CORPORATE CAMPAIGN CONTRIBUTIONS, REPEAT GIVING, AND THE REWARDS TO LEGISLATOR REPUTATION*

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ABSTRACT

Are politicians who follow a strategy of reputational development rewarded with high levels of corporate campaign contributions? Reputational clarity could help to reduce uncertainty about a candidate and lead to high campaign contributions from favored interests. Alternatively, such clarity could alienate those who disagree and not permit the politician to obtain contributions from groups on both sides of an issue. We outline an approach that considers conditions under which a politician would and would not prefer reputational development and policy-stance clarity and consistency in the context of repeat dealing with special interests. Our proxy for reputational development is the percent of repeat givers to a legislator. Using data on corporate political action committee contributions (PACs) to members of the U.S. House during the seven electoral cycles from 1983/84 to 1995/96, we explore a variety of alternative hypotheses and find that high reputational development is rewarded with high PAC contributions.

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I. Introduction

A long-standing controversy in the political economy literature is whether and under what circumstances politicians prefer to pursue clear and consistent policy positions.[1] On the one hand, a clear reputation on policy positions can help to reduce uncertainty about what actions a politician is likely to undertake while in office and thus can result in greater electoral support and/or higher campaign contributions from those favoring such policies. On the other, politicians might wish to obscure their specific policy views in order to avoid alienating those who disagree and to obtain campaign contributions from groups on both sides of an issue.

While the theoretical controversies continue, relatively little empirical work has been done to examine the implications of the alternative views (e.g., Snyder 1990 and 1992, McCarty and Rothenberg 1996, and Kroszner and Stratmann 1998). One of the reasons for the lack of empirical work is the difficulty of developing a convincing proxy for clarity and consistency of a politician's positions and relating this proxy to some measure of "success." We will operationalize the extent of clear and consistent reputations by examining the patterns of campaign contributions from political action committees (PACs). Our proxy for the extent of reputational clarity is frequency of repeat contributors to a legislator, and we measure the rewards in terms campaign fund-raising success. Our data will concern corporate PAC contributions to members of the U.S. House of Representatives, so our investigation will also allow us to examine the strategies that firms pursue in the political marketplace.[2]

Understanding whether the PAC-legislator exchange market provides incentives for clarity in

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[1] See, for example, Downs (1957), Zeckhauser (1969), Shepsle (1972), Bernhardt and Ingberman (1985), Alesina and Cukierman (1990), Glazer (1990), Snyder (1990 and 1992), Romer and Snyder (1994), McCarty and Rothenberg (1996 and 2000), Aragones and Postlewaite (1998), Kroszner and Stratmann (1998 and 2000), and Aragones and Neeman (forthcoming).

[2] Our focus is on individual legislators, so we are not directly addressing the role of clarity versus ambiguity for party platforms or for the executive. Also, the part of the policy space we focus on concerns issues relevant to business interests and thereby sheds light on what has come to be called the "non-market" strategies of firms (e.g., Baron 1998 and Yao 2003).

politicians' positions has potentially important implications for campaign finance and legislative reform proposals. If long-term reputation-building is an important feature of the PAC-legislator exchange, for example, some form of term limits would be an effective means of breaking the relationship between PACs and legislators. In addition, strict limits on current and future PAC contributions also would reduce the incentives for reputation-building because the prospect of future contributions is the key to sustaining the relationship. In contrast, if politicians are playing one PAC against another to increase contributions, term limits and campaign contribution limits are less likely to change the relationship between PACs and legislators.

Section II begins with a discussion of reputation-building by legislators that emphasizes the role of the committee system of Congress in helping to clarify or to cloak a legislator's policy position. This approach allows us to draw contrasting implications for the relation of repeat contributions to committee seniority, the probability of leaving office, and the level of campaign contributions under the "clarity and consistency pays" hypotheses. We also consider a number of alternative hypotheses, including the rewards to ambiguity, power, and policy-expertise, as well as a politician's demand for contributions. Section III describes the data, sources, and variable definitions. We then explain our research design and report the results in Section IV.

We find that, holding other factors constant, legislators with greater tenure on their committee assignments have a higher frequency of repeat PAC contributors. In addition, the frequency of repeat PAC contributors falls as a legislator becomes more likely to leave office. We then find that legislators with high reputational development are rewarded with a high level of corporate PAC contributions. While we find mixed support for alternative hypotheses, the results are all consistent with legislators pursuing a strategy of reputational development. In the conclusion, we discuss how campaign finance reforms, changes in legislative organization, and term limits can affect the incentive and ability for legislators to engage in reputation-building strategies that we document here.

II. Reputation-Building, Interest Group Competition, and Alternative Hypotheses

A. Interest Group Competition and the Value of Reputation

In this section, we sketch informally a repeat-play approach that will provide empirical implications related to campaign contributions. We assume that the legislator's primary objective is to maximize chances for reelection and that direct service for constituents and campaign contributions are the key inputs that affect the fulfillment of this goal (e.g., Grier and Munger 1991). Contributions and constituency services are substitutes for gaining recognition and support among voters and in fending off attacks by challengers. Legislators must decide how best to allocate their time and effort between direct constituency service and fund-raising to maximize their probability of reelection.

Voters and organized interest groups hope to influence policy outcomes but are initially uncertain about what policy a legislator will support and how much effort the legislator will expend on a particular issue. These actors can learn about the legislator's "reliability" by observing the legislator's actions over time.[3]

Initially, a PAC contributes to a legislator and then observes whether the legislator appears to be working in its favor or not. The PAC then decides whether to support a legislator with further contributions or to terminate the relationship and contribute to another legislator. As the perceived uncertainty about a legislator's reliability is reduced through repeated interactions, the PAC may be willing to contribute more to the legislator, and the legislator may then be willing to cooperate more closely with the PAC, as in Ghosh and Ray (1996).[4] The incentives for "reliable" behavior exist to the

[3] These actions encompass not only a legislator's voting record but also his history of introducing and amending of bills, negotiating with other legislators to gain or prevent collective legislative support, pressuring "independent" regulatory agencies through budgetary control and oversight hearings, and publicly promoting a position through media interviews and meetings with constituents (e.g., Hall and Wayman 1990 and Hall 1996). Similarly, the legislator can learn about the "reliability" of the PAC by observing its contribution patterns. We generally assume that the PACs have developed clear reputations in the past (e.g., through their history of contribution patterns) for reliability.

[4] Ghosh and Ray (1996) demonstrate that gradual trust-building can emerge in this setting: "any long term relationship involves a low, initial level of cooperation (when players are uncertain about the other's

extent that the present discounted value of future "profits," in terms of the stream of future contributions from the PAC, outweigh the benefits of shirking in the current period. The threat of termination of future contributions by the PAC thus can provide incentives for cooperation even when no explicit contract between the PAC and the legislator can be enforced (e.g., Fudenberg and Maskin 1986 and Abreu 1988).

In particular, the committee system of the U.S. Congress can provide a mechanism for legislators to build credible reputations in specific policy areas (see Kroszner and Stratmann 1998). The system involves standing (permanent) committees with specialized policy jurisdictions in which incumbents effectively have a right to stay on as long as they are reelected. This structure allows for repeated interaction of the committee members and the special interest groups that are most relevant to issues under the committee's jurisdiction. Greater tenure on a particular committee assignment provides greater opportunities for a legislator to develop a clear and credible position and to demonstrate the amount of effort he will devote to promoting that position. Special interest groups thus have greater information about legislators who have been on the relevant committees longer and can better assess the reliability of senior relative to junior committee members.[5]

A "reputational equilibrium" in which special interests provide high levels of contributions to their favored legislators and the legislators provide a high level of effort on behalf of the interests,

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type), which increases to a higher level when the initial phase is successfully passed without termination" (p.493). An additional assumption necessary for this result is that some subset of players are "myopic," that is, they discount the future very heavily, and thus cannot be "trusted." The existence of myopic players gives the non-myopic players a scarcity value that makes their partners reluctant to deviate for short-term gain and break the long-term relationship (because the partner will have to bear the costs of finding a non-myopic player and then rebuilding a cooperative relationship). In the politics, it seems plausible that some legislators may have high discount rates and are untrustworthy but that it is difficult to identify them ex ante.

[5] In the reputational equilibrium, an interest group will not have an incentive to abandon a legislator who has invested to develop a consistent reputation of supporting that group's particular set of interests. Since the campaign contributions are compensating the legislator for the opportunity cost of his time in specialization, the legislator would reallocate his time to direct constituency service or to work on another committee without contributions from the interest group. Also, the interest group does not want to lose its own reputation for reliability. If the interest group were to stop contributing to long-time supporters, then that interest group would lose credibility and, perhaps, all future opportunities to vie for the favor of legislators.

however, does not necessarily exist. If the prospects for legislator reelection are sufficiently low[6] (with term limits being an extreme case) or if the committee system of Congress does not provide sufficient opportunities for repeat dealing, a legislator will have difficulty building a credible reputation for reliability on a policy issue. Since the PAC would have less ability to gather information about the legislator's reliability and would not have the "carrot" of high future contributions to induce cooperative behavior, the PAC would not find it worthwhile to attempt to develop long-term relationships. In these circumstances, the legislator would prefer "strategic ambiguity." A legislator then maximizes contributions by playing one side off against the other and collecting contributions from rival groups or by selling his vote to the highest bidder on a period-by-period basis. Other factors such as the power and policy-expertise of the legislator as well as a politician's demand for funding may also affect contribution patterns. We now turn to consider the empirical implications of the reputational development approach and alternatives.[7]

B. Implications of the Reputational-development Hypothesis for Campaign Contributions Patterns

The approach outlined above suggests that the frequency of PACs that continue to contribute to the same legislator over multiple electoral cycles provides a proxy for the extent of reputational development.[8] We now describe three implications about how this variable evolves under the reputational development hypothesis and, in the next section, consider alternative explanations.

First, the frequency of repeat giving should increase with a legislator's seniority. This implication follows because it takes time for interest groups to learn whether a legislator will consistently uphold a position which favors one group over another. In other words, the variance of the estimate of

[6] A change in the probability of reelection also can be interpreted as a change in the discount factor.

[7] A specific application to our proposed theory can be found in Kroszner and Stratmann (2000), which examines contributions by banking committees only (which account for less than five percent of all corporate Political Action Committees) to Banking Committee members.

[8] Below, repeat giving will be defined more precisely and alternative measures of clarity and consistency will be explored.

the location of the legislator along a relevant dimension of policy space should decline with more observations of the legislator's actions related to that dimension, that is, with time on a particular committee assignment. As the variance declines, the favored interest groups continue to contribute to the legislator in order to induce him to continue to spend time working in their favor or simply to try to keep a reliable legislator in Congress. The disfavored interest groups will stop contributing to that legislator. The reputation-building strategy thus implies that the percentage of PAC contributors who are repeat givers should increase with a legislator's time in Congress.[9] In particular, the percent of repeat givers should rise with a legislator's tenure on a committee if the committee structure of Congress is the mechanism that allows the repeat dealing to support reputational development.[10]

Second, the frequency of repeat giving should decrease as the probability of termination increases. The prospect for repeated interaction is an important element in achieving and sustaining a reputational . However, when the relationship the legislator and the PACs becomes more likely to end (e.g., due to an increased probability of death or retirement of the legislator), the reputation-building approach implies that the frequency of repeat giving should decline. The reputation-building hypothesis thus implies that the termination probability is inversely related to repeat giving.

Third, legislators who develop clear reputations should be rewarded with high levels of PAC contributions. As in Ghosh and Ray (1996), pay-offs to the players will be relatively low during the early stages of a long-term relationship but will increase as the players learn their partners' reliability and sustain a higher level of cooperation. Operationally, the percent of repeat PAC contributions to a legislator thus will be positively related levels of PAC contributions received by that legislator. As we describe below, we will be controlling for demand and supply factors independent of reputational development that might affect the level of a legislator's PAC contributions in an electoral cycle (e.g., how

[9] This increase should diminish after the initial learning takes place.

[10] We will also compare the effects of overall House seniority to the effects of committee seniority.

closely contested a legislator's race is and whether a legislator holds a position of institutional power such as being committee chair).[11]

C. Alternative Explanations

1) Strategic Ambiguity: As noted above, if a reputational equilibrium cannot be sustained, politicians might find it in their interest to follow some form of strategic ambiguity. The implications of strategic ambiguity differ from those described above for reputational development.

First, if a legislator is pursuing a "fence sitting" policy of strategic ambiguity, then there would be no tendency for the frequency of repeat contributions to increase with a legislator's seniority. Legislators who primarily "play one side off against another" would continue to get contributions from the rival groups year after year. Repeat giving thus would not rise with tenure on the committee. Indeed, after contributing to such a legislator initially, some PACs would not find it worthwhile to continue the relationship with such a legislator, so repeat giving would tend to decline over time. An "all things to all people" ambiguity strategy also implies a decline in repeat giving through time as the legislator cast his net more widely and moves from issue to issue.

Second, when the players are optimizing period-by-period, the length of the horizon of future play should not have any impact on their actions. Accordingly, the probability of termination thus would not be related to the frequency of repeat contributions by the PACs to those legislators.[12]

Third, if strategic ambiguity is the best strategy, total PAC contributions to a legislator would decrease, rather than increase, with reputational clarity. "Fence sitting" on more issues would be the path

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[11] In Kroszner and Stratmann (1998), we examined the contributions from rival financial services PACs to members of the House Banking Committee and found that the concentration of such contributions rises with the length of time that a legislator serves on this committee. Here we study contributions from all corporate PACs to all legislators in the House and use a different measure of reputational development (namely, repeat giving) to investigate whether this results in higher contributions as well as alternative hypotheses about the roles of ambiguity, power, and policy expertise.

[12] Stratmann (1995 and 1998) suggests that PACs use the timing of contributions within an electoral cycle to prevent reneging on "money-for-votes" exchanges by legislators.

to greater contributions, so the frequency of repeat giving would be inversely related levels of PAC contributions.

2) Policy Expertise: Legislators may be developing expertise in particular policy areas over time (e.g., Gilligan and Krehbiel 1989, Krehbiel 1991). If so, it is possible that groups particularly interested in the issues that a legislator has chosen to work on will repeated give to that legislator.

The expertise-development alternative thus shares the first implication with the reputational-development hypothesis, namely that repeat giving would rise with seniority on the committee. Expertise-building, however, would not predict a reduction in repeat giving as the probability of termination rises. In addition, when we examine the third implication concerning the relationship between repeat giving and the level of PAC contributions, we will include committee seniority as an explanatory variable. Thus, we will be able to examine the effect of repeat giving -- our proxy for reputational development – holding constant time on a committee to develop policy expertise.

3) Institutional Power: Some legislators are more politically powerful than others within the legislature, and power could affect contribution patterns (Ansolabehere and Snyder 1999). We will include two measures of institutional power in our empirical work: party leadership positions and committee chairs. Since such legislators tend to be among the most senior, it will be important to control for institutional power when estimating the effects of seniority on repeat giving.

Concerning the first implication considered above, the relationship between institutional power and repeat giving is unclear. The most powerful legislators might demand high loyalty among givers and have the power to retaliate against those groups that do not repeat (e.g., McChesney 1997), so power and repeat giving could be positively correlated. Alternatively, as a legislator becomes more powerful over time, more PACs might want (or feel obligated) to contribute to the legislator over time, potentially reducing the fraction of a legislator's PAC contributors that are repeat givers. Concerning the second implication, the power hypothesis does not predict that repeat giving will decline with probability of

termination. Power, however, may simply manifest itself in terms of a higher level of contributions and not have any direct effect on repeat giving, so it will be important to include proxies for institutional power in our estimation of the impact of repeat giving on the level of contributions.

4) Demand for Contributions: A legislator's demand for PAC money may affect the pattern and level of contributions that a legislator receives. In the empirical work, we control for two factors that are related to a legislator's demand for contributions, namely challenger strength and the legislator's winning percentage in the previous election.

III. Data

A. PAC Contributions and Repeat Giving

Special interests sponsor political action committees (PACs) that must disclose their contributions to the Federal Election Commission (FEC). Corporations, for example, cannot legally give money directly to a candidate for federal office and must give through PACs. For each two-year House election cycle, the FEC produces a file which identifies the contributing PAC, the recipient, and the dollar amount. The FEC classifies the PACs into broad categories based on the nature of the sponsoring organizations, and our focus is on corporate PACs.[13]

Our contribution data consist of corporate PAC contributions to legislators in the U.S. House of Representatives during the seven election cycles from 1983/84 to 1995/96. The contribution data are expressed in real 1995 dollars. The measure of reputational development we use is the percent of repeat contributors to a legislator (see Snyder 1992 and McCarty and Rothenberg 1996). A repeat contributor is defined as an individual PAC that gives to a legislator in the previous (*t-1*) and current (*t*) periods. The

[13] We also have analyzed the PACs sponsored by trade associations, most of which represent particular industries or professions. A similar reputation-building mechanism through the committees should operate for the trade association PACs as for the corporate PACs. There are 899 trade association PACs and their average contribution level per legislator is similar to that of the corporate PACs. The results for the trade association PACs are the similar to the results for the corporate PACs that we report below.

percent of repeat contributors is the number of repeat contributors divided by the average number of PACs that give to the legislator in the previous and current periods (that is, the sum of the number of contributors in periods *t-1* and *t* divided by two), multiplied by 100. As an alternative measure, we also calculated the percent of repeat givers using only the number of PACs giving in the previous (*t-1*) period in the denominator. This alternative is highly correlated with the "average" measure. The results are the same regardless of which measure we use, so we report the results below using only the "average" measure described above.[14] A legislator must be in the House for two consecutive terms to be able to calculate repeat giving.[15] We have 2,074 legislator-cycle observations of incumbents running for reelection, and 1,209 corporate PAC contributors in the sample.[16]

B. Committees and Seniority [17]

First, since some committees may be more productive at reputation building than others, we include controls for committee memberships.[18] All specifications thus include a set of indicator variables that are one if the legislator is a member of a particular committee in a particular electoral cycle and zero otherwise.

Second, we include an indicator variable that is one if the legislator is the chair of the committee during a particular electoral cycle and zero otherwise. This variable provides a proxy for the power and privileges that committee chair may exercise, e.g., agenda control (see Ansolabehere and Snyder 1999).

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[14] The results with the alternative measure are available upon request.

[15] To calculate repeat giving for the first cycle in our sample (that is, 1983/84), we collected data on PAC giving from 1981/82 for legislators who were in the House during both 1981/82 and 1983/84.

[16] Since legislators who do not run for reelection receive virtually no PAC contributions, we include only incumbents who do run. Also, a legislator is included only if he receives at least $10,000 of total corporate contributions in an electoral cycle. We lose roughly 150 observations due to this restriction.

[17] The *Congressional Quarterly Almanac* (various issues) is the source for the for the legislators characteristics, unless otherwise noted.

[18] Also, members with different propensities to build reputations may select to be on different committees.

Third, we include the seniority of the legislator, since the competing interests may treat newer legislators with little reputational development differently than their more senior counterparts. Seniority is our proxy for the extent of repeat dealing, hence opportunities for reputation building, that a legislator has been able to undertake with the PACs.

We measure seniority in a number of ways. First, overall House seniority is the number of election cycles during which each legislator has been in the House. While this variable captures opportunities for showing reliability generally and may be related to a legislator's overall power and productivity in the House hierarchy, the reputation-building approach described above focuses on the role of the committees. Legislators in the House typically sit on one or two standing committees during a session of Congress and the maximum we observe in our data is four.[19] Average committee seniority is sum of the number of electoral cycles during which the legislator has been a member of each of his current committee assignments divided by the total number of assignments. We also calculate the maximum (minimum) committee seniority of a legislator as the number of electoral cycles that a legislator has been on his longest (shortest) committee assignment. We take the log of each of these measures because the information gained by the PACs from repeat dealing with a legislator should diminish over time.

C. Other Legislator and Constituency Characteristics

To control for other factors that may influence the pattern of PAC giving and to address alternative hypotheses, we will also include the following legislator characteristics in our specifications (e.g., Poole, Romer, and Rosenthal 1987):

Winning Percent: The percent of the vote won by the legislator in the previous election provides information about how secure a legislator is and can affect both the supply of and demand for campaign

[19] The Democratic and Republican party caucuses have rules concerning how many and what type of committees a legislator may be on simultaneously. Members of "elite" committees (Appropriations, Rules, Ways and Means), for example, generally cannot also be members of other standing committees. For the details of the rules, see *CQ Guide to Congress* (1991).

contributions. Security of the seat has two offsetting effects. On the one hand, PACs may be more willing to develop relationships with and make higher contributions to, more secure legislators. On the other, an extra dollar of contributions may be less valuable to incumbents who have little worry about fending off challengers in the next election, so they may expend less effort in working for special interests and developing reputations. Conversely, legislators in less secure seats may have a higher demand for contributions and may expend more effort to raise the funds.

Ideology: To adjust for ideological differences among legislators, we include the Poole and Rosenthal (1997) DW-Nominate spatial mapping of legislators onto a "left-right" political spectrum ranging from -1 to 1 based on their voting records, where -1 represents "liberal" and 1 represents "conservative."[20] To the extent that different industry groups may share a broad range of business interests unrelated to a particular policy controversy (e.g., be "free market" or "low tax"), we include this variable to control for general pro- or anti- business attitudes of legislators that might affect the pattern of corporate giving. In addition, we include the square of this measure since ideology may have a non-linear effect on the pattern of PAC giving, that is, extremists may have different contribution patterns than those in the middle.

Leadership Position: Legislators in party leadership positions are generally perceived as more powerful than others within the legislature. We thus include an indicator variable for leadership positions. This variable is one if the legislator is the Speaker of the House, Minority Leader, Majority Whip, or Minority Whip, and zero otherwise. [21]

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[20] We also have used the Americans for Democratic Action (ADA) index score which is calculated on a scale of 0 (conservative) to 100 (liberal) based on the voting record of the legislator during the election. The two measures are highly correlated, and the results are not affected by the choice of ideology proxy.

[21] Another aspect of power concerns membership in the party that controls the House (see Cox and Magar 1999). The members of the majority party (the Democrats in all but the last electoral cycle in our sample) might have different contribution patterns than members of the minority party. As we discuss in the robustness section at the end of the results, the level of contributions is positively related to a "majority party status" indicator but does not affect any of our other results.

Challenger Expenditures: The quality and campaign resources of the challenger can affect an incumbent's demand for PAC contributions. Stronger challengers tend to lead incumbents to gather more contributions (e.g., Green and Krasno 1988 and Levitt 1994). To control for the strength of the challenger, we include the expenditures by the challenger in the current period, e.g., challenger expenditures in the 1992 campaign will used to explain repeat giving and incumbent PAC contributions in the 1991/92 electoral cycle. Challenger expenditures are highly correlated with proxies for challenger quality but more straightforward to measure.[22] Including it as an independent variable, however, raises simultaneity issues. We are not interested here in measuring the impact of challenger contributions *per se* but rather in controlling for its effects on the incumbent's behavior that can affect his contribution patterns. The simultaneity bias will affect the coefficient estimates on our variables of interest (primarily seniority and repeat giving) only to the extent that they are correlated with challenger contributions. In the results tables, we report specifications with and without challenger contributions, but its inclusion does not affect the coefficient estimates for our variables of interest.

In most of the specifications reported below, we include fixed effects for each legislator to control for unobserved characteristics of the legislator that might influence the pattern of PAC giving. When we do not, however, we include two variables that are legislator-specific but do not change over our time period as well as the probability of termination:

Party Affiliation: Since members of different parties may have different patterns of contributions, we include a variable equals one if the legislator is a Republican and zero if a Democrat.[23]

Employment of Constituents: The economic interests of the voters in a legislator's district could affect the pattern of contributions to that legislator (e.g., Stratmann 1992b and 1996). To develop a proxy

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[22] Green and Krasno (1988), for example, develop an eight-point scale to measure challenger quality and find that the correlation of this measure and challenger expenditures is 0.56.

[23] See McCarty and Rothenberg (2000) on the role of parties as partisan intermediaries that might facilitate support high contribution equilibrium.

for constituency interest, we collect data on the share of employment by district in each two-digit SIC industry. The *County Business Patterns* survey from the Bureau of the Census provides county-level employment data which we then map into legislative districts. Redistricting occurs after the 1991/92 electoral cycle. The data are from 1986 for the cycles prior to redistricting and from 1995 for the cycles after redistricting.[24] Including the employment share variables thus is similar to including district fixed effects.

Probability of Termination: Finally, we develop a measure of the probability of termination for the legislator. To do so, we estimate a first-stage probit regression where the dependent variable is one in the last electoral cycle that a legislator running for reelection is in the House and zero in other periods. The independent variables are the legislator characteristics listed above plus the legislator's age as an instrument. The probability of retirement or death should be an increasing function of the legislator's age, but age should have no impact on the frequency of repeat givers or the level of PAC contributions, independent of its effect on the probability of termination. In the next section, we will describe the exact specification of the probit. Appendix 3 contains the sample statistics of variables not reported in the Tables.

IV. Methods and Results

A. Seniority and Repeat Giving

We first examine the relation between seniority and repeat giving for each legislator in the House from the 1983/84 to 1995/96 election cycles. Table 1 reports simple correlations and sample statistics for the key variables of interest. The log of maximum, minimum, and average committee seniority for each legislator have correlation coefficients with each other of at least 0.75. The log of overall House seniority

[24] Note that none of our results change if we confine the data to the five electoral cycles prior to redistricting.

also is highly correlated with each of our measures of committee seniority.

Consistent with reputation-building, the correlations of seniority and our proxy for reputational development are positive and statistically significant. Figure 1 plots the percent of repeat contributors for levels of average committee seniority, and illustrates that repeat giving rises steadily from committee seniority of 2 through 5 electoral cycles.[25]

To investigate these results in more detail, we pool the cross-sectional data for each cycle over time to create a panel data set consisting of observations of legislators in the House each electoral cycle from 1983/84 to 1995/96. The dependent variable proxying for reputational development of legslator *i* in period *t* is the percent of repeat PAC givers to that legislator ($REPEAT_{it}$). We use a log-linear specification of seniority because the effect of seniority on the percent of repeat givers should diminish with seniority under the reputation-building hypothesis.

To control for legislators that might have relatively high or low repeat giving throughout their legislative careers, we estimate a fixed-effects regression by including a separate intercept for each legislator (a_i). We also include legislator characteristics (X_{it}) to control explicitly for factors that might affect contribution patterns. All regressions include indicators variables for the each legislator's committee membership(s) since different committees may be associated with different levels of repeat giving, but we do not report the estimates on these variables. Finally, we include time indicators (T_t) to control for differences between election cycles. For each observation of legislator *i* in election cycle *t*, we estimate an equation of the form:

$$REPEAT_{it} = a_i + b\ log(Seniority)_{it} + c\ X_{it} + d\ T_t + e_{it}.$$

[25] Note that there is no seniority=1 category because a legislator must be in the House for two consecutive terms in order to calculate percent repeat givers. Also, since there are relatively few observations in each category of average committee seniority greater than or equal to 6, Figure 1 groups all of these observations in the seniority=6 category. The difference in the percent of repeat giving from committee seniority of 3 or fewer electoral cycles to seniority greater than 3 electoral cycles is statistically significant (t=6.05).

Table 2 reports the coefficient estimates and robust standard errors.[26] Column (i) includes average committee seniority and the coefficient is positive and highly statistically significant. Column (ii) includes overall House seniority which also has a positive and statistically significant effect. When we include both time on the committee (which is the mechanism we emphasize in our model of reputational development) and time in the House (which is a proxy for general legislator experience and productivity) in column (iii), average committee seniority drives out the effect of overall House seniority. The coefficient on average committee seniority is little changed from column (i) and remains highly statistically significant, whereas the coefficient on overall House seniority falls and is no longer statistically significant. In addition, when we include challenger contributions as a control for an incumbent's demand for contributions in column (iv), our results are unchanged. The results on committee seniority are also robust to controlling for the probability of termination (columns v and vi), as we describe in the next section.[27]

Turning to the implications of the "power" hypotheses, we find that the coefficients on the committee chair indicator and the leadership indicator are not statistically significant in columns (i) to (iv). Neither these proxies for the institutional power of a legislator nor the proxy for overall legislator experience appears to be related to the percent of repeat contributors to that legislator when committee tenure is taken into account. The results on repeat giving support the first implication of our reputation-building model: a legislator develops reputation through repeat dealing with PACs through his committee

[26] Since the dependent variable is limited to the zero to 100 range, heteroskedasticity could affect the estimation of the standard errors (see Greene 1997). The White (1980) robust standard errors we use correct for heteroskedasticity. As an alternative method to address this issue, we used the logistic transformation of the dependent variable and the results were unchanged.

[27] We also considered a piecewise linear specification of the seniority effect. We create three variables: Average Committee Seniority (i) less than or equal to 2 cycles, (ii) between 2 and 3 cycles, and (iii) between 3 and 4 cycles. The "left out category" is Average Committee Senior greater than 4 cycles. Much as in Figure 1, the impact of committee seniority on repeat giving is strongest in the second and third cycles and flattens after that. In particular, when we reran equation (i) of Table 2 using the piecewise linear specification, the coefficient on Average Committee Seniority less than or equal to2 cycles is -9.12 (t=-6.64), for between 2 and 3 cycles is -1.49 (t=-2.27), and for between 3 and 4 cycles is -0.11 (t=-0.13).

membership activities.

Robustness

We perform two robustness checks on our results to bolster our interpretation of repeat giving as a reasonable proxy for the extent of a legislator's reputational development. First, we consider a broad measure of a legislator's ideological position as an alternative measure for the clarity and consistency of a legislator's behavior. A legislator with little change in a measure of his ideology over time, for example, would be showing greater ideological consistency and reliability than a legislator whose measure of ideology jumps between election cycles. Specifically, we calculate the absolute difference in a legislator's adjusted-ADA score from one election cycle to the next and examine how this alternative is related to repeat giving.[28]

Consistent with our interpretation of repeat giving as a proxy for reputational clarity, this change in the legislator's adjusted-ADA score is negatively correlated with repeat giving, that is, the greater is the change in a legislator's ADA score from one cycle to the next, the lower is the amount of repeat giving. When we substitute the change in a legislator's adjusted-ADA score for repeat giving in the regressions in Table 2 (not reported here), the Log of House Seniority has a negative and statistically significant coefficient. The coefficient on the Log of Average Committee Seniority is negative but small and not statistically significant. The ADA score is based on a set of House floor votes on issues that may be important overall (e.g., abortion), but voting on those issues may not be particularly relevant to the specific corporate PAC interests related to the committees on which the legislator sits. The impact of overall House Seniority in the ADA regressions is thus consistent with general reputation-building by legislators on high-profile "ideological" issues (see Stratmann 2000), in contrast to the specific-issue reputation-building of interest to corporate PACs.

[28] If we instead calculate the standard deviation or coefficient of variation of the adjusted-ADA score, then we have only one observation per legislator so cannot follow the evolution of the legislator-PAC relationship over time.

As a second robustness check for our interpretation, we investigate whether the fixed legislator effects coefficients in Table 2 follow a reasonable pattern when correlated with alternative measures of legislator clarity and consistency. The adjusted-R2 for the specifications that include fixed effects (the first four columns) is much higher than in the specifications without the fixed effects (the last two columns), so there appears to be an important legislator-specific but time-invariant component that explains repeat giving. Our approach would suggest that this component would be related to the legislator's propensity for reputational development. As further measures of legislator clarity and consistency, we calculate the variance of the legislator's adjusted-ADA score as well as the sum of the absolute differences in adjusted-ADA scores from one election cycle to the next (since that follows from the measure we describe above).

We find that both measures are negatively correlated with the fixed effects coefficients, that is, legislators with higher fixed effects coefficients in the repeat giving equation (calculated from the first column of Table 2) have lower variability of their adjusted-ADA scores. These robustness checks reinforce our interpretation of repeat giving as a measure of the legislator's clarity and consistency.

B. Effects of the Probability of Termination

The second implication of the reputation-building theory is that the reputational equilibrium is more likely to break down when the probability of future dealing declines. As noted above, we estimate a probit model where the dependent variable is one for the last electoral cycle that a legislator running for reelection is in the House. We then add the predicted value from the probit to the REPEAT regression to determine how the probability of termination affects repeat giving.

To identify the first stage, we use the legislator's age as an instrument. Appendix 1 reports the probability that a legislator will leave the House during our sample period based on the age of the legislator. Since the probability of retirement or death is roughly flat until age 60 and then increases, we

include a piecewise linear specification age where the "knot" or break-point is at 60 years of age.[29] We thus include two age variables: The first is simply age in years and the second equals age minus 60 if age is greater than 60 and zero otherwise (see Greene 1997, p. 390).[30] Including age with the legislator fixed effects and time effects, however, creates a collinearity problem. In addition, a large proportion of the Representatives are in the House for the entire sample period, so the legislator fixed effect is highly correlated with no termination, causing convergence problems for the probit estimation. For these reasons, we do not include legislator fixed effects in these models. Instead, we include the shares of each legislator's district employment in each two-digit SIC industry and the party affiliation indicator (1 if Republican) and retain the time effects. Appendix 2 contains the probit estimates, with and without challenger contributions.

Columns (v) and (vi) in Table 2 include the predicted probability of termination derived from the predicted values from the probit.[31] The coefficient on average committee seniority remains positive and statistically significant, and its magnitude is little changed. The coefficient on the predicted probability of termination is negative and statistically significant. An increase in the probability of termination of PAC-legislator exchange thus leads to a decline in the frequency of repeat contributions to the legislator. Neither the expertise-building hypothesis nor the power hypothesis would predict any such relationship between probability of termination and repeat giving. The results are consistent with the second implication of the theory that legislators try to develop clear reputations on issues relevant to corporate

[29] We also used age and age squared and obtained very similar results.

[30] As an additional instrument, we also tried the number of congressional districts in the state, because Representatives from small states may be more likely than those from large states to leave the House and pursue others offices or another political career (see Snyder 1992). This variable, however, is not statistically significant in the probit and does not help to improve the prediction of the probability of termination.

[31] The probability estimate is from the normal distribution implied by the predicted value from the probit. We also used the predicted probit index value directly, and the results are unchanged.

PACs rather than try to be ambiguous.[32]

C. The Effects of Reputation on the Level of Contributions

The third implication of the reputation model concerns the best strategy to increase the level of contributions. We first consider the simple correlation of total corporate PAC contributions and repeat giving. Figure 2 shows that the level of contributions increases with repeat giving. The correlation is 0.28 with a *p*-value less than 0.01.[33] Since we have argued above that repeat giving increases with clarity, this finding suggests that reputational clarity pays.

Next, we investigate the relationship between total PAC contributions (CONTRIBUTIONS) and repeat giving more formally. In Table 3, CONTRIBUTIONS is the dependent variable and REPEAT and controls such as those from Table 2 as independent variables. A simple OLS specification, however, might involve simultaneous equations bias because the factors that predict CONTRIBUTION also may predict REPEAT. To account for the potential simultaneity, we use a two-stage least squares estimation procedure. The first stage regression estimates REPEAT based on the controls we include in Table 2 and an instrument. The second stage regression then includes the predicted or fitted value of REPEAT as an independent variable in addition to the controls to estimate how repeat giving affects a legislator's level of total corporate PAC funding.[34]

Our instrument is the rank of the percent of repeat PAC contributors (see Koenker and Bassett

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[32] When we drop the legislator fixed effects in columns (v) and (vi), the coefficient on the chair indicator switches sign and becomes negative and statistically significant. The coefficient on the leadership indicator also becomes negative but is not statistically significant. This suggests that legislators with greater institutional power (not adjusting for a legislator's unobserved ability and preferences that are unchanging over time) have lower repeat giving than other legislators, so there is no evidence that repeat giving is positively related to power.

[33] We also formally tested for a correlation conditioning on the variables included in Table 2 using a Seemingly Unrelated Regression approach (Zellner 1962, Breusch and Pagan 1980, and Greene 1997), and the Breusch-Pagan test [$\chi^2(1)$] shows that the positive correlation is statistically significant (see Kroszner and Stratmann 2000 for more details).

[34] We also ran simple OLS specifications using the actual repeat giving percent as a independent variable. The magnitudes and levels of statistical significance are very similar to those in reported in Table 3 below.

1978 and Evans and Kessides 1993).[35] To calculate the rank, we order REPEAT from lowest to highest and divide the sample into three groups: The lowest third receives a rank of one, the middle third a rank of two, and the top third a rank of three. By construction, the rank is positively correlated with the percent of repeat givers. A valid instrument also must be independent of the disturbance term in the second stage, that is, no omitted factor should be causing changes in both the rank and the level of contributions. For observations that are not near the cross-over points between the ranks, this condition will hold. For observations close to the cross-over points, however, this condition may be violated, so we choose a small number of ranks to reduce likelihood of such a correlation.[36]

The second stage regressions we report in Table 3 are of the form:

$$CONTRIBUTION_{it} = \alpha_i + \beta\,(Predicted\ REPEAT)_{it} + \gamma\, log(Seniority)_{it} + \delta X_{it} + \zeta T_t + \epsilon_{it}.$$

where the X_{it} are the same control variables as we include in the REPEAT regressions Table 2. The first two columns of Table 3 include fixed effects α_i. The last two columns instead include the constituency employment variables, the party affiliation indicator, and the predicted probability of termination, as do the last two columns of Table 2. Columns (ii) and (iv) include the amount of the contemporaneous challenger's campaign contributions.

In all specifications, a greater percent of repeat givers is associated with a higher level of corporate PAC contributions.[37] The coefficient estimates are highly statistically significantly. The

[35] The use of the rank to address the endogeneity issue was first suggested by Wald (1940) in the context of measurement errors. He showed that this procedure produces consistent point estimates.

[36] Following Evans and Kessides (1990), as an informal check of the orthogonality condition, we run the first-stage regression of percent of repeat givers on the control variables and the instrument and then rank the *predicted* values of REPEAT into the high, medium, and low groups. If the correlation between the disturbance term and the percent of repeat givers does not change the rank, then the ranks of the predicted percent of repeat givers should be almost the same as the actual ranks based on the levels of contributions. In our sample, the fraction of predicted ranks that equal actual ranks is 0.97. While we do not have a formal test statistic, the close correspondence between the actual and predicted ranks provides support for the orthogonality assumption.

[37] We tested for the stability of the coefficients over time (see Grier and Munger 1993) and found no evidence of instability.

magnitude of the estimates imply that a one standard deviation increase in the percent of repeat giving would result in an increase in the dollar value of contributions between roughly $3,500 and $13,000, or between roughly 5 percent and 20 percent of the mean level of contributions. These results are consistent with higher PAC contributions being a reward for reputation-building.[38]

D. Alternative Hypotheses and Robustness

Each specification of the PAC contribution equation includes committee seniority, so the effects of repeat giving are estimated holding constant seniority. Under the alternative hypothesis of expertise-building rather than reputation-building, higher levels of contributions would be the rewards for greater expertise, as proxied by seniority, not for greater reputation, as proxied by repeat giving. The coefficients on committee seniority are not statistically significant in the fixed effects regressions, but they are statistically significant and positive in the specifications without the fixed effects. These results thus provide mixed support for the expertise-building hypothesis.

Each specification also includes the committee chair and leadership positions indicators, so the effects of repeat giving are estimated holding constant the proxies for institutional power. The coefficients on the committee chair and leadership position indicators are positive and statistically significant in all specifications. The more powerful legislators thus can raise more PAC money than their less powerful brethren in the House (see Ansolabehere and Snyder 1999). In addition, since there may be a concern that seniority could be another proxy for a legislator's power, we control for seniority in the PAC contribution regressions and thereby isolate the independent effect of repeat giving on the level of contributions.

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[38] Our empirical work has focused on corporate contributions. Even though corporate PAC contributions are much larger than contributions from labor PACs , pro-labor legislators may be willing to forego corporate contributions to maximize contributions from labor. To ensure our results are not being driven by confounding effects from labor, we reran the regressions in Table 3 dropping legislators that receive contributions (above the $10,000 cut-off we also use for corporate PACs) from labor PACs. The number of observations is reduced to 767 but the results are unchanged: the magnitude and statistical significance of the coefficient on the percent of repeat contributors is nearly identical to that reported in Table 3. Thus, for those legislators who are not in the market for labor PAC contributions the same pattern emerges.

To control for another aspect of power that could affect contribution patterns, we include an indicator for whether the legislator was a member of the majority party in the House (but do not report the results Table 3). When we include a "majority party status" indicator that is one in each period for which a legislator is in the majority party and zero otherwise, this variable is positive and statistically significant. Consistent with Cox and Magar (1999), there appears to be a fund-raising benefit for members of the party controlling the House. The inclusion of this variable, however, has no effect on the other estimates, except for party affiliation which becomes statistically insignificant.[39]

The strength of the challenger, as measured by the amount of his contributions, is related to higher contributions by the incumbent. Given the simultaneity problems associated with this variable, one must be cautious in interpreting the coefficient (see Jacobson 1980, Green and Krasno 1988 and Levitt 1994). Including this proxy for demand for contributions by the incumbent in columns (ii) and (iv), however, has almost no effect on the magnitudes or levels of statistical significance of the other variables.[40] The coefficient on the legislator's percent of the vote in the previous election is negative but statistically significant in only the specifications without fixed effects.

Although the level of PAC contributions may be affected by expertise-building, institutional power, and the responses of an incumbent to a strong challenger, the positive relationship between repeat giving and the level of PAC contributions is robust to the inclusion of proxies for these other factors.

V. Conclusion

[39] The Democrats control the House in all but the last electoral cycle in our sample. Our results are unchanged if we simply drop the observations from 1995/96.

[40] While not central to our analysis, the coefficients on the winning percent and ideology variables increase in statistical significance and change in magnitude in the specifications without the legislator fixed effects (in columns iii and iv). This is likely due to a high correlation of these variables with the legislator fixed effects (due to their relatively low time-series variation). When the fixed effects are excluded, the variables proxy for the fixed legislator characteristics. Also, the predicted probability of termination is negatively related to the level of PAC contributions, consistent with a breakdown of the repeat-dealing equilibrium.

This paper addresses a long-standing theoretical controversy about whether legislators prefer to develop clear reputations concerning their policy positions. We develop a theory that allows us to distinguish between the reputation-building and alternative hypotheses by examining the pattern of interest group campaign contributions to legislators. The committee system of Congress offers the potential for repeated interactions, reputation-building, and long-term relationships between the interest groups and members of the relevant committees. As the length service on a committee grows, a legislator has more opportunities, if he so chooses, to reduce uncertainty about his policy stances. The percent of repeat givers to a legislator provides a proxy for the extent of reputational development.

We find that the percent of repeat givers to a legislator increases with seniority on his committee assignments. These results support a model in which legislators use their committee memberships as ways to engage in repeat dealing with special interest groups and thereby develop reputations for reliability in supporting particular policy positions. The percent of repeat givers declines when the probability of termination of the legislator-PAC relationship rises. In other words, when a legislator is likely to leave office, the reputation-building appears to break down. Finally, the level of PAC contributions increases as the legislator clarifies his reputation, so reputational clarity appears to "pay." This evidence is inconsistent with the strategic ambiguity hypothesis that legislators maximize their PAC contributions by "fence sitting" in their policy stances to try to garner contributions from all sides on an issue or auction off their votes to the highest bidder on a case-by-case basis. We also consider institutional power and expertise-building as alternative explanations, but find that the data best fit a model in which legislators develop reputations over time and high reputational development is rewarded with high PAC contributions.

Our results have implications for campaign finance and legislative reform proposals. Substituting public funding for private contributions, for example, would weaken the incentives for legislators to develop consistent policy positions on issues relevant to well-organized and well-financed PACs. Very

low limits on PAC contributions would have a similar effect. In addition, term limits or weakening of the committee system of Congress (e.g., through term limits on committee assignments) would make it much less likely for a reputational equilibrium to be sustained in the PAC-legislator market (e.g., Kroszner and Stratmann 1997 and 1998).

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TABLE 1: Correlation and Sample Statistics for Alternative Measures of Seniority and the Percent of Repeat PAC Contributors between 1983 and 1996. (p-values below the Pearson correlation coefficient.) N = 2,074.

	Correlation Analysis				*Sample Statistics*
	Log Average Committee Seniority	Log Maximum Committee Seniority	Log Minimum Committee Seniority	Log Overall House Seniority	Mean [Std Dev]
Log Average Committee Seniority, measured as the sum of the number of terms on each of a legislator's assignments divided by the number of assignments	-	-	-	-	1.50 [0.49]
Log Maximum Committee Seniority, measured as the number of terms on the committee on which the legislator is most senior	0.96 (<0.01)	-	-	-	1.61 [0.50]
Log Minimum Committee Seniority, measured as the number of terms on the committee on which the legislator is least senior	0.90 (<0.01)	0.75 (<0.01)	-	-	1.33 [0.55]
Log Overall House Seniority, measured as number of terms in the House	0.79 (<0.01)	0.83 (<0.01)	0.62 (<0.01)	-	1.59 [0.60]
Percent of Repeat Corporate PAC Contributors to a Legislator	0.11 (<0.01)	0.10 (<0.01)	0.10 (<0.01)	0.07 (<0.01)	61.44 [9.98]

TABLE 2: Panel Estimation relating the Percent of Repeat PAC Contributors[a] to Members of the House to the Log of their Average Committee Seniority, Overall House Seniority, and Probability of Termination for the Seven Electoral Cycles 1983/84 to 1995/96.

N = 2,074 member-years. Robust standard errors are in parentheses below coefficient estimates.

	(i)	(ii)	(iii)	(iv)	(v)	(vi)
Log of Average Committee Seniority[b]	5.566 (1.453)	-	4.526 (1.615)	5.518 (1.460)	4.369 (0.652)	4.260 (0.635)
Log of House Seniority[c]	-	4.615 (1.647)	2.471 (1.823)	-	-	-
Percent of the Vote in the Previous Election	-0.042 (0.017)	-0.046 (0.017)	-0.045 (0.017)	-0.042 (0.017)	-0.088 (0.017)	-0.082 (0.016)
Ideology Measure (Poole-Rosenthal DW-Nominate)	2.033 (8.689)	2.549 (8.676)	2.134 (8.702)	2.203 (8.689)	8.807 (2.270)	8.565 (2.241)
Ideology Measure Squared	-14.558 (14.226)	-15.306 (14.176)	-15.297 (14.246)	-14.557 (14.235)	-17.928 (3.798)	-17.755 (3.775)
Committee Chair Indicator (1 if yes)	1.983 (1.601)	2.068 (1.577)	2.152 (1.605)	1.997 (1.598)	-2.383 (1.175)	-2.316 (1.174)
Leadership Position Indicator (1 if yes)	0.387 (2.974)	-0.885 (3.044)	0.091 (2.990)	0.631 (3.029)	-1.032 (1.941)	-1.176 (1.993)
Amount of Challenger's Campaign Contributions (x 10^{-6})	-	-	-	-0.156 (0.189)	-	-0.173 (0.184)
Party Affiliation (1 if Republican)	-	-	-	-	-1.539 (1.310)	-1.562 (1.334)
Probability of Termination (predicted value from probit)[d]	-	-	-	-	-15.988 (4.511)	-14.758 (4.203)
Includes Indicators for Committee Memberships	Yes	Yes	Yes	Yes	Yes	Yes
Includes Legislator Fixed Effects	Yes	Yes	Yes	Yes	No	No
Includes Time Effects	Yes	Yes	Yes	Yes	Yes	Yes
Includes District Employment in Two-Digit SIC Industries	No	No	No	No	Yes	Yes
Adjusted-R^2	0.48	0.47	0.47	0.47	0.22	0.22

Notes to Table 2: [a] Percent of Repeat Contributors is the number of corporate PACs which give to a

legislator in periods t-1 and t divided by the average number of PACs that give to the legislator in periods t-1 and/or t, multiplied by 100.

[b] Average Committee Seniority is the sum of the number of terms on each of a legislator's committee assignments divided by the total number of committee assignments for that legislator.

[c] House Seniority is the number of terms that the legislator has been in the House.

[d] This variable is the predicted value from a probit in which the dependent variable is one in the last electoral cycle that a Representative is in the House and zero otherwise. See Appendix 2 for the probit specification.

TABLE 3: Two-Stage Least Squares Panel Estimation relating the Level of Total Corporate PAC Contributions to the Percent of Repeat Contributors for Members of the House for the Seven Electoral Cycles 1983/84 to 1995/96. Mean (Std Dev) of Total Corporate PAC Contributions, the dependent variable, is $67,615 ($49,934) in 1995 dollars. N = 2,074. Robust standard errors are in parentheses.

	(i)	(ii)	(iii)	(iv)
Predicted Value of Percent of Repeat Contributors[a]	352.28 (136.54)	359.45 (129.03)	1,299 (121.61)	1,326 (118.90)
Log of Average Committee Seniority[b]	-8,043 (7,083)	-6,589 (6,533)	10,263 (2,615)	10,351 (2,539)
Percent of the Vote in the Previous Election	-28.35 (75.67)	-18.64 (73.75)	-272.79 (74.35)	-190.60 (70.89)
Ideology Measure (Poole-Rosenthal DW-Nominate)	-69,662 (33,134)	-74,980 (31,556)	35,920 (6,825)	33,199 (6,648)
Ideology Measure Squared	13,228 (53,172)	13,289 (51,335)	-58,205 (11,687)	-58,625 (11,600)
Committee Chair Indicator (1 if yes)	23,392 (6,936)	22,931 (6,940)	30,698 (5,851)	30,299 (5,836)
Leadership Position Indicator (1 if yes)	79,528 (26,783)	71,921 (25,115)	136,011 (15,648)	130,400 (15,385)
Amount of Challenger's Campaign Contributions (x 10^{-6})	-	4,857 (443.4)	-	5,473 (680.3)
Party Affiliation (1 if Republican)	-	-	-7,678 (3,968)	-11,578 (3,997)
Probability of Termination (predicted value from probit)[c]	-	-	-47,060 (17,036)	-46,045 (15,463)
Includes Indicators for Committee Memberships	Yes	Yes	Yes	Yes
Includes Legislator Fixed Effects	Yes	Yes	No	No
Includes Time Effects	Yes	Yes	Yes	Yes
Includes District Employment in Two-Digit SIC Industries	No	No	Yes	Yes
Adjusted-R^2	0.71	0.73	0.39	0.42

Notes to Table 3: [a] This variable is the predicted value of the percent of repeat contributors when the rank of REPEAT (high, medium, and low) is used as an instrument in the first stage.

[b] Average Committee Seniority is the sum of the number of terms on each of a legislator's committee assignments divided by the total number of committee assignments for that legislator.

[c] This variable is the predicted value from a probit in which the dependent variable is one in the last electoral cycle that a Representative is in the House and zero otherwise. See Appendix 2 for the probit specification.

APPENDIX TABLE 1 : Probability of Leaving Office by Age of Legislators in the House, for the Seven Electoral Cycles 1983/84 to 1995/96.

Age Category	Percent of Legislators in their Last Term in Office	Number of Observations
Under 40	0.11	140
40 to 49	0.17	680
50 to 59	0.16	708
60 to 69	0.21	443
70 to 79	0.31	97
Over 79	0.33	6

APPENDIX TABLE 2 : Marginal Effect Estimates from a Probit Panel Estimation of Probability of Last Term in Office[a] for Representatives in the House for the Seven Electoral Cycles 1983/84 to 1995/96. N = 2,074 member-years. Standard errors are in parentheses.

	(i)	(ii)
Log of Average Committee Seniority[b]	6.219 (2.092)	6.324 (2.107)
Percent of the Vote in the Previous Election	-0.217 (0.066)	-0.179 (0.065)
Ideology Measure (Poole-Rosenthal DW-Nominate)	11.351 (7.207)	9.380 (6.820)
Ideology Measure Squared	-24.297 (11.233)	-25.624 (10.858)
Committee Chair Indicator (1 if yes)	-7.130 (2.674)	-7.292 (2.567)
Party Affiliation (1 if Republican)	-7.174 (4.104)	-8.679 (3.928)
Age of Legislator, in years	-0.008 (0.142)	0.005 (0.140)
Age greater than 60[c]	0.956 (0.347)	0.937 (0.344)
Leadership Position Indicator (1 if yes)	-4.573 (6.719)	-7.142 (6.116)
Amount of Challenger's Campaign Contributions (x 10^{-6})	-	2.46 (0.63)
Includes Indicators for Committee Memberships	Yes	Yes
Includes Legislator Fixed Effects	No	No
Includes Time Effects	Yes	Yes
Includes District Employment in Two-Digit SIC Industries	Yes	Yes
Pseudo-R^2	0.12	0.13
Percent Correctly Classified	82%	83%

Notes to Appendix 2: [a] The dependent variable is one if the Representative is not in the House in the next

electoral cycle and zero otherwise. The mean (standard deviation) is 0.18 (0.38). Note that all coefficients in this Table are multiplied by 100.

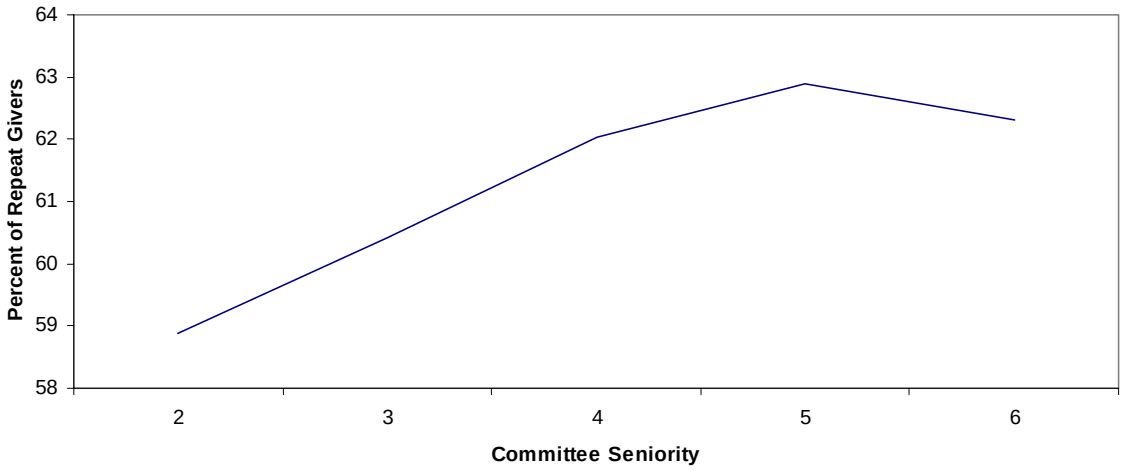
[b] Average Committee Seniority is the sum of the number of terms on each of a legislator's committee assignments divided by the total number of committee assignments for that legislator.

[c] Piecewise linear specification in which this "piece" measures the effect of age above 60. The variable is zero when age is less than 60 and is the age of the legislator minus 60 when age is greater than 60.

APPENDIX TABLE 3: Sample Statistics for Variables Used in the Regressions (but not reported in the Tables).

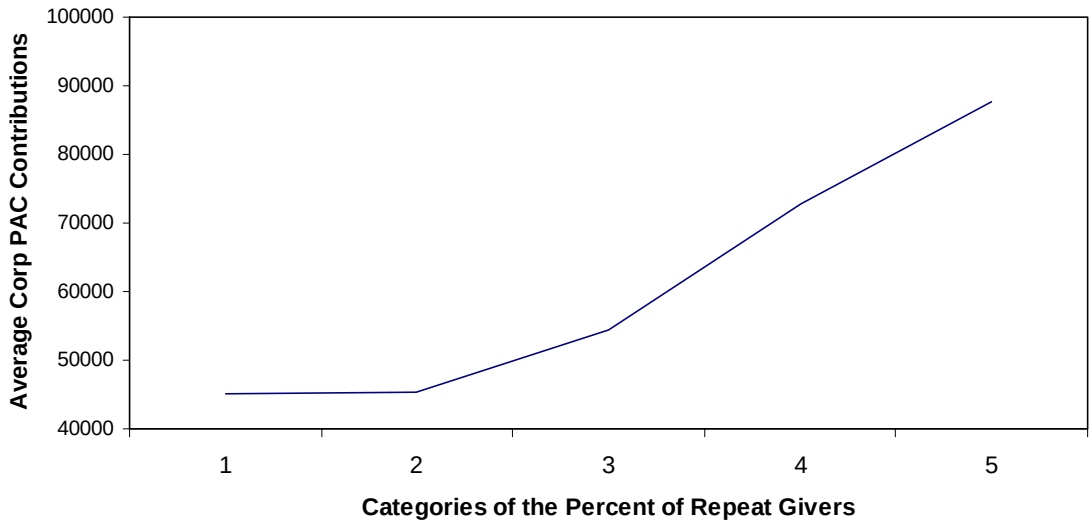
	Mean (Std Dev)
Percent of the Vote in the Previous Election	70.45 (13.98)
Party Affiliation (1 if Republican)	0.41 (0.49)
Ideology Measure (Poole-Rosenthal DW-Nominate)	-0.028 (0.328)
Committee Chair Indicator (1 if yes)	0.057 (0.233)
Leadership Position Indicator (1 if yes)	0.014 (0.115)
Amount of Challenger's Campaign Contributions x 10^{-6}	0.412 (1.636)
Indicator is One in Legislator's Last Term	0.18 (0.38)
Age of Legislator, in years	53.05 (9.62)
Years of Age Greater than 60	1.46 (3.46)
Predicted Probability of Legislator's Last Term from Probit in Appendix 2	0.18 (0.13)

FIGURE 1: Committee Seniority and Percent of Repeat Givers



Notes to Figure 1: Percent of Repeat Givers is the number of corporate PACs which give to a legislator in periods t-1 and t divided by the average number of PACs that give to the legislator in periods t-1 and/or t, multiplied by 100. Committee Seniority is the sum of the number of terms on each legislator's committee assignments divided by the total number of committee assignments for that legislator. Seniority=6 includes all observations of legislators with committee seniority greater than or equal to 6 terms. (There is no seniority=1 category because a legislator must be in the House for two consecutive terms in order to calculate the percent of repeat givers.) N=2,074.

FIGURE 2: Percent of Repeat Givers and Corporate PAC Contributions



Notes to Figure 2: Categories of the Percent of Repeat Givers: 1 = less than 40 percent; 2 = 40 percent to 50 percent; 3 = 50 percent to 60 percent; 4 = 60 to 70 percent; and 5 = greater than 70 percent. Average Corporate PAC Contributions are expressed in 1995 dollars. N = 2,074.