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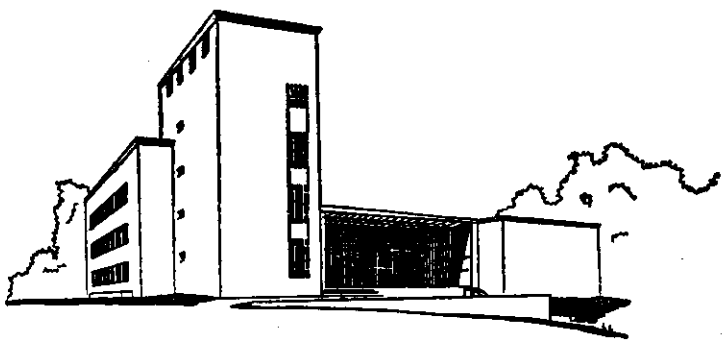

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# THE REVEALED PREFERENCES OF POLITICAL ACTION COMMITTEES

*By* Keith T. Poole, Thomas Romer, and Howard Rosenthal*

Massive campaign spending in recent Congressional elections has sparked concern with the activities of Political Action Committees (PACs), which have accounted for a large and growing share of campaign finance. Recent empirical work has examined the impact of campaign spending on electoral outcomes [Jacobson (1985)], the effect of contributions on legislative behavior [Wright (1985) provides an overview of results], and the contribution patterns of individual PACs or groups of PACs [Gopoian (1984), Poole and Romer (1985)]. While money does not guarantee election, it is most frequently the case that winners outspend losers, and that incumbents in Congressional races receive far more in campaign contributions than do their challengers. Spending is highest in races that are expected to be close, even when some account is taken of the obvious simultaneity between closeness and spending. As to the effect of contributions on voting in Congress, the results so far have been quite tenuous. There is little systematic evidence on whether votes in Congress are influenced by campaign contributions, though the journalistic presumption of influence is strong. In this paper, we look at the way PACs allocate their money, taking incumbents' voting records as given.

## I. Modeling Considerations

We focus on PAC contributions to candidates in races where an incumbent member of the House of Representatives is running for reelection. Most attempts to "explain" PAC giving as a function of many independent variables obtain results with low explanatory power. This is especially true if one

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examines spending by *individual* PACs. We believe that explanatory power will be inherently low as a result of the complicated resource allocation problem that confronts PACs. Even if one ignores Congressional primaries and other contests, PACs can choose among nearly 470 races for the House and Senate in each two-year electoral cycle. It is hardly surprising then that, in this political supermarket, a given PAC typically contributes nothing to most races. The presence of many zeros in the data renders standard regression analyses of individual PACs inappropriate.

A model of how PACs contribute should take account of the following considerations:

1. A PAC is most likely to contribute to a candidate who is expected to promote policies it favors. Generally, measuring the policy match between a PAC and an incumbent has been ignored or treated in a casual way. For example, the incumbent's rating by the Americans for Democratic Action is often used as a proxy for the PAC's evaluation of the incumbent's voting record. Using ADA rating, however, makes sense only if the ADA rating is highly correlated with the PAC's evaluation. In other cases, ad hoc vote indices are constructed by the researcher, based on a small number of roll calls that the researcher believes are of interest to the PAC. Fortunately, some organizations that sponsor PACs publish ratings of incumbents. These ratings, expressed on a scale running from 0 to 100, summarize the incumbent's voting record on legislative items that are of greatest concern to the group in each year. These ratings are clearly more appropriate than either type of external index.

It is more difficult to gauge how a PAC evaluates a challenger. In this paper, we assume that a PAC contributes to a challenger when it has a sufficiently negative evaluation of the incumbent. Challenger characteristics do not enter the model.

2. A PAC is more likely to contribute, ceteris paribus, in races that are expected to be close. At the margin, a dollar of spending is more "productive" in a close race than in one that is not highly competitive.

3. A PAC is more likely to give to someone who can be instrumental in favoring its policy goals. This consideration has led researchers to use measures of seniority and committee chairmanship. As Poole and Romer (1985) found that chairmanship was not an important predictor of contributions by aggregate groupings of PACs, we focus solely on seniority.

4. For the PAC's contribution to be influential, in terms of being recognized after the election, it should be substantial. For that reason, we would not expect to find contributions of $5.00. This consideration, coupled with resource limitations, causes most PACs to walk away from most House races. Thus it is important to model how PACs select the relatively few races where they do make a contribution.

## II. Data

We consider the 386 House races in 1980 in which an incumbent was running.[1] Of the 31 interest groups that published ratings for the 1979 session of Congress, there were 12 that operated PACs and made contributions in more than 15 of the House races. These 12 PACs are the focus of our analysis. They include seven labor PACs, two general business PACs, and three "ideological" PACs.[2]

Campaign contributions are those reported by the Federal Election Commission for the 1979-80 electoral cycle. For each incumbent, we defined net money as the difference between contributions by a given PAC to the incumbent and those to his 1980 challenger. Thus "positive" money indicates support for the incumbent, and "negative" money means support for his challenger. Contributions by a PAC to both sides in a race are extremely rare in our sample, so

net money generally indicates clear preference for one side or the other.

## III. Who Gets Money

Our approach to modeling the four factors we noted as important in PAC giving is to consider first the choice among the three alternatives of contributing to the incumbent, contributing to the challenger, and not contributing to either. We treat PACs as taking an incumbent's voting record as given, so that PACs are seen as using past voting behavior as a good predictor of future positions. The basic idea is that a PAC evaluates incumbents according to a latent interval scale $Y^*$, which of course is unobserved by us. We assume that this latent scale can be expressed as a linear function of observable characteristics X plus a random normal error, e:

$$Y^* = X\beta + e \tag{1}$$

A PAC will make a contribution to incumbent i's campaign if $Y_i^*$ exceeds a threshold value $\mu_1$. If $Y_i^*$ falls below another threshold value $\mu_0$, the PAC will contribute to the incumbent's opponent. A PAC will make no contribution in a race when $\mu_0 < Y_i^* \leq \mu_1$. Let $Z_i$ be an ordinal level variable that is equal to 1 if the PAC made net contributions to incumbent i's campaign; 0 if the PAC made no contributions in the race for i's seat; and -1 if the PAC made net contributions to i's challenger(s). Then

$$Z_i = \begin{cases} -1 & \text{if} \quad Y_i^* \leq \mu_0 \\ 0 & \text{if} \quad \mu_0 < Y_i^* \leq \mu_1 \\ 1 & \text{if} \quad Y_i^* > \mu_1 \end{cases} \tag{2}$$

We estimate the parameters of this trichotomous probit system by maximum likelihood methods [McKelvey and Zavoina (1975)]. In this model, two parameters are not identified. We follow the standard practice of setting $\sigma^2$, the variance of the disturbance term e, equal to 1, and the first threshold $\mu_0$ to 0. For each PAC, we then estimate the second threshold $\mu_1$ and the linear para-

meters $\beta$.

In defining X in equation (1), we experimented with a variety of specifications involving ratings, vote margins, and seniority. The estimates reported in Table 1 are based on the following specification of the latent variable $Y^*$:

$$Y^* = \beta_0 + \beta_1 R + \beta_2 M(R - 50) + e \qquad (3)$$

where R is the 1979 rating of the incumbent by the PAC's sponsoring group, and M = 1 if the incumbent's vote margin over his major-party opponent in 1978 was less than or equal to 25 percentage points; otherwise M = 0.

The interaction term M(R - 50) is intended to capture the notion that giving is more likely in races that are expected to be close.[3] With $\beta_2 > 0$, a highly rated incumbent in a close race has a greater probability of receiving a contribution (i.e., having the latent index be above $\mu_1$) than his equally highly rated colleague who is not expected to face any difficulty. In the case of an incumbent with a low rating (e.g., $R \approx 0$), the probability that the PAC will make a contribution to the challenger is greater if the race is expected to be close than otherwise.

Table 1 reports the estimates of the trichotomous probit model when the underlying latent variable is specified as in equation (3). The parameter $\mu_1$ is the value of the latent variable that corresponds to a PAC's decision threshold for making a contribution to the incumbent. Since $\mu_0$ is normalized to 0, the estimated t-statistic for $\mu_1$ tests whether the two thresholds $\mu_0$ and $\mu_1$ differ; i.e., whether there is an interval where not contributing to either side predominates. For all PACs, $\mu_1$ is estimated to be positive and quite distinct from zero, indicating a potentially wide range over which noncontribution is the most likely outcome.

The incumbent's rating plays an important, though somewhat complicated

role in the contribution decisions of the PACs. For all of the larger PACs (nos. 1-6 in Table 1), the probability of making a contribution to the incumbent increases significantly with the rating per se; this is true for only half of the smaller PACs (nos. 7-12). The expected closeness of the election reinforces the effect of the rating (i.e., $\beta_2$ is significantly greater than 0) in all but two cases (UAW and UMW). A highly rated incumbent is more likely to get contributions if he is in a close race. The challenger of a poorly rated incumbent is more likely to receive a contribution if the contest is expected to be close.

We can use the estimated parameters to get a sense of the impact of being in a close race. For example, consider the NFIB PAC (National Federation of Independent Business). For incumbents in close races, contributing to the incumbent was the most likely predicted outcome if the incumbent had a rating over 68. For incumbents not in close races (M = 0), a positive contribution was the most likely choice only if the rating exceeded 79. Closeness matters at the other end of the spectrum, too. In close races, contribution to the challenger was the most likely choice if the incumbent was rated below 22. In a race that is not expected to be close, an incumbent would have to have a rating under 6 before contribution to the challenger is estimated to be more likely than noncontribution. A similar pattern holds for most of the other PACs, though for the smaller PACs, noncontribution is generally predicted to be the most likely choice, regardless of the closeness of the race.

As a simple measure of overall predictive power, we computed for each PAC the proportionate reduction in error, PRE:

$$\text{PRE} = 1 - \frac{\text{classification errors made by probit model}}{\text{errors made by always predicting modal category}} \qquad (4)$$

The modal category is always non-contribution, except for the UAW (in which case, it is contribution to the incumbent). For the six large PACs, each of

which made contributions in at least 100 races, the probit model has a PRE between .24 and .51. If the classifications for these PACs are pooled, the probit model's PRE is .52. These six large contributors made 181 contributions to challengers. Only 5 of these "negative" contributions were predicted "positive" by our model. The same organizations made 861 contributions to incumbents. None of these were predicted by the probit model to have gone to challengers.

On the other hand, for small PACs, the probit model does not do any better than the naive prediction that no contributions will be made. Since noncontribution is estimated as the most likely choice in nearly all cases for these PACs, their PREs are between 0 and .1, even if all the classifications are pooled.[4]

Other specifications in which the latent variable depended on margin per se, on incumbent's seniority, or on a quadratic function of the ratings did no better and, in most instances, did worse than the simple structure whose estimates are reported in Table 1.

## IV. Who Gets How Much

Conditional on the incumbent's getting "positive" or "negative" money from a PAC, we estimated the amount contributed. We treated this amount as a linear function of independent variables plus a normal error, with separate variances and coefficients for the positive and negative regimes. Because we assume the "how much" decision has no parameters in common with the "who" decision, we can estimate these parameters by OLS applied to the positive money and negative money subsamples for each PAC.

We again experimented with a variety of specifications common to the literature, with key variables including ratings, seniority, and margin, as well as interactions among them. The most striking thing about our results is

how little of the variation in contributions is explained by the combination of these variables. Only in rare cases did our regressions account for more than 30 percent of the variance. Adjusted $r^2$ around 0.1 was typical. In many cases, we could not reject (at p=0.05) the hypothesis that the estimated parameters were all equal to zero.

These results are somewhat weak compared to those reported by Gopoian (1984). The major difference is likely due to the fact that each of his regressions includes "positive" money, zeros, and "negative" money. Estimates based on such specifications are really picking up the "who gets" effects captured by our probit model rather than the differential allocation among those actually receiving funds ("how much").

While overall explanatory power is generally poor, we did find the magnitude of "positive" contributions to be positively related to the PAC's rating of the incumbent in most cases. The effect of electoral margin also tended to echo our "who gets" results. As with our probit results, an incumbent's seniority appears to have no systematic effect on contributions to him.

For the four PACs that made contributions to challengers in more than 30 races, we estimated "how much" regressions for "negative" money. The results are similar to those for "positive" money. Once again there is low explanatory power, positive results for margin, and no systematic effect for seniority. In addition, rating appears to relate less well to challenger contributions than to incumbent contributions, perhaps because we have not included evaluations of the challenger in the model.

## V. Conclusion

A simple trichotomous probit model does reasonably well in explaining which incumbent Congressmen receive support from large PACs in their reelection bids. For large as well as small PACs, the likelihood of a contribution

is greater the more highly the PAC rates the incumbent's voting record on issues deemed important by the PAC's parent organization. If the incumbent is expected to be in a close race, the likelihood of both negative (for low-rated incumbents) and positive (for high-rated incumbents) contributions is increased. The smaller PACs in our sample, however, made contributions to only a few races, so for them our probit estimates yield poor predictions.

Moving from contributions favoring the incumbent, to "sitting out" the race, to contributions for the challenger is responsive to the rating of the incumbent. Our results easily differentiate, in terms of ratings, contributions to incumbents from contributions to challengers. All the same, the ratings alone do not allow us to pick out races that attract the attention of a PAC from those that do not. Similarly, we can account only very partially for the variations in the contributions given to those candidates who actually got money from a PAC.

These findings suggest an open research agenda. One approach would be to add additional variables, such as relevant committee assignments or geographical indices (e.g., in the case of the UAW, being a member from Michigan), as have been done in earlier studies. Such an approach would marginally improve predictive power, though it has not universally done so when tried in other analyses. A more enticing alternative would be to recognize that the relationship of a representative to a PAC is a dynamic one. It is possible that, when we look at a panel of elections, we will find that individuals who get positive contributions from a PAC tend to become repeat customers (much like an academic who gets his foot in a foundation's door). If so, we could point to a long-term client relationship between a PAC and the relatively few politicians it chooses to support.

## REFERENCES


Gopoian, J. David, " What Makes PACs Tick? Analysis of the Allocation Patterns of Economic Interest Groups," American Journal of Political Science, May 1984, 28, 259-281.

Jacobson, Gary C., "Money and Votes Reconsidered: Congressional Elections, 1972-1982," Public Choice, 1985, 47, 7-62.

McKelvey, Richard D. and Zavoina, William, "A Statistical Model for the Analysis of Ordinal Level Dependent Variables," Journal of Mathematical Sociology, 1975, 4, 103-120.

Poole, Keith T. and Romer, Thomas, "Patterns of Political Action Committee Contributions to the 1980 Campaigns for the U.S. House of Representatives," Public Choice, 1985, 47, 63-111.

Wright, John R., "PACs, Contributions, and Roll Calls: An Organizational Perspective," American Political Science Review, June 1985, 79, 400-414.

## FOOTNOTES

1. We excluded the race of O'Neill (D–Mass.) who, as Speaker of the House, does not normally vote, and so is unrated by interest groups. We also excluded two races in which the incumbent was a member who had won a special election, and did not have a complete voting record for 1979.

2. The labor PACs are those affiliated with American Federation of State, County, and Municipal Employees (AFSCME), American Federation of Teachers (AFT), Building and Construction Trades Department of AFL-CIO (BCTD), Committee on Political Education/AFL-CIO (COPE), National Education Association (NEA), United Auto Workers (UAW), and United Mine Workers (UMW). The business PACs are Chamber of Commerce of the U.S. (CCUS) and National Federation of Independent Business (NFIB). The others are Americans for Democratic Action (ADA), Committee for the Survival of a Free Congress (CSFC), and League of Conservation Voters (LCV). Where a group was connected to more than one PAC, we aggregated the contributions made by that group's PACs.

3. Poole and Romer (1985) indicate that, when PACs are aggregated, results of estimating contribution equations are insensitive as to whether margin is defined by the previous or the current election. We use the past election margin, since it is exogenous with respect to current contributions. The 25% criterion for a "close race" is a bit more broad than the 20% criterion used by Gopoian (1984) or, implicitly, by Wright(1985). By our definition, 35.5% of the 386 incumbents faced "close elections".

4. For the specification in Table 1, we also computed for each PAC the estimated geometric mean probability (gmp), which is the log-likelihood divided by N (=386) and exponentiated. For the large PACs, gmp is between .53 and .58; for the small PACs, gmp is between .61 and .85.

**Table 1.**
**Trichotomous Probit Results.**
(N = 386 for each PAC)

| PAC | Parameter | | | |
|---|---|---|---|---|
| | $\mu_1$ | $\beta_0$ | $\beta_1$ | $\beta_2$ |
| 1 AFSCME | 2.89332 | 1.05605 | 0.02356 | 0.01681 |
| | (17.30) | ( 6.21) | ( 7.13) | ( 3.53) |
| 2 BCTD | 2.79627 | 0.22937 | 0.04180 | 0.03964 |
| | (17.30) | ( 0.80) | ( 7.28) | ( 4.19) |
| 3 COPE | 2.68510 | 0.78016 | 0.01867 | 0.03039 |
| | (14.32) | ( 4.67) | ( 5.13) | ( 6.61) |
| 4 NEA | 3.28964 | 1.12006 | 0.02946 | 0.01186 |
| | (13.02) | ( 6.70) | ( 7.71) | ( 2.74) |
| 5 NFIB | 2.69694 | -0.21879 | 0.03700 | 0.02191 |
| | (12.37) | (-0.97) | ( 7.67) | ( 4.20) |
| 6 UAW | 2.13674 | 0.18733 | 0.03488 | 0.00593 |
| | (13.22) | ( 1.26) | (10.67) | ( 1.32) |
| 7 AFT | 3.36606 | 1.11484 | 0.01972 | 0.01587 |
| | (17.36) | ( 6.33) | ( 5.48) | ( 3.19) |
| 8 ADA | 5.62655 | 2.66910 | 0.01077 | 0.04197 |
| | ( 7.87) | ( 4.82) | ( 0.75) | ( 4.21) |
| 9 CCUS | 3.37438 | 1.24182 | 0.00716 | 0.02884 |
| | (17.97) | ( 5.58) | ( 1.43) | ( 5.38) |
| 10 CSFC | 4.14796 | 1.08786 | 0.01934 | 0.02461 |
| | (10.02) | ( 3.30) | ( 2.28) | ( 3.82) |
| 11 LCV | 4.36930 | 2.24101 | 0.00615 | 0.02414 |
| | (19.02) | ( 4.63) | ( 0.68) | ( 2.58) |
| 12 UMW | 3.77646 | 1.66876 | 0.00932 | 0.00528 |
| | (14.81) | ( 7.12) | ( 1.88) | ( 0.93) |

*Notes:* t-statistics in parentheses
PACs 1 - 6 each made contributions in more than 100 races. PACs 7 - 12 were less active, making contributions in 23 to 81 races.