Are PAC Contributions and Lobbying Linked?
New Evidence from the 1995 Lobby Disclosure Act[*]

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August, 2000

1. Introduction

House and Senate candidates raise approximately $200 million in campaign contributions from political action committees each election cycle. The lion's share of this money goes to those already in office, suggesting that groups contribute in order to influence Congressional decision making. Scholars disagree, however, about the extent to which group contributions actually do affect public policy, and the route through which contributions have their effect.

The dominant view holds that campaign contributions are integral to groups' lobbying efforts, and even "buy" access.[1] Numerous case studies and interviews with political insiders indicate that campaign contributors seek to gain time with legislators to discuss and perhaps craft legislation.[2] Surveys of legislators and their staff suggest that legislators often use campaign contributions to ration the time they spend with lobbyists (Langbein, 1986).

Despite substantial case study and survey work linking organizations' campaign contributions to their lobbying activities, this interpretation of campaign finance in the United States has two serious empirical flaws. First, the association between lobbying and contributing appears surprisingly weak. Many groups that have a PAC do not have a lobbyist and the majority of groups that have a lobbyist do not have a PAC. Gais, for example, estimates that only 17% of groups that have representation in Washington DC, also have a PAC.[3] Second, campaign donations from all sorts of groups are highly responsive to electoral competition and candidates' ideologies. Poole and Romer (1985), Wright (1985), Poole *et al.* (1987) and others find that ideology and electoral competition are very important in determining the pattern of PAC contributions across members of the U.S. House, while such factors as seniority and committee positions are less important. Wright (1985) concludes from this pattern that group contributions seek to change who is in office, rather than to attract the attention of representatives once they are elected (see also, Grenzke, 1989). Under this view, lobbying and contributing are largely unrelated activities.[4]

Using newly available data, we find a much stronger connection between lobbying and campaign contributions than previous statistical research has revealed. First, we show that there is

a strong association between campaign contributions and lobbying expenditures. Previous research has relied on counts of groups that have a lobbyist, a PAC, or both. Although groups that have both a lobbyist and a PAC account for only one-fifth of all groups in our sample, these groups account for fully 70% of all interest group expenditures and 86% of all PAC contributions. Groups that do not have PACs also tend to spend little on lobbying, or are legally prohibited from contributing.

Second, we show that groups' campaign contribution strategies depend on how much they emphasize lobbying. Owing to limitations of what can be observed or measured, we take a positivist approach, testing the predictions of formal theory models of lobbying and campaign contributing.[5] The main prediction of such work is that the more a group emphasizes lobbying, the more it will give to those in positions of power, such as committee chairs, party leaders and pivotal legislators. This pattern holds very strongly in the data. Theoretical work also suggests that donors will give more to incumbents the closer the race, though the more a donor values access the less they will respond to electoral competition. This pattern also appears in the data. Lastly, we find that groups that do relatively little lobbying appear to be highly ideological and partisan in their giving, while those that emphasize lobbying strongly give more equally to both parties and more broadly across the ideological spectrum.

Section 2 summarizes the main hypotheses we test, drawing on the existing theoretical literature. Section 3 describes the main aggregate relationships between lobbying and contributing. Section 4 presents more detailed analyses designed to test the hypotheses described in section 2. Section 5 offers a discussion of the implications of our analysis.

2. Theory

The existing political economy literature on interest groups provides a framework for generating specific hypotheses about such access-oriented campaign contributions. Welch (1974, 1980) presents two models, one for "ideological" contributors and one for "quid pro quo" contributors. Denzau and Munger (1986), Baron (1989), Snyder (1990), and Grier and Munger (1991) present

models of contributors seeking "effort", "services", or "favors." Candidates in these models value contributions because the money can be used to increase their probability of victory (or expected vote). The costs of attracting contributions are of two general sorts: the loss of votes from shifting policies in ways that favors interest groups but alienate a majority of voters; and the disutility associated with the effort required to perform services for groups, rather than engaging in more pleasurable legislative activities.

Ignoring the complicated issue of what transpires in the meetings between legislators and interest group lobbyists who obtain access, we can substitute the word "access" for "effort" or "service" in the models noted above, and extract several predictions. For simplicity, suppose we can divide the set of groups into two sets—access-oriented groups (analogous to Welch's quid-pro-quo contributors) and ideological groups.

This strain of formal theory generates the following predictions:

(i) Incumbents facing strong opponents will raise more money from ideological groups than incumbents facing weak opponents, because of the motives of such groups. Ideological groups contribute mainly to elect or re-elect candidates sympathetic to their cause, and therefore tend to focus their efforts on competitive races where their money is more likely to affect the outcome.

(ii) Incumbents facing strong opponents will also raise more money from *access-oriented* groups than incumbents facing weak opponents. This is because of the motives of the *incumbents*. Incumbents facing competitive elections feel a greater need for campaign funds, and are therefore willing to do more to raise money—including selling more access. Some scholars have argued that finding that there should be little or no correlation between access-oriented contributions and electoral competitions (see, *e.g.*, Wright, 1985, p. 407). This does *not* follow from theory. Straightforward and plausible models such as that in Grier and Munger (1991) predict that access-oriented donations should be correlated with electoral competition.

(iii) Powerful incumbents will raise more money from access-oriented groups than other incumbents, because they can deliver each unit of "effective access service" at a lower cost. So, they will sell more units of effective access service (at the going market price), and will therefore raise more money. Note that powerful incumbents might or might not spend more *time* performing this service, depending on their demand for campaign funds.

(iv) Powerful incumbents will not raise much more money from ideological groups, because these groups do not demand the services that powerful candidates can deliver at lower cost.

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There might even be some "crowding out"—if powerful candidates raise enormous amounts from access-oriented groups, then the marginal product of money on their reelection probability will be lower, which will reduce the incentives for ideological groups to contribute to them. There are at least two possible exceptions to this. First, some ideological groups might value the agenda-setting powers held by party leaders. Second, some ideological groups might be able to persuade certain powerful incumbents to use their power to influence the votes of other members on issues of importance to the groups. Overall, however, we expect that ideological groups will not concentrate their contributions on powerful legislators as much as access-oriented groups will.

(v) Groups that command non-monetary resources valued by congressmen—blocs of votes, policy expertise, and influence over important economic actors—may appear to get "free" access. This access is not literally free, however. It is simply paid for in kind.

For simplicity, we call access-oriented groups "High-Demand" groups and ideological groups "Low-Demand" groups. We can collect items (i)-(v) above and restate them in terms of the following specific hypotheses regarding the allocation of different groups' PAC contributions:

- *Hypothesis 1.* High-Demand groups will place more weight on members' institutional leadership positions in Congress than Low-Demand groups.

- *Hypothesis 2.* Low-Demand groups will place relatively more weight on members' electoral circumstances than High-Demand groups.

- *Hypothesis 3.* Low-Demand groups will place more weight on members' ideology and/or issue positions than High-Demand groups.

We test these hypotheses in the next two sections.

3. Aggregate Relationships

The Lobbying Disclosure Act of 1995 requires that individuals and organizations provide much more information about their government relations activities than previous lobby-registration legislation required. Beginning in 1996, all lobbyists must file semiannual reports listing the name of each client and the income received from the client. All organizations with in-house lobbying staffs must file similar reports showing their total lobbying expenses. In addition to dollar amounts, the reports must provide information about the general and specific issues lobbied,

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including bills before Congress or executive branch actions. The reports must also state which chambers of Congress and which executive departments or agencies were contacted (if any).

Interest groups spent over $2.8 billion on targeted political activity during 1997 and 1998. Targeted political activity consists of PAC contributions to candidates and money spent to lobby government officials.[6] Table 1 highlights two important features of this political activity. First, lobbying expenditures comprise the bulk of all interest group money, almost 92%.[7] Second, groups that have positive lobbying expenditures and positive PAC contributions account for over 70% of the money. If PAC contributions buy lobbying access, then we expect contributions to influence the amount of money spent on lobbying, either contemporaneously or in successive years, or both. Table 1 suggests that lobbying is positively correlated with PAC giving.[8]

[Table 1]

Table 1 clearly contradicts past research on the extent of overlap of interest group lobbying and contributing. Previous studies relied on counts of the number of groups engaged in one or both forms of political activity, or on survey responses by organization leaders about the importance of different sorts of activities. Neither of these approaches captures the *amount* of activity. In these accountings, an organization that devotes few resources to government relations receives as much weight as an organization heavily involved in lobbying or contributing. Counting organizations, we too would reach the conclusion that there is little overlap between contributing and lobbying: 80% of the groups in our sample (4,915 out of 6,124) focus exclusively on one of these activities. However, these groups account for only 30% of total spending. Weighted by size, we find that groups that both lobby and contribute account for the vast majority of the resources devoted to political action in Washington.[9]

Closer examination of the data also reveals considerable variation in the extent to which groups emphasize lobbying or contributing. Figure 1 displays the relationship between lobbying expenditures and campaign contributions for four types of organizations: corporations, trade and professional associations, issue and ideological groups, and labor unions.[10] These categories are similar to, but not the same as, the categories used by the Federal Election Commission in its taxonomy of parent organizations of PACs. We divide the organizations this way because previous research highlights the differences in group strategy according to these broad types (*e.g.*, Welch, 1974, 1980; Snyder, 1990). Also, since the lobby expenditures and campaign contributions data

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are highly skewed, we use a cube-root transformation in order to highlight patterns that would otherwise be obscured by the presence of a few high spending organizations.[11]

[Figure 1]

For each group type there is a clear, positive association between total lobbying expenditures and total campaign contributions. However, the relationship between lobbying and contributing varies across the categories. The regression lines shown in Figure 1 are from bivariate OLS regressions for each group type, in which the dependent variable is non-zero lobby dollars and the independent variable is non-zero PAC dollars. The slope coefficients and R^2's are shown in column 8 of Table 2.[12] Corporations have the steepest slope. On average, businesses that engage in both lobbying and contributing spend roughly $2 more on lobbying for every additional $1 they spend in contributions, and the correlation between lobbying and PAC contributions is quite high. Non-corporate groups show much lower slopes. Trade associations and issue/ideological groups spend about $1 more on lobbying for every additional $1 they spend on campaign contributions. Unions spend 70 cents more on lobbying for each extra $1 on contributions. There is also considerable heterogeneity within group types, especially among trade and issue/ideological groups, which have substantially lower R^2 than the business and union groups.

Table 2 elaborates further on the information depicted in Figure 1. Columns 3 and 4 show aggregate spending amounts. Corporations account for a majority of the lobbying dollars and a plurality of the PAC dollars. Compared to other types of organizations, corporations engage in much more lobbying than PAC giving. Corporations account for 56% of all lobbying expenditures, but only 40% of all PAC contributions. By contrast, labor unions account for only 2% of all lobbying, but 23% of all PAC giving. Trade associations and issue groups fall in between. This pattern, as well as that in Figure 1, suggests that corporations and unions may pursue markedly different political strategies through their campaign contributions. For unions, donations seem to be less oriented to to gaining access. This pattern holds at the individual organization level also. The relationship between lobbying expenditures and PAC contributions is much stronger for corporations than other groups (column 8).

[Table 2]

We draw two important lessons about lobbying and contributing from these patterns. First, there is in general a strong positive relationship between donating money and lobbying, even for

types of groups that seem to emphasize lobbying less, such as unions. Second, groups definitely vary in the degree to which they emphasize lobbying. Corporations place much heavier emphasis on lobbying than other types of groups do.

These features of group political activity suggest that a simple (though hardly perfect) measure of the extent which a group is interested in using its contributions to gain access is the ratio of the groups' lobbying expenditures to its PAC contributions. An indication of the validity of this metric is offered by lobbying firms that also have political action committees. These firms are the most extreme cases of inside-politics donors: their business is lobbying Congress and the executive. They exhibit very high lobby-to-contribution ratios.

Table 2 summarizes the ratio of lobby expenditures to PAC contributions for the four categories of groups. These are shown in Columns 5-7, which present the lowest third, middle third, and highest third of the PAC money. In other words, one-third of the total PAC money comes from groups with lobby-PAC ratios less than .9, one-third comes from groups with lobby-PAC ratios between .9 and 6, and one-third have lobby PAC ratios greater than 6. This distribution, though, varies starkly across types of groups. Over 60% of all corporate PAC dollars were spent by firms in the "high demand" group, with lobby-PAC ratios of 6-to-1 or more. None of the labor contributions, and only 5% of the issue-group contributions, fell into this category. Instead, most of the PAC money for these types was spent by "low demand" groups with lobby-PAC ratios less than 1-to-1. Only 12% of corporate contributions was spent by low demand groups. Trade association money is distributed fairly evenly across the categories.

Overall, the classification in Table 2 captures some of the interesting heterogeneity across groups. Corporations exhibit patterns that are most consistent with an access strategy. Ideological and labor organizations suggest a more electoral orientation. Trade and professional associations appear to be more of a mixed group. While only crude inferences can be drawn from the aggregate data in Tables 1 and 2, they comport fairly well with the results from earlier work on lobbying activities. For example, 51% of the 85 PACs surveyed by Davis (1988) claimed that access was an important motivation for giving. In our data, just under 50% of the groups with PACs also spent money on lobbying. Davis also found that 89% of the groups claiming that access was important were either corporations or trade organizations. Defining groups that have positive PAC contributions and a lobby-PAC ratio greater than or equal to 6 as "access oriented," we find that 97% of the access oriented groups are either corporations or trade associations.

The patterns in Tables 1 and 2 are interesting and instructive in their own right. They set the stage for a sharper test of the access story. If a substantial fraction of campaign contributing is aimed at gaining access, then those groups that value access more should funnel their donations to legislators whose time they value most, namely those in positions of power. Likewise, those who value access less should devote relatively more of their resources to close races. Does the degree of emphasis on lobbying explain different contribution strategies? To that question we now turn.

4. More Refined Analyses

If access is important, then PAC contributions should be explicitly tied lobbying activities. As noted earlier, we would like to examine the relationship directly by comparing campaign contributions and amount of lobbying by group i to Congressman j in year t, that is, by correlating PAC_{ijt} and $Lobby_{ijt}$. Ideally, one would observe actual exchanges: what did the group lobby about, and what was the nature of the contribution? Unfortunately, the available data prohibit such tests. Also, the lobby reports contain no information on who is lobbied: they only report total lobbying dollars of interest group j for the years 1997 and 1998.[13] Also, campaign contribution data are not sufficiently specific.[14]

Hypothesis 1-3 above represent weaker implications of the access idea, but they *are* testable using the available data. The hypotheses assert that groups interested in an access strategy will distribute their PAC contributions differently than those that care more about elections. Using the lobby and PAC data, we can divide the set of PACs into two types. Specifically, we assume that groups with high lobby-PAC ratios have a high demand for access, while groups with low lobby-PAC ratios do not. As in the previous section, we define the High-Demand group as the set of organizations with lobby-PAC ratios of 6-to-1 or more. The Low-Demand group is the set of organizations with lobby-PAC ratios of .9-to-1 or less. These cutoffs produce groups that are equal in size, in terms of total PAC contributions. The results do not vary much when we vary the cutoffs.[15] More properly, one should think of the hypotheses as expressing continuous relationships: relationships that change as a group's demand for access varies. The contrast between the High-Demand and Low-Demand groups is a convenient simplification.

We turn to Hypothesis 3 first. Recall the hypothesis: Low-Demand groups should be substantially more ideological and partisan than High-Demand groups. The presumption is that

Low-Demand groups pursue electoral strategies—using their contributions to help re-elect their friends and defeat their enemies—because they have ideological or issue goals that only certain types of legislators are willing to support. On the other hand, High-Demand groups should exhibit a more balanced, bi-partisan pattern of PAC giving because the access and services they desire can be performed equally well by many different types of legislators.

These patterns appear clearly in the data, as shown in Table 3. Column 2 of the table shows the extent to which organizations gave in a partisan or bi-partisan manner. For each organization we calculated the Partisan Contribution Gap as follows. Let D_j be total PAC contributions from the organization to Democratic candidates, and let R_j be total PAC contributions to Republicans. Then the Partisan Contribution Gap for the organization is $\sum_j |D_j - R_j| / \sum_j (D_j + R_j)$. A gap of 0 means that the group's contributions were divided equally across both major parties, and a gap of 1 means that all contributions went to the group's "favorite" party. Column 2 shows the average gap for each lobby-PAC category (weighted by contributions). The gap is more than three times as large for groups with low lobby-PAC ratios as it is for groups with high lobby-PAC ratios.

[Table 3]

Column 3 shows the degree to which organizations focused their contributions narrowly on legislators with similar "ideologies," or spread their contributions across the ideological spectrum.[16] We then calculate the degree of ideological variation as follows. For each group i, let SD_i be the standard deviation of the roll-call based ideology scores of the congressmen to which the group gave positive contributions (weighted by the contribution amounts). Then Ideological Variation is the average of SD_i across all groups in the given lobby-PAC Ratio category (weighted by each group's total contributions). The degree of ideological variation for groups with high lobby-PAC ratios is more than 60% larger than for groups with low lobby-PAC ratios.[17]

Finally, note that the contribution patterns of Washington-based lobbying firms are about as bi-partisan and ideologically balanced as the patterns for groups with high lobby-PAC ratios.

We turn now to Hypotheses 1 and 2. Recall the hypotheses: Compared to Low-Demand groups, High-Demand groups should allocate a relatively large fraction of their resources to candidates who control the levers of institutional power, such as committee chairs, party leaders, and members of the majority party. By constrast, Low-Demand groups should pay less attention to institutional positions, and should instead allocate more strongly in response to electoral considerations.

To test for these differences, we examine how the contribution patterns of high and low demand groups differ across legislators. The units of observation are now *candidates* (recipients of contributions) rather than groups. Our analysis covers the U.S. House from 1988 to 1998. For each election cycle, we create two dependent variables for each House member. One is the member's share of total PAC contributions made by High-Demand groups, and the other is the member's share of total PAC contributions made by Low-Demand groups.[18] We use shares rather than totals to control for variation in spending levels over time and across the two categories of PACs. We analyze all candidates who served in the House at some point during the period—that is, all incumbents, and all races where incumbents ran prior to becoming incumbents. In the end, we have 2,599 observations for each lobby-demand category: approximately 433 candidates per election cycle × 6 elections.

The institutional variables are as follows: party leaders, committee leaders, members of "powerful" committees, members of "weak" committees, members of the majority party, and incumbents. Party leaders are the Speaker, Majority Leader, Minority Leader, Majority Whip, Minority Whip, chair of the Democratic Caucus, chair of the Republican Conference, chair of the Democratic Congressional Campaign Committee, and chair of the National Republican Congressional Committee. Powerful committees are those with legislative power in broad substantive areas or institutional power in procedural matters: Appropriations, Energy and Commerce (now Commerce), Rules, and Ways and Means. Weak committees have relatively little substantive or institutional power, or deal mainly with foreign affairs: District of Columbia, House Administration, Government Operations, Government Reform and Oversight, Education and Labor, Foreign Relations (now International Relations), Small Business, Standards of Official Conduct, Oversight, and Veterans' Affairs.

We use four variables to measure electoral competition—district partisan competitiveness, challenger spending, a dummy indicating the presence of a challenger, and dummy for freshmen incumbents. We measure partisan competitiveness in district j as the $-|PV_j - \overline{PV}|$, where PV_j is the average Democratic share of the presidential vote and $\overline{PV}$ is the nationwide average.[19]

Appendix Table A.1 describes the data used in the regressions. The regressions measure the activities of over 2,400 PACs. Low-Demand PACs contributed about $74 million in the 1997-98 election cycle, and High-Demand PACs contributed about $69 million. The average candidate share of contributions over all years was .23%. Both groups spread their dollars over roughly the

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same number of candidates as well; on average, 98% of members received some Low-Demand contributions, and 97% received some High-Demand money. As shown, both equations have the same explanatory variables. The specification is linear with respect to all variables. In addition to the variables listed in Table A.1, we also added year dummies.

We estimated models with and without member-specific fixed effects. Tables 4 and Table 5 presents the results without and with fixed effects, respectively. The patterns are broadly similar in the two tables, and strongly supportive of hypotheses 1 and 2. If anything, the results without fixed effects are even more supportive of the two hyptheses (see footnote 20). We favor the fixed effects estimates, however, because it is likely that we have omitted important member-specific factors that affect contributions. These include a member's "ideological fit" with his or her district; ethnic, religious or other traits that make a member more or less safe in the district; a member's "taste" for fundraising (Green and Krasno, 1988); and a member's progressive ambition (Ansolabehere and Snyder, 1996). We present both sets of results because some readers might disagree.

[Table 4]

With fixed effects included, all but one of the estimated coefficients have the expected sign and relative magnitude (the exception is the Minority Party Leader dummy variable). The institutional coefficients are uniformly higher in absolute value for High-Demand groups than the Low-Demand groups, indicating that High-Demand groups do indeed pay much more attention to institutional players than do Low-Demand groups. There are especially large differences between High-Demand and Low-Demand groups in the extent to which they target majority party members and leaders, committee chairs, and members of the "powerful" and "weak" committees. The fact that there are pronounced differences between High-Demand and Low-Demand groups for the committee variables is especially suggestive of access, since committees play a prominent role in much of the previous work on access (*e.g.*, Hall and Wayman, 1990; Hansen, 1991). The electoral coefficients also comport with expectations. Low-Demand groups respond more to electoral competitiveness than do High-Demand groups. Most of the differences between groups are statistically significant. An F-test overwhelming rejects the hypothesis that the institutional and electoral variables as a set have the same coefficients for both High-Demand and Low-Demand PACs ($p < .001$).[20]

[Table 5]

The last three columns of Table 5 provides a substantive interpretation of the regression estimates. Consider a "typical" member initially receiving a total of $100,000 from Low-Demand groups. If the member became a committee chair, then he could expect to receive an additional $15,000 from these groups, an increase of 15%. He could expect even more from High-Demand groups—an extra $35,000, or 35%. Similarly, a one-standard-deviation increase in opponent spending would lead to a $36,000 increase in contributions from Low-Demand groups, on average, and a $20,000 increase from High-Demand groups.

Overall, these results provide strong evidence consistent with hypothesis that access motivates a substantial share of PAC contributions.

We offer one last analyses to bolster this conclusion. Lobbying firms are excluded from the analysis in Table 5. Yet, lobbyists ought to epitomize access-oriented behavior. Table 6 presents the estimates of a fixed effects model for lobbying firms, analogous to that in Table 5.[21] The dependent variable is the share of PAC contributions from lobbying firms that each candidate received in each year.

The lobbying firms generally target their funds in ways consistent with an access strategy. In fact, the pattern of estimates looks fairly similar to that for the High-Demand groups shown in Table 5. Lobbying firms tend to target majority party leaders, minority party leaders, and committee chairs to about the same degree as High-Demand groups. They target majority party members and members with no "weak" committee assignments even more heavily than High-Demand groups; but are somewhat less prone to target committee ranking members, members of "powerful" committees, and incumbents. With respect to the electoral variables, they look very similar to High-Demand groups except that they are somewhat more responsive to district competitiveness.

[Table 6]

5. Discussion

The improvement of this study over past research stems from the quantitative measurement of the amount of money that groups spend on lobbying and from matching the groups' total lobbying efforts to their total campaign contributions. Our tests of theoretical claims reveal a much stronger association between lobbying and contributing than most prior statistical research has indicated. First, there is a strong association between expenditures on lobbying and campaign

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contributions. This finding runs contrary to most prior research, which mainly counted numbers of organizations, rather than total activity or effort. Second, groups that engage heavily in lobbying contribute in ways that are consistent with an access motivation, while groups that do relatively little lobbying appear to be more ideological and partisan, and more strongly motivated by electoral circumstances. If lobbying and contributing were indeed separate political activities, or even substitutes, then the extent to which a group emphasized lobbying would likely have little bearing on its contribution strategies.

Of particular theoretical note, we find that all groups' contribution strategies respond to electoral competition, even those that emphasize lobbying heavily. This finding does not invalidate theories of "access buying," and is in fact predicted by many models of access-oriented giving (*e.g.*, Grier and Munger, 1991). A group can give a donation that helps someone who is sympathetic to them get elected, and at the same time increase the amount of time or the quality of the time that the groups' representatives can spend with that legislator. Beyond the issues of positive theory, this finding raises a potentially important normative issue as well. The possibility of strong complementarities between giving and lobbying reveals one way that groups' influence might be, to use Robert Dahl's terminology, cumulative. The resources mustered by one segment of society might, then, have disproportionate influence on both elections and legislation.

One open question is why many groups engage in only one kind of activity. Given the apparent complementarities between contributing and lobbying, why do some organizations only give and why do some only lobby? Of particular concern, why are there so many groups that have high lobby expenditures but do not have a PAC? The data examined here point to four possible explanations.

First, resource constraints prevent many groups from doing both. Groups that use only one avenue for influence are disproportionately those that devote little money to politics overall. There are fixed costs to starting a lobbying operation or a political action committee. For groups with few resources to devote to politics, fixed costs make the choice of political strategy an either/or decision, even though there are strong complementarities between contributing and lobbying.

Second, groups have many resources that may be substitutes for campaign donations, such as information, large membership bases, or location in a district. If these other resources make legislators very willing to meet with a group, then campaign contributions may be of little additional value to a group. Groups with large lobbying operations but small PAC operations are

mainly large membership organizations or peak associations.[22]

Third, groups differ in their political orientations. Some groups might be sufficiently ideologically extreme or sufficiently partisan that their lobbying efforts would be much less productive than contributing, because legislators already know where they stand. Unions and abortion rights groups offer the most obvious examples, and, in fact, the list of the 25 largest groups that have PACs but don't lobby consists largely of unions and single issue groups. The strategic problem for such groups is just this: they can gain sufficiently by speaking to legislators that they choose to target their friends and foes in the election. But such an observation is not exclusive of our main conclusion, that there is evidence of substantial complementarity between contributing and lobbying.

Fourth, groups' political horizons likely play a large part in their decisions to start and maintain either a PAC or a presence in Washington. Many groups are involved for only a very short time in Washington politics, say because a bill is currently on the agenda that directly affects them. These groups might also decide not to maintain a PAC. A cursory examination of our data bears out this point. Groups that do not have a PAC tend to hire DC firms to represent them, while firms that do have a PAC maintain an office in DC and devote two-thirds of their lobbying resources to in-house lobbyists.[23]

Our findings point to potentially strong connections between lobbying and campaign contributing, but they are not conclusive evidence that money buys access. In this regard, these results suggest to avenues for further inquiry. First, we feel that more careful study of the heterogeneity of groups is in order. Some important work has started political scientists in this direction. Second, we encourage further investigation into the relationship between groups donations to specific legislators and the amount of time spent with those legislators. Only this way will political scientists be able to measure the extent to which contributions really affect the way that legislators' allocate their time, and whether the wealth as a political resources magnifies political inequalities.

Appendix: Data Sources and Summary Statistics

This study uses data on the lobbying activities of interest groups that was unavailable until recently. The lobbying data originate from reports filed for calendar years 1997 and 1998 by registered lobbyists under the Lobbying Disclosure Act of 1995. That law requires that registered lobbyists whose activities on behalf of a client exceed $10,000 per year file semi-annual reports with the Clerk of the House of Representatives and with the Secretary of the Senate. Reported lobbying expenditures are rounded to the nearest $20,000. We obtained 1997-1998 lobbying data from the Clerk's office and the Center for Responsive Politics internet site (URL: http://www.opensecrets.org/lobbyists/index.htm).

The PAC data are from the Federal Election Commission. We examine contributions over the six election cycles in the period 1988-1998. Our data set comprises 6,487 interest groups, which is the union of the set of all groups filing lobbying reports for calendar years 1997-98 and the set of all non-party PACs that gave to House candidates in 1997-98.

Merging the lobbying and PAC data is a tedious and time-consuming process. We used *Congressional Quarterly's Federal PACs Directory, 1998-1999*, the Dow Jones Interactive information service, the Center for Responsive Politics internet site (see above), the *Directory of Washington Representatives* and the *Encyclopedia of Associations* to assist in this task.

The other variables are from standard sources. Committee assignments and leadership positions are from *Congressional Quarterly Almanac*; incumbency and open-seat status are from the Federal Election Commission and checked using Dubin (1998); district-level presidential voting data are from *The Almanac of American Politics* (various years); roll-call voting data used to compute members' relative ideological positions are from ICPSR study number 00004 and the House and Senate internet sites (URLs: http://www.house.gov and http://www.senate.gov).

Table A.1

Descriptive Statistics for House Races, 1988-1998

(n = 2599)

Variable	Mean	St.Dev.	Min.	Max.
% from Low-Demand Groups[1]	.231%	.163	0%	1.235%
% from High-Demand Groups[2]	.231%	.195	0%	1.538%
Institutional:				
Majority Party Member	.560	.560	0	1
Majority Party Leader	.012	.107	0	1
Minority Party Leader	.008	.087	0	1
Maj. Party Comm. Leader	.041	.198	0	1
Min. Party Comm. Leader	.038	.191	0	1
"Powerful" Committee	.298	.457	0	1
No "Weak" Committees	.663	.473	0	1
Incumbent	.860	.348	0	1
Electoral:				
Opponent Spending[3]	2.277	3.469	0	45.1
District Competitiveness	−.086	.076	−.479	−.000
Opposed	.813	.390	0	1
Freshman	.139	.346	0	1
Other:				
Open Seat Race	.096	.295	0	1
Democrat	.539	.499	0	1

[1] % of Low-Demand Group PAC dollars going to each candidate. Low-Demand Groups = Groups with Lobby/PAC Ratio ≤ 0.9.

[2] % of High-Demand Group PAC dollars going to each candidate. High-Demand Groups = Groups with Lobby/PAC Ratio ≥ 6.0.

[3] Challenger Spending in $100,000.

Endnotes

[1] The argument that groups seek access more than a quid pro quo dates at least to Truman (1948). See also Milbrath (1960) and Bauer, *et al.* (1963). A third alternative to the access-buying and vote-buying theories is an informational theory of access. In this view, Congressmen are concerned with efficient information gathering, and grant access to groups in an effort to acquire the private information these groups hold. See Wright (1996) for a general argument along these lines, and Potters and van Winden (1992), Austen-Smith and Wright (1995) and Lohmann (1995) for costly signaling models that capture some aspects of the argument. Austen-Smith (1995) presents a model that integrates access-buying and cheap-talk signaling.

[2] Sorauf, 1992, Chapter 6, gives a thorough summary of the literatures on vote buying and access buying. The main evidence for the access argument consists of a series of case studies and interviews with insiders (Herndon, 1982, Sabato, 1984, Clawson, Newstadtl, and Scott, 1992, Hall and Wayman, 1990). Surveys by Schlozman and Tierney (1986) and Gais and Walker (1991) provide quantitative evidence that groups that donate money seek access. For example, Schlozman and Tierney report that 59 percent cite the candidates' positions on a few issues of special concern as especially important in making contribution decisions; 46 percent cite committee assignments; only 22 percent cite the location of the district and 15 percent cite the closeness of the race.

[3] See Gais (1983), page 9. Gais and Walker (1991) also report that 80 percent of the groups in their survey state that lobbying is an important activity, but only 23 percent state that electioneering is important. Gais (1999) provides a thorough analysis of the decision to form a PAC. He reports that a groups' emphasis on legislative lobbying is not a statistically significant predictor of having a PAC (Table 4.3, page 97). However, working with a congressional subcommittee is a strong predictor of having a PAC.

[4] A third piece of evidence against the access story derives from the operation of interest group organizations. Handler and Mulkern (1982), Schlozman and Tierney (1986) and Wright (1985)

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offer interviews and survey results revealing that contribution decisions are most often made by the local organizations rather than by the Washington DC staff.

[5] Ideally, for each group and each legislator we would measure whether or not the group lobbied the legislator and the intensity of their lobbying effort, how much the group contributed to the legislator, and the topic of the lobbying effort. Such data are currently unavailable, and are likely to be unattainable except in a few special cases. The closest studies are Langbein (1986) and Hojnacki and Kimball (1998, 1999). The results from these studies are mixed. Using a survey of 92 House representatives from the 95th Congress, Langbein measures the number of minutes each member spent in meetings with lobbyists and finds that members who spent more time on this activity raised more in total PAC contributions during the 1975-76 election cycle. She even estimates a price schedule—for example, 25 minutes costs of access cost $6,390. Hojnacki and Kimball use a survey to collect data on individual lobby contacts with members of congress, for a sample of 69 interest groups. They then run probit analyses predicting the probability that a specific group contacted each representative. They include a dummy variable indicating whether each group has a PAC and find that having a PAC does not have a significant effect on the probability of making a contact in the specifications reported, though they state that in some specifications having a PAC does matter. Neither research enterprise looks at whether contributions from a PAC to a specific legislator affect whether the group lobbies that legislator. Even if they did disaggregate to that level, there remains the problem of simultaneity between contributions and lobbying (analogous to contributions and roll call votes, see for example, Chappell 1981). Some sort of instrumental variable would be required in order to produce valid estimates of the effects of contributions on lobbying. In another study, Chin, Geva, Bond (1999) performed an experiment involving congressional staffers to see if they were more likely to schedule an appointment with a lobbyist who was a "PAC Director" or a lobbyist listed as an "executive." Staffers were equally willing to schedule appointments with both types of lobbyist, but the experiment did not involve campaign contributions (actual or suggested).

[6] "Soft money" contributions, which go to parties and are supposed to be limited to party-building activities, are not included.

[7] This proportion is remarkably close to the only other estimate of we know of, in Wright (1990). The organizations in his survey reported that approximately 91% of their money was for lobbying activities.

[8] The distributions of PAC contributions and lobbying expenditures are both highly skewed. Over 20% of the groups did not engage in any lobbying in 1997 or 1998, and over 50% made no PAC contributions in 1995-96 or 1997-98. Average lobbying expenditures in 1997 and 1998 for all groups was $423,000; the average among groups with non-zero lobbying expenditures was $542,000. PAC contributions for the period 1995-98 averaged $37,000 for all groups and $90,000 for those groups with non-zero PAC contributions.

[9] We may understate the relationship between lobbying and contributing because we may have undercounted the amounts spent on lobbying by some organizations. Some groups may not have lobbied Congress during the brief period over which the data are available. The lobbying data are still new, and with a longer time series we will eventually be able to measure regular and intermittent lobbying. Another difficulty in the accounting arises with peak associations, which might establish temporary lobbying coalitions with their member groups (see Maitland, 1984). When we exclude such cases from Table 1 or from the regression analyses below our results look very similar.

[10] There is a residual, "other" category containing almost 20 percent of the total groups. These groups account for less than 6% of all spending, and a large fraction of them are legally barred from giving money in federal elections (*e.g.*, C-3 non-profits and local governments).

[11] As a data analytic matter, the cube root has many advantages compared with the more commonly used logarithmic transformation. The cube root makes the marginal distributions nearly normal and, unlike logarithmic transformations, is defined for cases with zero expenditures. The existence in our data of a large proportion of zeros makes logarithmic or Box-Cox transformations somewhat problematic.

[12] Tobit analysis, which include all the zero lobbying observations and zero PAC observations, show the same pattern, but the slope coefficients are slightly lower.

[13] Not only are lobbyists not required to report which officials were lobbied, they are specifically

instructed *not* to report the names of individuals contacted. The instructions for filling out the lobby disclosure form (Form LD-2) state: "Identify the Houses of Congress and Federal agencies contacted by the registrant in connection with the general issue area during the reporting period. Disclose only the houses or agencies, such as 'Senate', 'House of Representatives', 'Department of Agriculture', or 'Executive Office of the President,' rather than the individual office." (URL: http://clerkweb.house.gov/lrc/pd/lobby/ld-2.htm).

[14] The lack of information about the nature of the relationship between donors and legislators has long troubled scholars researching this subject. Hojnacki and Kimball (1998, 1999) come closest to this level of disaggregation, but further disaggregation maybe required. As mentioned in footnote 5, researchers need to associate how much is given to particular legislators from specific organizations with how many minutes of lobbying or access they received. Even after disaggregating to that level, an instrumental variable would be required to untangle the simultaneous causation between contributing and lobbying individual members.

[15] There is another caveat: We do not know precisely how much of a group's lobbying effort was directed at Congress and how much was directed at the exectutive branch, except when *none* of the effort was directed at the executive. Fortunately, the hundreds of reports that we examined indicate that groups expend considerable effort and resources lobbying Congress. Virtually all reports listed at least one branch of Congress as a target of lobbying, and most listed specific legislation as the main target of lobbying. Relatively few groups listed specific executive branch actions. In addition, our empirical findings are unchanged even if we exclude groups that *ex ante* appear to have considerable incentive to devote much of their attention to executive branch lobbying. Following a suggestion by John DeFiguereido we isolated groups in heavily regulated industries, which, according to Professor DeFiguereido, lobby the executive heavily. Removing these groups did not affect the results.

[16] We used the first-dimension linear-factor scores from Heckman and Snyder (1997) as the measure of legislator ideology.

[17] We adjusted the scores using the technique in Groseclose, Levitt and Snyder (1999) to make them more comparable over time, and normalized them to range from approximately -1 to 1. The

overall standard deviation of scores in our sample is about .72 (it varies slightly from congress to congress). Thus, groups with high lobby-PAC ratios exhibit rather large amount of ideological variation—nearly .6 of the overall standard deviation, on average.

[18] So, if X_t^L is aggregate PAC contributions by all Low-Demand organizations in cycle t, and x_{jt}^L is candidate j's total PAC contributions from Low-Demand organizations in cycle t, then $s_{jt}^L = x_{jt}^L / X_t^L$.

[19] We use the average presidential vote in 1980, 1984 and 1988 for the races in 1988-1990, and the average presidential vote in 1988, 1992 and 1996 for the races in 1992-1998.

[20] The results in Table 4 are similar to those reported in Table 5, but show even greater differences between the Low-Demand and High-Demand groups. The institutional coefficients are *all* higher in absolute value for High-Demand groups than the Low-Demand groups, and 6 of the 8 are differences are significant at the .05 level. Similarly, the absolute values of the electoral coefficients all indicate that Low-Demand groups respond more to electoral competitiveness than do High-Demand, as predicted, and 3 of the 4 are statistically significant.

[21] There are 55 lobbying firms in the sample, and their combined PAC contributions in the 1997-1998 election cycle were $4,253,000. One methodological problem, which is not an issue for the results in Table 5, is that the dependent variable may be censored—19% of the observations are zero. Since the econometric techniques for dealing with censored variables in fixed-effects regressions are quite involved and the analysis in Table 6 is not a major part of the paper, we report OLS estimates.

[22] The five largest such organizations are the U.S. Chamber of Commerce, the Business Round Table, the Christian Coalition, the Seniors Coalition, and the American Automobiles Manufacturers' Association. The mega-membership seniors' groups, including the AARP and the 60 Plus Association, also make the list of groups that lobby but give little or nothing.

[23] There are 53 organizations in our sample that spent $300,000 on lobbying had no PAC. These organizations spent 75% on "outside" lobbyists. We sampled 50 firms that spent over $300,000 on lobbying and had a PAC. These firms spend 70% percent of their lobbying dollars for "in-house" lobbyists, and only 30% to retain outside firms.

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	N	Lobby $	(%)	PAC $	(%)	Total $	(%)
Table 1							
Targeted Political Activity							
Lobby Expenditures: 1997-98 total							
PAC Contributions: 1995-98, avg. of 2 election cycles							
(dollar amounts in millions of 1998 dollars)							
Lobby only	3,570	818	(31)			818	(29)
PAC only	1,345			32	(14)	32	(1)
Lobby and PAC	1,209	1,788	(69)	198	(86)	1,986	(70)
Total	6,124	2,606	(100)	230	(100)	2,836	(100)

Table 2

PAC Contributions and Lobbying, by Type of Group

(dollar amounts in millions of 1998 dollars)

Group Type	(N)	Lobby $ $	Lobby $ (%)	PAC $ $	PAC $ (%)	% Distrib. of PAC $ by Lobby/PAC Ratio:[1] $r \leq .9$	% Distrib. of PAC $ by Lobby/PAC Ratio:[1] $.9 < r < 6$	% Distrib. of PAC $ by Lobby/PAC Ratio:[1] $r \geq 6$	Descriptive Regression[2] β	Descriptive Regression[2] (R^2)
Corporation	2,654	1,432	(55)	92	(40)	12	27	61	2.01	(.52)
Trade Assoc	1,481	769	(29)	63	(27)	30	42	28	1.07	(.28)
Issue/Ideol.	669	169	(6)	21	(9)	75	19	6	1.03	(.28)
Labor Union	154	49	(2)	54	(23)	51	49	0	.70	(.56)
Other[2]	1,166	187	(7)	—[3]	(0)	–	–	–	–	–
Total	6,124	2,606	(100)	231	(99)	32	34	33	1.18	(.32)

[1] Lobby/PAC Ratio $= r$ is the ratio of total lobby expenditures in 1997-1998 to average PAC contributions in the 1995-96 and 1997-98 election cycles.

[2] Results of a bivariate OLS regression. The dependent variable is non-zero lobby dollars and the independent variable is non-zero PAC dollars (both subject to a cube-root transformation).

[3] U.S. state/local/territorial government and quasi-government organizations, foreign government organizations, certain non-profit organizations such as universities and hospitals, and groups with unknown affiliations.

[4] Less than $500,000.

Percentages may not sum to 100 due to rounding.

Table 3

**Partisan Contribution Gap
and Ideological Variation
In Contributions to House
1988-1998
By Lobby/PAC Ratio**

Lobby/PAC Ratio	N	Contribution Gap	Ideological Variation
$r \leq 0.9$	268	.65	.26
$0.9 < r < 6.0$	262	.49	.32
$r \geq 6.0$	378	.20	.42
Lobby Firms	36	.25	.44

Contribution Gap $= \sum_i |D_i - R_i| / \sum_i (D_i + R_i)$, where D_i is total PAC contributions by group i to Democratic candidates, and R_i is total PAC contributions by group i to Republican candidates. The sum is taken over all groups in the given Lobby/PAC Ratio category. So, Contribution Gap ranges from 0 to 1, where 0 means that equal contributions were made to both parties (no bias), and 1 means that all contributions went to the "favored" party (maximal bias).

Ideological Variation is computed as follows. For each group i, let SD_i be the standard deviation of the roll-call based ideology scores of the congressmen to which the group gave positive contributions (weighted by the contribution amounts). Then Ideological Variation is the average of SD_i across all groups in the given Lobby/PAC Ratio category (weighted by each group's total contributions).

The sample consists of all PACs that existed in 1998 and contributed a total of at least $100,000 over the 6 election cycles.

Table 4: OLS Results for House Races, 1988-1998 (n = 2599)

Variable	Regression Estimates			Implied Dollar Changes		
	Low-Demand	High-Demand	High v. Low	Low-Demand	High-Demand	% Diff.
Institutional:						
Majority Party Member	.007 (.005)	.031** (.007)	.01	3,000	12,000	340
Majority Party Leader	.289** (.023)	.537** (.028)	.01	113,000	209,000	86
Minority Party Leader	.321** (.028)	.399** (.034)	ns	125,000	156,000	24
Maj. Party Comm. Leader	.023 (.013)	.122** (.015)	.01	9,000	48,000	432
Min. Party Comm. Leader	.044** (.013)	.070** (.016)	ns	17,000	27,000	60
"Powerful" Committee	.012 (.007)	.126** (.008)	.01	5,000	49,000	930
No "Weak" Committees	.012 (.007)	.039** (.008)	.01	5,000	15,000	223
Incumbent	.151** (.014)	.223** (.018)	.01	59,000	87,000	47
Electoral:						
Opponent Spending	.019** (.001)	.009** (.001)	.01	50,000	25,000	-51
District Competitiveness	.294** (.034)	.263** (.042)	ns	17,000	16,000	-10
Opposed	.039** (.007)	.011 (.008)	.01	15,000	4,000	-73
Freshman	.075** (.008)	.023* (.009)	.01	29,000	9,000	-70
Open Seat Race	.109** (.014)	.115** (.018)	ns	42,000	45,000	6
R^2	.44	.40				

* = Significantly different from zero at .05 level.

** = Significantly different from zero at .01 level.

The "High v. Low" column reports significance levels for F-tests for differences between regression coefficients for High-Demand and Low-Demand groups.

	Regression Estimates			Implied Dollar Changes		
Table 5: Fixed-Effects Results for House Races, 1988-1998 (n = 2599)						
Variable	Low-Demand	High-Demand	High v. Low	Low-Demand	High-Demand	% Diff.
Institutional:						
Majority Party Member	.013** (.005)	.041** (.005)	.01	5,000	16,000	223
Majority Party Leader	.133** (.025)	.386** (.028)	.01	52,000	150,000	189
Minority Party Leader	.194** (.029)	.191** (.032)	ns	76,000	74,000	-2
Maj. Party Comm. Leader	.037* (.015)	.091** (.017)	.05	15,000	35,000	142
Min. Party Comm. Leader	.026 (.014)	.057** (.016)	ns	10,000	22,000	119
"Powerful" Committee	.004 (.009)	.083** (.011)	.01	2,000	32,000	1757
No "Weak" Committees	.008 (.008)	.029** (.009)	ns	3,000	11,000	273
Incumbent	.156** (.013)	.185** (.015)	ns	61,000	72,000	19
Electoral:						
Opponent Spending	.016** (.001)	.009** (.001)	.01	43,000	25,000	-43
District Competitiveness	.307** (.076)	.135 (.084)	ns	18,000	8,000	-56
Opposed	.032** (.006)	.027** (.006)	ns	12,000	10,000	-16
Freshman	.062** (.007)	.036** (.008)	.01	24,000	14,000	-42
Open Seat Race	.118** (.012)	.111** (.014)	ns	46,000	43,000	-7
R^2 (within)	.35	.41				

* = Significantly different from zero at .05 level.

** = Significantly different from zero at .01 level.

The "High v. Low" column reports significance levels for F-tests for differences between regression coefficients for High-Demand and Low-Demand groups.

Table 6

Fixed-Effects Results for Lobbying Firms

Variable	Regression Estimates	Implied $ Change
Institutional:		
Majority Party Member	.068** (.009)	27,000
Majority Party Leader	.369** (.050)	144,000
Minority Party Leader	.206** (.058)	80,000
Maj. Party Comm. Leader	.112** (.030)	44,000
Min. Party Comm. Leader	−.002 (.028)	−1,000
"Powerful" Committee	.034 (.018)	13,000
No "Weak" Committees	.048** (.016)	19,000
Incumbent	.108** (.027)	42,000
Electoral:		
Opponent Spending	.011** (.002)	29,000
District Competitiveness	.327* (.150)	19,000
Opposed	.027* (.011)	11,000
Freshman	.032* (.014)	13,000
Open Seat Race	.054* (.024)	21,000
R^2 (within)	.25	

* = Significantly different from zero at .05 level.

** = Significantly different from zero at .01 level.

Figure 1
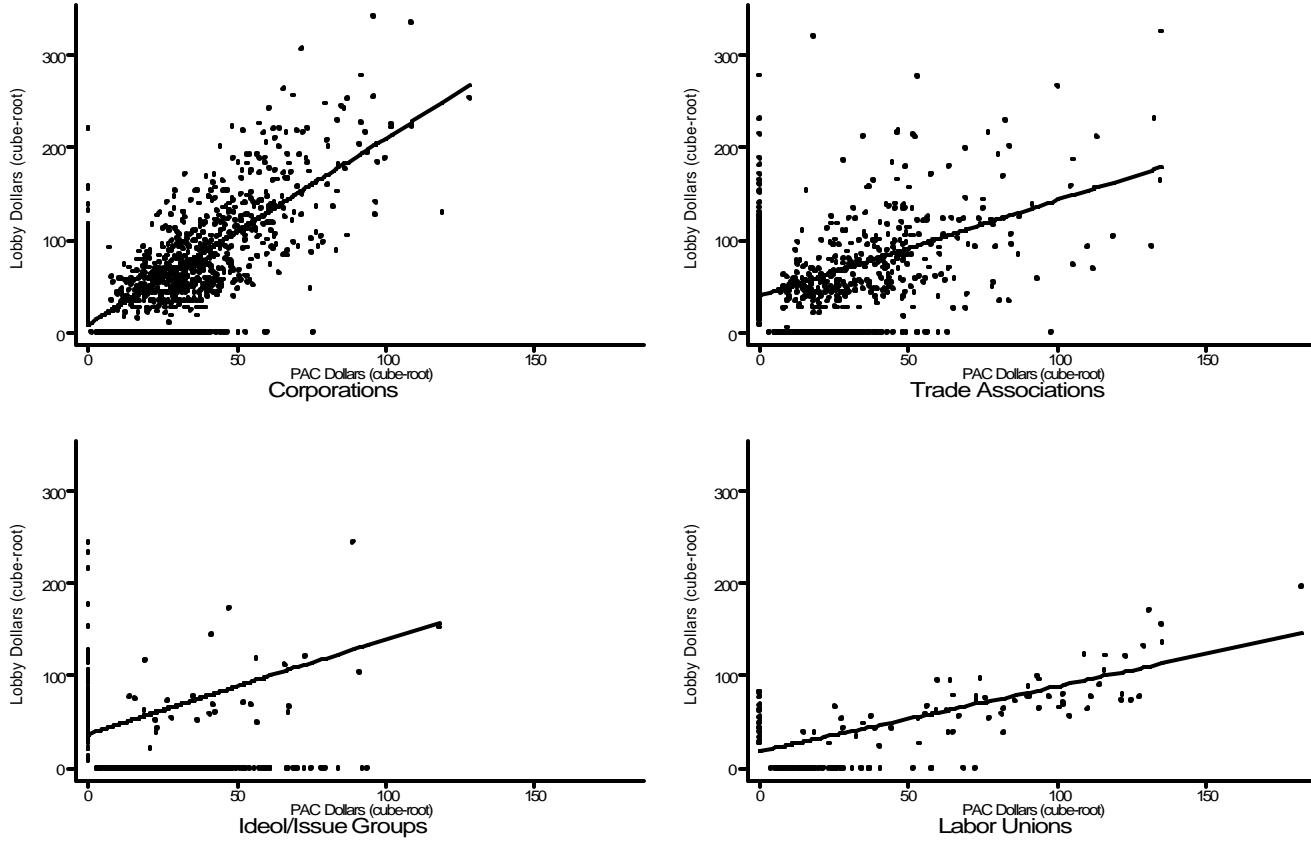
Lobby Dollars vs. PAC Dollars, by Group Type