



Drawing Lobbyists to Washington: Government Activity and the Demand for Advocacy

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Using an agenda-setting approach, we show the interaction between the growth of groups and the growth of government. A pooled time-series analysis of more than 45,000 lobby registration reports from 1996 to 2000 and measures of government activity from the Policy Agendas Project indicates that groups become active in Washington, D.C., in large part because of pre-existing levels of government activity in the issue-areas that concern them. The growth in the range and number of activities of government has created incentives for organizations of all kinds to mobilize, whether they are supporters or opponents of new government programs. We find that levels of government attention in an issue-area explain the level of interest-group lobbying more consistently than does government spending or the number of business firms in that area. We conclude with a discussion of the need for theories of group mobilization to include attention to the demand-creating actions of government itself.

The growth and proliferation of interest groups in the United States has long been considered a major cause of growth in the size and scope of the U.S. government. Scholars taking a historical approach have linked the rise of social movements in the Progressive Era to government expansion (Tichenor and Harris 2002/2003), while across the discipline, public choice theorists have pointed to rent-seeking by interest groups as a driving force behind government regulation and spending (e.g., Buchanan and Tullock 1962). The myriad social movements over the past four decades have led to new programs affecting women, minorities, consumers, and the environment, while professional communities have successfully convinced government to get more involved in health care, education, transportation, and other areas. Groups are, or should be, central to any explanation of the growth of government. The reverse is also true. Groups have mobilized in Washington in response to the growth of activities of government. As government has grown more active in a greater range of areas of public policy, organized interests have followed. Government can provide the incentive for new groups to arise and for existing groups to mobilize around a particular set of issues. Governmental patrons have provided start-up funds for new groups (Walker 1983, 1991; Smith and Lipsky 1993, Cigler and Nownes 1995), while governmental programs have provided something worth organizing to

protect (e.g., Campbell 2003). Whether they are supporters or opponents of new government programs, groups clearly co-evolve with government in a dynamic progression that leads each to affect the other.

Within this reciprocal process, a puzzle remains. How and why do certain issues and certain issue-areas become the focus of interest-group attention and lobbying? Baumgartner and Leech (2001) have shown that among interest groups in Washington, the majority of the lobbying is focused on a small fraction of the issues. What causes that mobilization? The exigencies of collective action suggest that it is unlikely that groups could be driving this process alone, but that in fact growth in the interest-group population must depend on the growth of government itself. Although interest-group entrepreneurs may be instrumental in suggesting new policy alternatives, in most cases government actors must act on those suggestions if the lobbying community in that policy domain is to grow beyond a select few.

In this article we provide detailed evidence to document this close relationship between government activity and interest-group communities, and we work to further specify the relationship.¹ The theory we develop draws on ideas from theories of collective action, social movement mobilization, and population ecology. Our focus is the role of the political environment—and in particular, government

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¹ Since this article was first drafted, two of us in other work have approached this question by tracing the growth of the group system over long periods of time and relating that to the growth of government (Baumgartner, Leech, and Mahoney 2003). To date, few have studied the interrelations between group and government growth, though Gray and Lowery have begun to pay serious attention to this issue (see Lowery et al. 2004, Gray et al. forthcoming). They find a significant relation between the number of groups mobilized to lobby state governments and the level of activity of the state governments in a range of issue-areas. In sum, an emerging body of literature is beginning to address these questions, but the literature is in its infancy.

attention or lack thereof—in encouraging or discouraging interest group mobilization. We predict that levels of lobbying will increase as government activity increases, but we expect these processes to be issue-specific. Certainly there are aggregate effects as well, and we will discuss some of these in our conclusions, but our main focus is on a comparison across different issue-areas. Government involvement in regulation of transportation should not be expected to increase lobbying on trade policy; and proposals to end tariffs on textiles should not be expected to raise the level of lobbying on welfare policy. In essence, a governmental decision to become involved in an issue area sets the agenda for existing and potential organized interests, who are thus encouraged to come to the capital to defend their interests and advocate particular solutions to perceived problems. This, essentially, is the demand side of why interest groups become active in particular areas of public policy.

GROUPS, INTERESTS, AND MOBILIZATION

While internal characteristics of organizations are clearly important factors in mobilization (e.g., Olson 1971), an emerging consensus within the study of political behavior at many levels encourages us to look at the interaction between those internal characteristics and the external political context in which individuals and organizations find themselves. Huckfeldt and Sprague (1987) pioneered the inclusion of community as a variable in voting behavior studies. The social movement literature has turned its attention away from grievances and resources and toward such issues as political opportunities and framing structures (McAdam, McCarthy, and Zald 1996). Gray and Lowery's (1996) population ecology approach to interest-group populations shifted the focus to the energy, stability, and area within an interest-group environment, while a series of scholars has begun considering the issue context in which particular organizations make lobbying decisions (Baumgartner and Leech 1996, 1998, 2001; Hojnacki 1997; Hojnacki and Kimball 1998; Kollman 1998; Leech 1998). Finally, in the study of policymaking more generally, scholars have moved beyond the consideration of resources and individuals in policy outcomes to also consider the broader effects of agenda-setting and issue-definition (e.g., Baumgartner and Jones 1993, 2002; Jones 1995; Leech et al. 2002).

The political context or environment is an essential part of any explanation of the size and scope of the interest-group system. Even in a hypothetically ideal pluralist world in which all points of view were represented fairly, there would be no reason to expect that all points of view would mobilize and lobby equally. If government had no authority over or involvement in an issue-area, then there would be little point in forming an interest group to lobby in that area. This suggests, therefore, that we should expect mobilization to occur not when an opinion or need exists in the world, but when that opinion or need *and the possibility of government action* intersect. This, indeed, is the definition of "interest" presented by Heinz et al. (1993: 24):

It is at the intersection of public policy and the wants and values of private actors that we discover interests. What we call the interests of the groups are not simply valued conditions or goals, such as material riches, moral well-being, or symbolic satisfaction. It is only as these are affected, potentially or in fact, by public policy, by the actions of authoritative public officials, that the valued ends are transformed into political interests that can be sought or opposed by interest groups.

If "interests" are created by the actions of government, then interest-group mobilization must be affected as well. As government becomes more active in a particular area, so too will the interest groups that correspond to that area. That is, we should expect government activity to affect lobbying activity. If it does not—or if it does so for some types of interests but not for others—then representation is threatened. For this reason, studying populations of interest groups and their policy context is equally as important as studying individual groups and their resources.

Gray and Lowery (1996) explicitly focus attention on these processes by adopting the ESA—energy, stability, area—theory from population ecology. They argue that the number of interest groups in a population will depend not only on the number of potential members and other resources organizations have (the area), but also on the interests created by potential government goods, services, and regulations (the energy). This energy term corresponds closely with the concept of political environment or political context that we use in this study.

Most studies of collective action have focused on the initial formation of groups, but the problems of mobilization do not end after an organization is formed. No organization has unlimited resources, and no organization wants to expend effort on a hopeless cause. Thousands of bills are introduced each year, yet only a handful become the focus of attention. Interest-group entrepreneurs working on an issue that is not already the focus of government activity will find it extremely difficult to mobilize other groups. The probability of success seems small, hence other interest groups, whether for or against the issue, will not mobilize. Studies as diverse as Bauer, Pool, and Dexter (1963), Grier, Munger, and Roberts (1994), and Martin (1995) all document such cases of free riding and failed or sub-optimal mobilization by organizations. For organizations planning lobbying strategies, the greatest uncertainty in Washington is not whether their side will win or lose a floor vote, but whether their issues will be attended to at all. Government activity works to reduce this uncertainty and therefore acts as a catalyst to mobilization. While mobilization is certainly *possible* without government involvement, it will be extremely difficult, and therefore rare. Day-to-day decisions about lobbying are not made without great weight being given to the government's attention to the issue.

Olson (1971: 22) notes that a small group will mobilize even without selective incentives or coercion if the potential collective good is valuable enough to its individual members *and* it is possible for the individual to attain success on

its own. This last point is important to our argument. If an interest group can attain a benefit or favorable policy decision from government on its own, with little or no help from other interest groups or legislators, it may lobby even in the absence of government activity. This can sometimes occur in the case of an interest group asking a legislator to insert a non-controversial sentence or two into an existing bill. The clause may go unnoticed and undebated in the larger bill but will provide great benefits to the interest group.² For most issues on which interest groups lobby, however, the interest groups themselves cannot change things single-handedly.

It is important to distinguish here between the role of governmental patronage and the role of governmental attention. Our focus in this article is not on the role of direct government support of interest groups, but rather on the way in which government involvement in a policy area helps spark the mobilization of organized interests. Without denying the importance of direct patronage, the indirect effect of government attention is constant rather than occasional, and thus is likely to have a greater overall effect. In addition, it should be clear that government activity mobilizes groups who *oppose* these developments just as it mobilizes supporters and beneficiaries of the activity. There is no ideological or pro-government bias to the process we describe. For example, businesses affected by increasingly tight regulatory environments may reluctantly, rather than enthusiastically, establish a long-term Washington presence. The process we describe is general. Groups cannot ignore government even if they want to.

ANALYZING THE DECISION TO COME TO WASHINGTON

The demand theory of interest-group lobbying that we propose here leads to a simple hypothesis: As government attention to an issue-area increases, so too will lobbying in that issue-area. However, government attention can be conceptualized and measured in multiple ways; not every type of attention should be expected to have the same effect on levels of lobbying. In this article we consider both the demand effects of general government attention to an issue-area in the short and long term, and the subsidy-seeking effects of an issue-area that involves proportionally large amounts of the federal budget. In addition, we include as a control measure the supply effects of the number of business firms in an area of the economy.

We conduct this analysis using two large data sets that previously have not been used in tandem: (1) the Lobbying Disclosure Data Set (Baumgartner and Leech 2001), and (2) the Policy Agendas Project (Baumgartner and Jones 1993, 2002).³ The first data set allows us to identify the number

of organizations active in Washington in 74 government-designated issue-areas, the number of issues lobbied on, and the amount spent on lobbying. We can also trace, over eight successive six-month reporting periods, fluctuations in the number of organizations filing lobbying reports in each of the 74 areas, enabling us to examine the time-ordered nature of the data. The second data set, which contains numerous indicators of government attention to more than 200 distinct policy areas since World War II, allows us to assess the degree of government activity in each issue-area over time, as well as the amount of government spending in each area. To these sources, we add data from the U.S. Economic Census on the number of existing firms in each of these issue-areas. Our pooled time-series analysis is thus based on lobby disclosure reports and congressional hearings data from 1996 to 2000, covering an average of almost 6,000 registration reports in each of eight time-periods across dozens of different issue-areas. We will discuss each of these variables in turn, and explain how each of these variables has been operationalized.

First, we consider general government attention to an issue-area, in particular congressional attention to an issue-area.⁴ We expect lobbying to increase as the amount of congressional attention increases; however, we expect the effects to be different in the short and long term. An organization's decision to lobby is time consuming and expensive, especially if it involves setting up an office in Washington (or Brussels, or a state capital, for that matter) or adding permanent staff to that office. In addition, organizations are not unitary actors—there may be multiple constituencies within the organization to convince, and organizational actors may not immediately recognize that their interests have been threatened, or that an opportunity has arisen because of government action (see Martin 1995). For these reasons we expect long-term changes in government activity to be more important in affecting lobbying activity than short-term changes in attention. It is, however, easier for interest groups to hire contract lobbyists and public relations firms than to create their own Washington offices, and therefore we expect the level of lobbying by contract lobbyists to be more sensitive to short-term changes in government attention. The lobby disclosure reports allow us to measure direct lobbying by organizations separately from lobbying by contract lobbyists on behalf of paying clients.

To measure short- and long-term government attention, we have two variables: The short-term variable consists of the number of congressional hearings that took place regarding that issue-area during the same six-month period for which lobbying is reported in the disclosure reports. The long-term variable reflects a 10-year moving average, lagged one year, of past congressional hearings in that issue-area.

² For the purposes of our argument, this benefit may be either private or collective. The crucial thing is that it be attainable by the interest group working single-handedly.

³ These two data sets are publicly available online at <http://lobby.la.psu.edu/~related> and www.policyagendas.org/.

⁴ We expect that any type of government involvement—congressional or bureaucratic, national or local—should lead to increased lobbying activity. Our measure of lobbying activity, however, is primarily concerned with congressional lobbying. We focus here, therefore, on the agenda-setting role of congressional attention to issue-areas.

Second, we expect that issue-areas representing relatively greater proportions of the federal budget will also experience higher levels of lobbying, as interest groups vie to attract direct subsidies and contracts from the federal government. This variable is measured by the amount of the federal budget, in billions of dollars, attributable to each issue-area during the contemporaneous year.

Third, it is possible, of course, that the number of active interest organizations in a given issue-area is not the result of government attention or spending at all, but is simply a reflection of how important that issue-area is to the economy. If the supply of potential interest organizations is greater in one issue-area than another, then that would provide a potential rival hypothesis for the variation we see across issue-areas. Therefore we use economic census data measuring the numbers of firms active in the United States in different economic sectors as an indicator of the potential supply of interest organizations in an issue-area. While this measure does not include the number of non-economic organizations potentially available to lobby, it does provide an indicator of the level of economic activity. These data allow us to test whether it is the supply effect of the number of firms that determines the mobilization, rather than the demand effect of the level of government activity.

Measures of Lobbying Activity

The Lobbying Disclosure Act of 1995 requires organizations or individuals spending more than about \$20,000⁵ on lobbying activities within any six-month period to file a report indicating the areas in which they lobbied, the issues on which they were active, and the amount of money spent. There are 74 pre-defined areas of lobbying activity, and lobbyists must file reports in each area in which they are active. Baumgartner and Leech (2001) report detailed information from an exhaustive analysis of every report filed for the December 31, 1996, filing period. In this work we make use of those publicly available data as well as summary data collected from the Senate Office of Public Records consisting of the number of filings in each of the 74 issue-areas in seven subsequent time periods: December 31, 1997, and in each six-month filing period through December 31, 2000. The reports indicate the number of organizations filing in each issue-area as well as the number of hired lobbying firms working on behalf of paying clients.

What do these counts of lobbying reports represent? We can use our more detailed analysis of all 19,692 reports filed in 1996 to address this question. This initial analysis reassures us that simple counts of the number of reports are valid and useful measures of the amount of lobbying activity

in these 74 issue-areas. The 1996 database allows us to count the number of interest groups, lobbying firms, registrations, issues mentioned, and money spent by each registered organization and each contract lobbyist, and to break these numbers down by issue-area. Comparison of these various indicators of levels of lobbying activity shows the striking similarities of estimates of activity levels when aggregated to the issue-areas that we analyze in this study. For example, the total number of lobbying reports is nearly perfectly correlated with the number of groups registering in an area (reports = 1.4 * groups; $R^2 = .99$). Similarly, the total number of issues mentioned by all groups equals 3.5 times the number of groups registered ($R^2 = .98$). Finally, the total amount spent by groups is also highly correlated with the number of registrants ($r > .94$). In short, an analysis of several different indicators of levels of lobbying activity, drawn from a detailed analysis of the full set of reports filed in a single reporting period lends credence to the idea that the simple count of lobbying reports over the eight time periods is a robust and reliable measure of total lobbying activity.

Linking Lobbying Activity Levels to Other Indicators

Our data on government attention to various issue-areas come from the Policy Agendas Project (see Baumgartner and Jones 1993, 2002), which contains information on all congressional hearings as well as on congressional budget authority. Since the Agendas Project codes each congressional hearing since 1947 into one of 226 detailed subtopics, we were able to match the majority of the 74 lobbying areas defined by the federal government in the Lobbying Disclosure Act to some combination of these subtopics. In the end, about 85 percent of lobbying occurs in areas where we can link to the data collected as part of the Policy Agendas Project.⁶ In some cases it fits neatly and easily with a single major topic (for example, the lobbying issue-area Agriculture fits with the Policy Agendas project Topic 4, also called Agriculture). In other cases more detailed codes provided single fits (the lobbying issue-area District of Columbia, fits with Policy Agendas subtopic 2014, District of Columbia affairs, which is part of the Policy Agendas major topic 20, governmental affairs). In still other cases, such as Clean Air and Water Quality, a combination of two or more Policy Agendas subtopics corresponds to this issue-area. In this way, we can establish links between 56 of the 74 areas.

The Policy Agendas Project also provides information on government spending, taking the annual budget of the United States and creating a consistently defined and inflation-adjusted time series for each OMB-defined category of spending. Using the same conservative approach as we used with the congressional hearings, but being limited by the

⁵ Section 4(a)(3) of the Lobbying Disclosure Act of 1995 set the initial threshold for registration at \$20,000 spent by an organization lobbying on its own behalf or \$5,000 paid by an organization to a lobbying firm. These amounts, however, were pegged to the Consumer Price Index, and the threshold amounts in 2001 were \$22,500 and \$5,500.

⁶ Tables showing the linkages between the various data sets we use in this study are available on our website, at <http://lobby.la.psu.edu/~related>.

smaller number of OMB categories in the budget dataset, we can establish links in 27 out of 74 areas, or about 36 percent of the categories. These categories in turn account for almost exactly one half of the lobbying activity. While not perfect, these data will allow us to analyze the degree to which lobbyists are drawn to Washington because of the level of government spending in an area.

Finally, we have information on the number of firms active in different parts of the economy. We use economic census data measuring the number of firms active in the United States as an indicator of this concept in each of our lobbying issue-areas. While this measure does not attempt to include the number of non-economic organizations potentially available to lobby, it does provide an indicator of the level of economic activity, which allows us to test whether it is the supply effect of the number of firms that determines the mobilization, rather than the demand effect of the level of government activity. Using data from the U.S. Census Bureau and in particular its classification of all areas of economic activity, we count the number of firms in each issue-area that can be linked to the lobby disclosure data; we are successful in establishing these links in 48 areas, representing 62 percent of the lobbying activity. Because of changes in the way the Census Bureau counts these firms, these data are available for only two of our five years.

Lobbying Across Issue-areas

Before moving on to the analysis of these variables, it is helpful to take a look at the actual amounts of lobbying activity we see in these issue-areas. Table 1 shows the mean number of lobbying reports filed by interest groups during the eight time periods for each of the 74 issue-areas. We present the issue-areas in alphabetical order, with all those areas where a corresponding set of congressional data are available listed first. The later part of the table lists those areas where we have lobby disclosure data but where there are no corresponding topic codes from the Agendas Project.

Most areas of public policy are home to quite stable patterns of interest-group involvement, with relatively little time-series variation in the period we study. Take the example of banking, a minimum of 107 and a maximum of 135 groups filed lobbying reports in that area during the eight reporting periods; in the case of Medical and Disease Research, between 62 and 83 groups filed lobbying reports in each period. However, if one looks down the columns of Table 1, one can see that there is great and consistent cross-sectional variation in the data: Some areas were home to much greater activity than others. For example, Taxation issues show an average of 563 groups whereas Unemployment has an average of just eight lobbying reports. Comparing the means and standard deviations from the table confirms the cross-sectional dominance of the variation. On average, for the 74 issue-areas combined, the mean number of lobbying reports is 16 times greater than the standard deviation over the eight reporting periods. That is, very few

issue-areas show large changes in the number of lobbying reports over time compared to their average, but there is great variation across the issue-areas.

Table 2 is similar to Table 1 but reports data on hired lobbyists (public relations firms, law firms, and others lobbying on behalf of paying clients). These data show very similar patterns to those in Table 1 except that there is greater variability over time in the number of lobbying reports. Since these data represent the decision of a given client (e.g., General Motors) to hire a given public relations firm, some of these may be long-term relationships, but others may be ad-hoc decisions based on a single or a small number of lobbying campaigns for a limited period of time. In any case, we observe, as in Table 1, much greater variation across issue-areas than across time—Taxation and Budgeting have sometimes more than 1,000 lobbying reports, whereas areas such as District of Columbia Affairs, Unemployment, and a few others typically attract fewer than 10 reports. While the average number of lobbying reports remains greater than its standard deviation, this ratio is only 5:1 here while it was 16:1 in Table 1. Thus, there is greater variation in the level of lobbying by contract lobbyists.

Of course, we expect the relationships between government attention and lobbying to be stronger in some areas than others. Some areas will have a large amount of group activity but little legislative action as measured by hearings. These are such areas as Taxation, where major decisions are made and massive numbers of lobbyists are active, but where few hearings are scheduled. Other areas may be home to considerable legislative activities but not much lobbying. This includes Government Issues, which in turn includes ethics investigations, oversight, nominations, claims against the U.S. government, and other routine topics that require legislative activity and generate hundreds of congressional hearings each year but are not home to the equivalent level of lobbying intensity.⁷

Lobbying in Time and Space

When it comes to data collection, interest-group scholars have historically been on their own. With the exception of data on campaign contributions, there have been no pre-existing sources of data that allow analysis across time. Our data set therefore offers an unprecedented opportunity to examine the relationship between U.S. government activity and interest-group mobilization across issue-areas and over

⁷ Four of our issue-areas can be expected to systematically undercount lobbying activity, since many of the organizations expected to lobby in those categories are governmental entities like governor's offices and Indian tribes, which are not required to register (although if they hire a contract lobbyist, that lobbying firm often will register them regardless). Those four issue-areas are District of Columbia (DOC), Government Issues (GOV), Indian/Native American Affairs (IND), and Urban Development/Municipalities (URB). We have run all of our analyses both with and without these four areas. In all cases our basic conclusions remain unchanged, regardless of which version of the data are used. Here we present the more inclusive version of the data.

≡ TABLE 1
AVERAGE NUMBER OF INTEREST GROUPS PER ISSUE AREA, 1996-2000

Policy Area	Avg.	St. dev.	Policy Area	Avg.	St. dev.
Part A: Issue Areas With Links to the Policy Agendas Hearings Data Set					
Aerospace	26.5	5.4	Immigration	131.6	36.9
Agriculture	143.0	15.7	Indian affairs	18.4	2.3
Alcohol/drug abuse	23.4	3.7	Insurance	106.5	16.2
Aviation	67.5	6.9	Labor	289.5	42.8
Banking	123.4	9.8	Law/criminal justice	82.6	11.1
Bankruptcy	82.6	31.7	Medical research	73.9	6.0
Civil rights	56.0	4.8	Medicare/Medicaid	215.6	23.5
Clean air/water	161.1	20.4	Minting/money	4.8	1.7
Commodities	8.0	1.5	Natural resources	99.8	9.8
Comm./broadcasting	65.8	7.8	Pharmacy	40.6	8.3
Computer industry	60.8	14.5	Postal	34.5	5.6
Consumer issues	98.9	8.4	Railroads	46.6	11.1
Copyright/patent	141.8	13.1	Retirement	78.8	17.9
Defense	167.8	13.9	Roads/highways	31.0	6.8
District of Columbia	7.4	1.7	Science/technology	110.6	9.9
Disaster planning	27.1	5.8	Small business	55.0	9.8
Education	173.1	15.2	Taxation	562.5	36.0
Engineering	166.1	20.2	Telecommunication	138.8	19.0
Environ./Superfund	318.3	27.6	Tobacco	46.6	21.2
Family	42.6	3.3	Trade	354.4	24.5
Finance/securities	127.1	7.1	Transportation	203.0	21.6
Food	69.5	9.9	Travel/tourism	8.8	2.3
Foreign relations	96.5	2.9	Trucking/shipping	32.4	5.6
Fuel/gas/oil	51.4	7.3	Urban development	9.0	1.7
Gambling	11.5	4.8	Unemployment	7.6	2.1
Government issues	181.8	21.3	Veterans	37.1	4.0
Health issues	427.5	47.0	Waste	77.6	25.5
Housing	64.5	2.8	Welfare	45.8	20.8
Avg. biannual subtotal (N): 5,934; st. dev.: 359.7					
Part B: Issue Areas Without Links to the Policy Agendas Hearings Data Set					
Advertising	30.8	13.2	Economic develop.	126.6	56.9
Animals	24.0	5.4	Firearms/guns	21.5	3.4
Apparel/textiles	22.4	5.8	Manufacturing	55.6	14.5
Arts/entertainment	52.9	6.9	Marine/boats/fish	163.8	24.1
Automotive industry	36.9	7.2	Media/publishing	14.8	5.3
Beverage industry	29.3	9.4	Real estate/land use	101.3	36.0
Budget/approp.	1,154.4	258.7	Religion	2.9	2.0
Chemical industry	29.8	3.5	Sports	21.9	4.7
Constitution	11.4	8.6	Utilities	164.4	37.9
Avg. biannual subtotal (N): 990.8; st. dev. 65.3					

time. By the same token, it also poses several challenges. Time series cross-sectional models face not only the traditional time series problem of serial autocorrelation—in which the errors at one point in time are likely to be related to errors at another point in time—but also the problem of spatial correlation and error heteroskedasticity—errors from one unit at one point in time are likely to be related to the same unit at another point in time, and the errors of the dif-

ferent units may have unequal variances (see Stimson 1985). To address these issues we adopt the approach recommended by Beck and Katz (1995, 1996): OLS with panel-corrected standard errors, used with a lagged dependent variable. As we noted earlier, however, variation across time in our data is clearly swamped by the degree of variation across issues. In fact, because of this stationarity, our measures of long-term hearings and short-term hearings are

≡ TABLE 2
AVERAGE NUMBER OF CONTRACT LOBBYISTS PER ISSUE AREA, 1996-2000

Policy Area	Avg.	St. dev.	Policy Area	Avg.	St. dev.
Part A: Issue Areas With Links to the Policy Agendas Hearings Data Set					
Aerospace	69.1	40.0	Immigration	91.8	21.4
Agriculture	273.5	57.4	Indian affairs	174.3	27.4
Alcohol/drug abuse	37.8	9.0	Insurance	103.8	13.1
Aviation	215.1	70.5	Labor	203.3	49.9
Banking	239.4	28.5	Law/criminal justice	138.3	41.0
Bankruptcy	78.3	37.0	Medical research	129.5	16.6
Civil rights	21.5	6.6	Medicare/Medicaid	386.8	99.9
Clean air/water	193.5	36.2	Minting/money	21.5	18.2
Commodities	7.4	2.4	Natural resources	273.9	75.9
Comm./broadcasting	143.3	42.5	Pharmacy	72.8	18.8
Computer industry	112.9	57.0	Postal	50.9	13.4
Consumer issues	111.8	19.8	Railroads	80.4	29.1
Copyright/patent	186.9	29.8	Retirement	56.8	22.1
Defense	723.6	164.0	Roads/highways	71.1	14.7
District of Columbia	8.6	3.4	Science/technology	141.6	39.9
Disaster planning	52.6	9.5	Small business	58.9	21.4
Education	300.5	71.9	Taxation	998.8	113.1
Engineering	362.9	98.2	Telecommunication	371.0	92.6
Environ./Superfund	629.3	123.7	Tobacco	104.1	48.6
Family	11.3	2.0	Trade	525.8	117.2
Finance/securities	187.1	46.4	Transportation	583.3	106.4
Food	104.9	29.9	Travel/tourism	32.9	5.7
Foreign relations	117.5	27.7	Trucking/shipping	26.5	3.5
Fuel/gas/oil	93.3	39.9	Urban development	91.1	37.5
Gambling	70.8	25.6	Unemployment	2.4	2.7
Government issues	236.5	34.6	Veterans	24.5	6.6
Health issues	709.6	150.6	Waste	111.6	23.4
Housing	158.8	37.8	Welfare	54.9	22.9
Avg. biannual subtotal (N): 10,439.4; st. dev.: 2,048.8					
Part B: Issue Areas Without Links to the Policy Agendas Hearings Data Set					
Advertising	30.8	13.2	Economic develop.	126.6	56.9
Animals	24.0	5.4	Firearms/guns	21.5	3.4
Apparel/textiles	22.4	5.8	Manufacturing	55.6	14.5
Arts/entertainment	52.9	6.9	Marine/boats/fish	163.8	24.1
Automotive industry	36.9	7.2	Media/publishing	14.8	5.3
Beverage industry	29.3	9.4	Real estate/land use	101.3	36.0
Budget/approp.	1,154.4	258.7	Religion	2.9	2.0
Chemical industry	29.8	3.5	Sports	21.9	4.7
Constitution	11.4	8.6	Utilities	164.4	37.9
Avg. biannual subtotal (N): 2,064.3; st. dev.: 428.9					

highly collinear (Pearson's $r = .91$) and cannot be used together in the same analysis.⁸

⁸ Likewise, since the number of hearings in an area is dependent in part on the number of committees available to hold such hearings, it is not feasible to separately consider the role of venue dispersal in this analysis. Our measures of attention (number of hearings) and dispersal (number of committees) are highly correlated (Pearson's $r = .91$).

Our first set of models (in Tables 3a and 3b) shows the relationship between the short-term effects of government attention—as measured by the number of congressional hearings held in an issue-area in the current year—and the number of Lobbying Disclosure Reports filed by organizations on their own behalf (Table 3a) and by contract lobbyists (3b). Looking first at Model 1, the coefficients indicate that for every additional hearing in a year, we see about

≡ TABLE 3
THE EFFECT OF SHORT-TERM GOVERNMENT ATTENTION ON LOBBYING ACTIVITIES

	Model 1	Model 2	Model 3	Model 4
Part A: Lobbying by Organizations				
Short-term Hearings	1.67** (0.43)	1.65** (0.48)	2.63* (1.07)	0.25† (0.15)
Federal spending (billions of \$)		0.004 (0.01)	-0.02 (0.02)	0.02** (0.005)
Firms			3.32e ⁻⁰⁴ ** (5.03e ⁻⁰⁵)	3.33e ⁻⁰⁵ (2.84e ⁻⁰⁵)
Organizations, t-1				0.98** (0.05)
Intercept	83.41** (5.1)	98.95** (8.58)	49.19** (14.57)	-1.7 (1.16)
	R ² = 0.07 N = 56, T = 4 Total obs:224	R ² = 0.07 N = 26, T = 4 Total obs: 104	R ² = 0.42 N = 21, T = 2 Total obs:42	R ² = 0.98 N = 21, T = 2 Total obs: 42
Part B: Lobbying by Contract Lobbyists				
Short-term Hearings	2.9** (0.59)	3.25** (0.66)	6.8** (2.07)	1.96* (0.8)
Federal spending (billions of \$)		0.21** (0.02)	0.11* (0.05)	0.03* (0.01)
Firms			4.15e ⁻⁰⁴ ** (8.66e ⁻⁰⁵)	-2.54e ⁻⁰⁵ (2.4e ⁻⁰⁵)
Lobbyists, t-1				0.92** (0.06)
Intercept	132.34** (6.38)	147.67** (11.0)	57.34* (25.55)	-15.15** (5.72)
	R ² = 0.07 N = 56, T = 4 Total obs: 224	R ² = 0.10 N = 26, T = 4 Total obs:104	R ² = 0.43 N = 21, T = 2 Total obs:42	R ² = 0.98 N = 21, T = 2 Total obs: 42

Notes: Coefficients computed using OLS with panel-corrected standard errors (PCSEs). PCSEs appear in parentheses. ** p ≤ .01, *p ≤ .05, †p ≤ .10, two-tailed tests.

one and a half additional lobbying reports filed by organizations and three additional reports by contract lobbyists. Since the number of hearings in an issue-area in a given year range from 0 to 119 during the years we consider, with a mean of 12, the potential effect of this relationship is far from negligible. Going from the mean to the maximum would bring more than 150 additional lobbying reports by organizations and more than 300 additional reports by contract lobbyists.

Moving to Model 2, the coefficients for the short-term hearings stay the same (in the case of organizations) or become slightly larger (in the case of contract lobbyists) once the amount of federal spending in each issue-area is considered. Budget size (measured in billions of dollars) does not have a statistically significant impact on the amount of lobbying by organizations, but does have an impact on contract lobbying. Even in the case of contract lobbying, where

government spending is statistically significant, the effect is less than that of government attention as measured by congressional hearings. For each \$10 billion the government spends in an issue-area, we would expect to see about two additional reports by contract lobbyists. The maximum spending in any issue-area was nearly \$500 billion, so switching from the mean federal spending in an issue-area (\$54 billion) to the maximum federal spending would result in an increase of approximately 90 contract lobbyists.

There are several reasons why the relationship between government spending and lobbying activity is more modest than the relationship between the number of hearings and lobbying. First, lobbying is not only about gaining government procurement contracts or encouraging greater spending (though it often is, to be sure). Areas with extremely high government spending include retirement issues (Social Security); while there is certainly a lot of lobbying activity in

this area, it is not proportionate to the level of spending. Similarly at the other end of the spectrum, trade issues can generate considerable lobbying, but government spending on trade is not an important factor. Certainly there are areas such as medical research, defense, and agriculture, where we see both a large number of lobbyists and considerable federal spending. However, a complete model of what brings groups to Washington would certainly have to consider not only direct government spending but also and probably especially government involvement in and regulation of the private economy. This is why hearings, our measure of government attention, seem better suited to explain this process.

In Model 3, the effect of additional short-term hearings is again increased when our variable measuring the number of firms active in that issue-area is added to the equation. The coefficient for federal spending is not significant for either organizational lobbying or contract lobbying, and the sign changes in the case of organizational lobbying. The number of firms present in that area of the national economy does, however, have a statistically significant effect in this model. For every additional 10,000 firms in the country, there are three additional lobbying reports filed by organizations and four additional reports by contract lobbyists. Going from the mean number of firms, 103,960, to the maximum number of firms, 553,915, would mean an increase of 135 lobbying reports by organizations and 180 by contract lobbyists. At least in this model, the number of firms in existence in the economy has a substantial impact on the amount of lobbying.⁹

The complete government attention model in Tables 3a and 3b is Model 4. Here we add a lagged dependent variable to control for serial autocorrelation. In all of our data, the number of lobbyists and organizations active at one point in time is a strong predictor of the number of lobbyists and organizations active in the next point in time. This has the effect of diminishing the observed effect of the other independent variables and of driving the R^2 statistics into the .90+ range. After the lagged dependent variable is included, there is relatively little variance left to explain. Since the process we are explaining is highly inertial, however, it is appropriate to control for past behavior (in this case, lobbying reports); in effect, we then model the degree to which change in each independent variable affects change in the dependent variable. The results show that our measures of government attention are consistently robust (though they

change substantially in magnitude), but the firms variable does not remain statistically significant. Our final model, controlling for previous levels of lobbying activity, shows that short-term hearings have a significant effect as predicted, federal spending has small positive effect, and that the number of firms has no significant effect and in fact switches signs in the case of the contact lobbyists.

The next set of models, shown in Tables 4a and 4b, tests the relationship between the long-term effects of government attention—as measured by the number of congressional hearings held in the previous ten-year-period—and the number of lobbying reports filed by organizations and contract lobbyists. Model 1 here shows a similar relationship to what we saw in Table 3. For every 10 hearings (the equivalent of one per year), we see 1.2 additional reports for organizations and 2.2 additional reports for contract lobbyists.¹⁰

Model 2 adds in the variables for the amount of federal spending in an issue-area (in billions of dollars). When considering organizational lobbying, the coefficient for federal spending is negative, contrary to expectations, although the result is not significant. When we consider contract lobbying, however, the impact of federal spending is positive and statistically significant throughout, with every \$10 billion in additional governmental spending expected to result in two additional reports filed by contract lobbyists. Model 3 adds the variable measuring the number of firms in existence nationally in that issue-area. The coefficient is positive, as expected.

When we add the lagged dependent variable (Model 4), our results are much the same as in the contemporaneous model from Table 3. Our measures of government attention are consistently robust, but diminished in magnitude. Our final model, controlling for previous levels of lobbying activity, shows that long-term hearings have a significant effect as predicted, federal spending has a positive effect for both organizational and contract lobbyists, and the number of firms has no significant effect.

The analyses presented in Tables 3 and 4 show that the amount of government activity, as measured by hearings in Congress and size of budget, has a significant impact on interest-group mobilization, both in the short- and long-term, with the impact of congressional attention as measured by hearings having the greater and more consistent effect. The number of firms in an issue-area has less of an impact and in our final model is statistically insignificant.

In sum, we find that areas of greatest growth have been those where government has become most active, though not necessarily those where government spends the most money. Our pooled time-series analysis shows that government activity affects the number of groups in an issue-area, even controlling for the previously existing number of groups and other factors. The effect of government activity on group mobilization is more consistently important than

⁹ Grier, Munger, and Roberts (1994) lead us to expect that collective action problems will cause declining increases in the amount of lobbying as the number of firms increases. We therefore also have tested our model using the log of the number of firms, as well as firms squared. Although the coefficients for the firms variable of course differ, the coefficients for the other variables remain much the same and our overall conclusions hold—hearings matter in the final model, but the number of firms does not. The number of firms is relatively stable over time, however, and it may be that this brief period is not enough to assess what would happen over the long term were the numbers of firms to shift substantially. This may be a fruitful trajectory for future research.

¹⁰ We also tried models that called for 2-, 5-, and 20-year moving averages. All showed similar patterns, but the 10-year average provided the best fit.

≡ TABLE 4
THE EFFECT OF LONG-TERM GOVERNMENT ATTENTION ON LOBBYING ACTIVITIES

	Model 1	Model 2	Model 3	Model 4
Part A: Lobbying by Organizations				
Long-term Hearings	0.12** (0.004)	0.17** (0.006)	0.16** (0.007)	0.009* (0.004)
Federal spending (billions of \$)		-0.02+ (0.01)	-0.02+ (0.01)	0.02** (0.003)
Firms			2.11e ⁻⁰⁴ ** (8.63e ⁻⁰⁶)	1.85e ⁻⁰⁵ (1.77e ⁻⁰⁵)
Organizations, t-1				0.98** (0.03)
Intercept	63.08** (2.76)	40.29** (1.61)	21.5** (1.23)	-0.67 (0.67)
	R ² = 0.21 N = 56, T = 7 Total obs:392	R ² = 0.38 N = 26, T = 7 Total obs:182	R ² = 0.63 N = 21, T = 4 Total obs: 84	R ² = 0.93 N = 21, T = 4 Total obs: 84
Part B: Lobbying by Contract Lobbyists				
Long-term Hearings	0.22** (0.02)	0.34** (0.03)	0.4** (0.02)	0.025† (0.015)
Federal spending (billions of \$)		0.19** (0.03)	0.12** (0.02)	0.03** (0.01)
Firms			1.99 ⁻⁰⁴ ** (3.76e ⁻⁰⁵)	-7.52e ⁻⁰⁶ (2.53e ⁻⁰⁵)
Lobbyists, t-1				0.99** (0.06)
Intercept	105.86** (8.29)	51.29** (7.17)	5.48* (2.52)	-2.37* (1.13)
	R ² = 0.20 N = 56, T = 7 Total obs: 392	R ² = 0.39 N = 26, T = 7 Total obs: 182	R ² = 0.66 N = 21, T = 4 Total obs:84	R ² = 0.98 N = 21, T = 4 Total obs: 84

Notes: Coefficients computed using OLS with panel-corrected standard errors (PCSEs). PCSEs appear in parentheses. *p ≤ .05, ** p ≤ .01, two-tailed test; †p ≤ .05, one-tailed test.

two rival measures: direct government spending and the number of firms in a given area of the economy. These two indicators can also have an impact on the number of interest groups, but their impact is lower and statistically inconsistent whereas our broad measure of government activity has a consistent, significant effect on the number of groups.

AGENDAS AND ADVOCACY

Government activity acts as a magnet, pulling groups of all kinds to become active. More so than direct federal spending or the number of business firms in various areas of the economy, government attention, as measured by congressional hearings, draws groups to Washington. The growth of the group system has affected government, to be sure. However, in this article we have shown statistically

that the growth and spread of areas of government activity has had important effects on the nature of the group system, even controlling for the size and structure of the group system in the previous time period. As government has grown, becoming more active in various areas of the economy and in social life, groups of all kinds have found that they must be present in Washington.

Establishing a Washington presence is not an automatic outgrowth of the development of a business, a trade group, or a non-profit group. There is no reason to do it if government activities are not an important concern for the organization. Many businesses, such as Microsoft, have eschewed government relations for as long as possible, clearly not wanting to be involved as long as they could avoid it. Over the long-haul, and across the entire political system, we find that this is not a viable strategy in general, however; nor was

it one for Microsoft in the end. As government has become more active in a greater range of issue-areas in the last fifty years, a greater range of groups have found it important to be present, permanently represented, in Washington. While our article has focused on a relatively short period of time, our findings also suggest an explanation for some longer term trends. There is no mere coincidence in the fact that the “interest-group explosion” that many authors have noted occurred after the 1960s. Not only were there important social movements, entrepreneurs, and a growing economy; there were also important changes in the structure of government. The federal budget grew larger, of course, over the decades from World War II to the present. However, the mere size of government is not the most important driving force in fostering the growth of groups. Rather than spending, it is the dramatic increase in the range of government activities that has been most important in causing the group explosion. Where government is active, groups find that they are drawn, like it or not, to monitor, influence, or oppose these actions.

Baumgartner and Jones’ analysis of the federal agenda shows not just a growth in government, as many have shown, but a dramatic increase in the numbers of distinct policy areas in which the federal government is involved (see Baumgartner and Jones 2002; Baumgartner, Jones, and MacLeod 2000). As the government becomes more involved in new areas where it previously had not been an important player, new interests are created. Recall Heinz and colleagues’ definition of an interest from the introduction to this article: A concern or a desire only becomes an interest when it intersects with the actions of government. As public policies have become important in a greater range of areas, interests have become more numerous. As interests have grown, so too has the interest-group system.

To say that government activity affects the population of organized interests is not to suggest that the internal characteristics of interest groups are irrelevant - far from it. Resources and selective incentives matter. Not all potential groups are even close to equal in their capacity to mobilize. Interest communities with money and other resources are more likely to organize than those without. Businesses and trade associations organize much more easily and in greater numbers than non-occupational groups do. Selective incentives tend to trump purposive goals as a mobilization tool. These processes have long been understood and remain important to any understanding of who mobilizes.

Alongside these tendencies that stem from internal characteristics, however, other forces are at work. The political environment in which organizations and potential organizations find themselves is a powerful determinant of who will lobby and how much they will lobby. All things being equal, an organization with many resources will mobilize and lobby more easily and often than an organization with few resources. Considering the important role of government, however, it is clear that *all things are not equal*. Government subsidizes, regulates, and differentially promotes and penalizes various types of interest groups. More broadly than that,

it affects the size and shape of the group system by its own activities. Our analysis shows that increased government activity in a given issue-area itself is a driving force in the subsequent mobilization of interest groups. Groups do not automatically form and come to Washington; there must be a demand for them. Government creates that demand.

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