 0.0055 x + 3.9922 \]

\[ R^2 = 0.2623 \]
Table 1: Collective Action and Competitive Exclusion Determinants of Chamber of Commerce Participation Rates

<table>
<thead>
<tr>
<th>Variables</th>
<th>Model 1</th>
<th>Model 2</th>
<th>Model 3</th>
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<td>Coefficient</td>
<td>Coefficient</td>
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<td>(t-statistic)</td>
<td>(t-statistic)</td>
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<td>Business Establishments</td>
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<td>-1.21** (-2.28)</td>
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<td>Business Establishments²</td>
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<td>-0.88* (-1.48)</td>
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<tr>
<td>Bills Passed in Legislature</td>
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<td>-0.25* (-1.61)</td>
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<td>Constant</td>
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<td>R²</td>
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** p < 0.05; * p < 0.10, one-tailed tests. Cells report standardized OLS coefficients with t-statistics in parentheses.
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<tr>
<th>Variables</th>
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**R^2**

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N 44

**p < 0.05; * p < 0.10, one-tailed tests. Cells report standardized OLS coefficients with t-statistics in parentheses."