PAC Spending and Roll Call Voting in the U.S. House: An Empirical Extension

Peter Calcagno
College of Charleston

John Jackson
Auburn University

Abstract

This paper expands the investigation of how PAC spending affects the roll call voting behavior to the U.S. House of Representatives. Using a theoretical framework which draws on the voting literature, we develop two models that explain Representatives' voting behavior in a pre-PAC and post-PAC world. We find weak support for a Downsian view of voting participation in the first model, and strong support for the alteration of voting incentives resulting from PAC spending in the second model. These results are consistent with earlier findings that investigate Senate behavior.

1. Introduction

Political economists have long been examining the rationality of voting (Bowen 1943, Downs 1957, Black 1958, Riker and Odershook 1968, Barzel and Silverberg 1973, Tollison and Willet 1973, Plott and Levine 1978). The literature has also addressed numerous issues related to the role of political action committees (PACs) regarding voter turnout, roll call voting, candidate ideology, campaign financing, political accountability, and policy outcomes (Stratmann 1991, 1992, 1998, 2002, Kau and Rubin 1979, 1993, Poole and Rosenthal 1997, Grier and Munger 1991, 1993, and Wilhite 1988). However, little research has addressed the effect of PAC contributions on the voting participation of Congress. Calcagno and Jackson (1998) find that PACs directly influence the voting participation of U.S. Senators. Cohen and Noll (1991), Rothenberg and Sanders (1999), and Forgette and Sala (1999) address abstention in congressional roll call voting, but not overall voting participation.

2. Background and Theory

Voting in Congress occurs in one of three ways: voice, division, or roll call. However, vote totals are announced only in the case of roll call voting; the others report only the outcome of the vote. The House as a legislative body has different constraints placed upon their voting behavior than do constituents in electing representatives. Representatives frequently may vote on a particular motion or legislation on more than one occasion. Furthermore, the institutional arrangements of the House of Representatives are different from those in the Senate in several ways, including, number of seats held per state, constituent size, length of terms, committee structure, and number of members. McGarrity and Sutter (2000) argue that PACs are trying to buy long term access to the Representatives. Their conclusion provides additional motivation for testing the relationships between PACs and House roll call votes. Calcagno and Jackson (1998) find evidence that increasing support from PACs increases voting participation in the Senate. Given the institutional differences, noted above, between the Senate and House, it is interesting to assess whether the empirical relationships obtained for the Senate hold for the House as well.

PACs became legal in 1974 when Congress amended the Federal Elections Campaign Act (FECA).[1] The relation between voting participation and PAC spending has been shown to be endogenous (Kau and Rubin 1979, Wilhite and Paul 1989, Wilhite 1988, and Dow and Endersby 1994). We argue that the more money PACs spend, the more incentives exist for a Representative to participate in roll call voting to capture a share of the rents. At the same time, if a Representative is consistently participating in roll call votes, then PACs have an incentive to contribute to the Representative to gain their support.

According to Congressional Quarterly (1996, 1998, 2000), voting participation in both houses have been increasing since the legalization of PACs, and began setting records for voting participation in the 1990s. In the case of the Senate this increase in voting participation was attributed to narrow margins of victory in elections (Congressional Quarterly Roll Call, 1988). For members of the House, it been has argued that lack of participation in roll call will unseat a member of the House.[2]

3. Econometric model and Results

We posit an econometric model for the purpose of testing the affects of PACs on House members' participation in roll call voting. The data consists of six cross sections of the U.S. House of Representatives, three pre-PAC and three post-PAC, consisting of the 84th, 85th, and 86th sessions of Congress (1956, 1958, and 1960), and the 105th, 106th, and 107th sessions (1998, 2000, and 2002), respectively. The explanatory variables are consistent with the literature.[3] We measure a Representative's voting participation by a logistic transformation of the percent of total roll call (*percentVP*) votes in which he or she participated, $(VP_{\log} = \log\left[\dfrac{percentVP}{1-(percentVP)}\right])$. Our first model without the presence of PACs is estimated as follows:

$$VP_{log} = \beta_0 + \beta_1 Party + \beta_2 Years + \beta_3 CMT + \beta_4 Chair + \beta_5 Vote + \beta_6 IR + \beta_7 PEY + \varepsilon_t \ (1)$$

where the variables are as defined in Table 1.

[Insert Table 1 about here]

Party is a dummy variable with a one representing a Democratic Representative and zero otherwise. This represents the affect of political ideology on a Representative's voting record (Grier and Munger 1993, Poole and Rosenthal 1997, and Cooper and Young 2002). Party politics and the concomitant political machinery were major players in most elections and therefore were the driving force for voting participation prior to the creation of PACs. *Years* measures the seniority a Representative possesses, which proxies a Representative's familiarity with the voting process (Grier and Munger, 1986). Serving as a proxy for a Representative's influence and attempt at agenda control are two dummy variables committee membership (*CMT*) and committee chair (*Chair*). The model includes the vote share (*Vote*), a Representative received in the last election rather than the margin of victory to allow for the proposition that Representatives may change their voting participation in an effort to appeal to their constituency. Theory suggests that voting participation may act as a monitoring device on Representatives. Thus, we also include the percentage of incumbents that sought reelection and won in the previous election cycle (*IR*). *IR* may alternatively be interpreted as an approval rating by constituents. Finally, a dummy variable for presidential election year (*PEY*) is included with a one representing an election year and zero otherwise. In a pre-PAC world we would *a priori* expect *Vote*, *CMT,* and *Chair* to be negatively related to VP_{log}, *PEY* and *IR* to be positively related to VP_{log}, and *Party* and *Years* have an ambiguous effect.

To test for the effects of PACs on roll call voting, we must pool all the data. *PAC* is the percentage of total political contributions from PACs for the years 1998, 2000, and 2002.[4] We expect *PAC* to have a significant positive effect on Representative's voting participation. Finally, an improvement upon Calcagno and Jackson (1998) is the inclusion of an interaction term between *Chair* and *PAC* (*CHPAC*) to determine which factor may be more important in affecting voting participation. The additional variables from both models are also defined in Table 1.

We treat *PAC* as an endogenous variable, so that VP_{log} and *PAC* are simultaneously determined.[5]

$$VP_{log} = \alpha_0 + \alpha_1 Party + \alpha_2 Years + \alpha_3 CMT + \alpha_4 Chair + \alpha_5 IR + \alpha_6 PAC_H + \alpha_7 Vote + \alpha_8 PEY + \alpha_9 CHPAC + u_t \quad (2)$$

$$PAC = \chi_0 + \chi_1 Party + \chi_2 Years + \chi_3 CMT + \chi_4 VP_{log} + \chi_5 IR + \chi_6 PP + \chi_7 RPParty + \chi_8 BUS + \chi_9 Labor + \chi_{10} Ideology + v_t \quad (3)$$

The estimation of the reduced form of the system (2) and (3) gives PAC_H which is then used in the estimation of the structural equation for VP_{log}, i.e., equation (2).[6] According to Wilhite and Paul (1989), *PAC* demonstrates the relative size of PAC support, which is expected to have influence over Representatives. Our theory suggests that this variable should have a pronounced positive effect on voting participation in the House. The larger the relative size of contributions by PACs, the more Representatives will partake in roll call votes.

Adding *PAC*, in theory, should cause changes in the sign and significance of the explanatory variables due to the changes in incentives. Not voting carries with it a missed opportunity to provide favor to a special interest group. One can argue that the more seasoned the Representative the better they are at capturing these opportunities, indicating a positive relationship between VP_{log} and *Years*.[7] The sign expectation for *Party*, *CMT* and *Chair* is different in (2) than for (1). In all these cases, Representative's with party or committee influence may receive more contributions from PACs and thereby vote more. However, according to Stratmann (1992, p. 648), legislators who have little influence are most likely to receive contributions, as they have a low "supply price of effort."

The correlation between *IR* and voting participation also changes as PACs are added to the model. High *IR* could cause more PAC support and lower voting participation due to greater electoral security, or higher PAC support could bring about greater voting participation so the sign becomes ambiguous. The anticipated sign of *PEY* also changes. In a presidential election year, a Representative may be away from Washington campaigning for the party's presidential candidate, and seeking the support of PACs.

Table 2 identifies four of the seven independent variables that are statistically significant and correctly signed for equation (1). *Party* is negative and significant suggesting that the Democrats are less likely to participate in roll call votes than Republicans. *Years* is also negative and significant suggesting that seniority in the House leads to less participation, which is consistent with the findings of Cooper and Young (2002). Percent of incumbents reelected and committee chairs are both negative and significant at the .10 level.

[Insert Table 2 about here]

When *PAC* is added to the model, only the signs of *IR* and *PEY* change. The variables *Years*, *Vote*, *Chair*, and *PEY* are all statistically significant. *Years*, *Vote* and *Chair* all continue to be negative suggesting that seniority (or being closer to retirement), high vote share, and power that resides from serving on committees provide electoral security and allows for shirking that discourages voting participation. *IR* changes in sign in equation (2), which suggests that high incumbency rates are more likely to encourage voting participation after the addition of

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PACs, but not significantly. As anticipated, *PEY* discourages voting as many representatives are out trying to draw support for their presidential candidate. The variable of interest, *PAC*, is positive and significant at the .01 level suggesting that PACs provide the motivation for high voting participation. The fact that this is positive while the other variables are negative continues to give credence to the earlier findings of Parker (1989) and Calcagno and Jackson (1998) that PAC contributions and not electoral security are motivating the record voting participation rates. *Chair* is negative, but not statistically significant suggesting that, if anything, committee chairs are less likely to vote, while *PAC* is positive and significant. The interaction term is positive and significant, which suggest that committee chairs are more likely to vote the higher are their PAC contributions.

A striking difference between these results and those found for the Senate relates to voting participation of committee chairs. In Calcagno and Jackson (1998), *Chair* was dropped after some preliminary modeling due to insignificance. For the House, however, *Chair* is negative and (marginally) significant, both with and without *PAC* in the model, indicating that committee chairs who receive no PAC funding vote less often than other Representatives, *ceteris paribus*. But the Chair-PAC interaction coefficient is positive and (also, marginally) significant, indicating that if committee chairs receive PAC contributions, they vote *more often* than other Representatives, and that participation increases with the size of PAC contributions. This result demonstrates the role that PACs play in increasing voting participation of some of the most important House members.

There exists the possibility of multicollinearity in our findings. To combat this problem we run variations of equation (2) substituting only one explanatory variable in turn to test the *PAC* coefficient's sensitivity to alternative model specifications. All of the variables that are statistically significant maintain sign and significance. These results are reported in Table 3 and clearly reflect the robustness of the *PAC* effect on VP_{log}.

[Insert Table 3 about here]

4. Conclusion

Is it rational for a Representative to vote? It is the responsibility of each Representative to partake in roll call votes, but PACs have made it more advantageous. The institutional arrangements between the two houses of congress are different, but we find that the creation of PACs, by and large, did not change the overall incentives for the House (with the exception of the *Chair* effect), it merely reinforced them. Representatives benefit from participating in roll call votes by increasing the rents they can extract from PACs. To put it simply, House voting participation is increasing because of PAC contributions. This finding is consistent with theory and with the previous finding for the Senate.

Table I. Description of variables

Variable Name	Variable Description	Variable Source
VP_{log}	Log odds ratio of voting participation on House roll call votes	*Congressional Quarterly Roll Call*
Party	Political party 1 = Democrat; 0 = Republican	*Congressional Quarterly Roll Call*
Years	Number of years in the House	*Congressional Directory*
CMT	Number of committees a Representative serves on	*Congressional Directory*
Chair	Committee Chair = 1; 0 otherwise	*Congressional Directory*
Vote	Percentage of votes received in the last election	*Congressional Directory and Statistical Abstract of the United States*
IR	Percentage of incumbents reelected	*Statistical Abstract of the United States*
PAC	Percentage of total contributions from PACs between 1998–2002	*Center for Responsive Politics*
PP	Political party of the president 1 = Democrat; 0 = Republican	*Statistical Abstract of the United States*
PEY	Presidential election year =1; 0 otherwise	*Statistical Abstract of the United States*
RPParty	Representative and President are the same party =1; 0 otherwise	*Statistical Abstract of the United States*
CHPAC	Interaction variable of Chair and PAC	-

Table II. Estimates of Equations 1 and 2

Variable	Coefficient	Coefficient
Party	-.3215158 (-2.66)***	-.1877622 (-2.79)***
Years	-.0528755 (-7.20)***	-.039869 (-9.32)***
Vote	-.0254091 (-0.07)	-.7038341 (-3.30)***
IR[a]	-7.030098 (-1.42)*	2.833942 (1.15)
CMT	.0327755 (0.39)	.0265745 (0.61)
Chair[a]	-.4272082 (-1.58)*	-.331151 (-1.78)*
PEY	.2895669 (1.25)	-.1910773 (-2.06)**
PAC	-	.9551145 (3.12)***
CHPAC	-	.8772563 (1.84)*
Constant	9.888622 (2.20)**	1.256854 (0.55)
N	1278	2553
F	13.00	30.56
R^2	0.0669	0.0981
Adj R^2	0.0617	0.0949

Notes: t-statistics in parenthesis statistical significance is indicated as follows *.10, **.05, ***.01
[a] Indicates one tail test

Table III. Additional Estimates of Equation 2

Variable	Coefficient	Coefficient	Coefficient	Coefficient	Coefficient	Coefficient
Years	-.0454306 (-11.51)***	-.0451204 (-11.48)***	-.0409788 (-10.13)***	-.0442711 (-11.13)***	-.044901 (-10.77)***	-.0440044 (-10.52)***
CMT	.0363616 (0.85)	.0167108 (0.39)	.0377561 (0.88)	.0300741 (0.70)	.0392047 (0.90)	.0426761 (0.98)
PEY	-.1539273 (-2.42)***	-.1375317 (-2.16)**	-.1193844 (-1.87)*	-.2813442 (-3.21)***	-.1499572 (-2.33)**	-.1599905 (-2.47)***
PAC	1.277848 (8.86)***	1.307145 (9.09)***	1.281033 (8.92)***	.7696901 (2.74)***	1.280994 (8.87)***	1.192722 (7.86)***
Party	-	-.2858666 (-4.75)***	-	-	-	-
Vote	-	-	-.9453728 (-4.68)***	-	-	-
IR	-	-	-	4.968803 (2.11)**	-	-
Chair	-	-	-	-	-.0492081 (-0.40)	-.3780518 (-2.08)**
CHPAC	-	-	-	-	-	1.088772 (2.45)***
Constant	3.333467 (34.37)***	3.497379 (34.10)***	3.904688 (25.09)	-1.229084 (-0.57)	3.323724 (33.21)***	3.332801 (33.31)***
N	2553	2553	2553	2553	2553	2553
F	56.67	50.22	50.08	46.37	45.35	39.94

Notes: t-statistics in parenthesis statistical significance is indicated as follows *.10, **.05, ***.01

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Notes

[1] This amendment followed from the 1972 Supreme Court decision in *Pipefitters Local #52 vs the United States* see Grier and Munger (1986) for a more detailed historical account. Coates and Munger (1995), Denzau and Munger (1986), and Becker (1983) are representative of the theoretical work on special interest contributions. Works by Grier and Munger (1993, 1991, 1986), Wilhite (1988), Wilhite and Paul (1989), Parker (1989), Stratmann (1991, 1992, 1998, 2002) and, Dow and Endersby (1994) are representative of the empirical literature on the issue.

[2] Salmore and Salmore (1989), Mintz, (1996) and Rothenberg and Sanders (1999) all point to the 1984 election between McConnell and Huddleston where McConnell unseated the incumbent by focusing on his lack of participation in roll call votes as motivation for the increase in voting participation in the House.

[3] Hawaii and Alaska had not formally been adopted into the union in 1958 so the observations for that year are not available. To be consistent, these states are removed from the sample altogether. Also, observations for the state of Arkansas and Ohio are removed for the 86th Congress due to lack of election data. Three observations are removed from the 105th (New York, New Mexico, and Texas) and 106th (California, Georgia, and Louisiana) Congress and six from the 107th (Arkansas, California, Florida, Massachusetts, South Carolina, and Virginia) due to special elections that occurred limiting the availability of election data.

[4] This data is compiled from the Center for Responsive Politics web page http://www.opensecrets.org

[5] See Calcagno and Jackson (1998) for a detailed explanation of the relationships modeled in the PAC equation.

[6] Representative President Party (*RPParty*) and presidential party (*PP*) are introduced in (3) as additional variables to formulate the PAC equation in the 2SLS system. *RPParty* is a dummy variable that equals one if the Representative and the President are of the same party and zero otherwise. Representatives may attract more or less PAC contributions depending upon the degree of coalition that exists between the House and the executive branch. PP is also a dummy variable and follows the same format as *Party*. One suspects that Representatives are less likely to support bills that are favored by a president of the opposing party. Therefore, individual Representatives are more likely to vote in roll call votes when their own party holds the presidency. Which implies the party in power is likely to receive greater support from PACs. Thus, the relationship is a positive one. In addition, the percentage of PAC contributions from businesses (BUS), labor organizations (Labor), and ideological or single issue group (Ideology) are included as they reflect the total amount. We think this is an advancement over the earlier study regarding the Senate. The reduced form equation for PAC is available from the authors upon request.

[7] Year of service was found to be positive, but not significant in Calcagno and Jackson (1998).