Minimizing Whose Influence? How Rejecting PAC Contributions Affects Contribution Patterns

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Abstract

A growing trend among Congressional and presidential candidates is to reject campaign contributions from corporate Political Action Committees (PACs). Although positioned as an effort to decrease unwanted political influence from corporate interests, researchers have yet to examine how these pledges affect contribution patterns. Using data on Democratic candidates in the 2018 Congressional election, I find that although candidates who pledge to reject corporate PAC contributions are expected to receive fewer contributions from ideological, labor, and business PACs, they are also expected to receive more contributions from political PACs and individuals. Increases in individual contributions include small-dollar donations and donations from individuals affiliated ideological and business interests. Additionally, I find that candidates who pledge to reject PAC contributions are not expected to receive any electoral benefits. This is the first study to examine the effects of rejecting PAC contributions on contribution patterns, and the first test of the claim that making this pledge will increase small-dollar donations.

Key Words: Campaign Finance; Elections; Political Action Committees; Small Donors

1 Introduction

On national television during the Democratic debate on February 6, 2016, Bernie Sanders stood on stage and enthusiastically announced to the audience, "I am very proud to be the only candidate up here who does not have a super PAC, who's not raising huge sums of money from Wall Street and special interests." Indeed, during the campaign, Sanders publicly voiced his opposition to Political Action Committee (PAC) contributions and refused to accept their donations while his Democratic opponent, Hillary Clinton, accepted over \$1.7 million from PACs; A decision for which she faced sharp criticism from voters on the left (Seitz-Wald 2015; Ye Hee Lee 2016; Bump 2016; Harper 2019).

This trend in rejecting PAC contributions has continued into the 2018 Congressional races and so far in the 2020 presidential races. For example, Evers-Hillstrom (2018) reported in OpenSecrets News that 52 members of the 116 Congress, including 35 non-incumbents, announced that they would not accept money from corporate PACs during their campaigns. Similarly, Averi Harper wrote an article in ABC News claiming, "The 2020 Democratic presidential candidates are forgoing corporate money in an effort to capture small donors." In fact, as of April of 2019, all 14 of the 2020 presidential Democratic candidates have declined to accept corporate PAC contributions (although only three have declined to accept contributions from all PACs).

The push for campaign donations in the form of small-dollar donations, rather than PAC contributions, is indicative of demand from, or at least a perception among candidates of, voters wanting to bring the era of "captured" politicians to an end (Culberson, McDonald, and Robbins 2019). Indeed, the implicit belief seems to be that contributions from PACs affiliated with corporations produce corruption and render elected officials unwilling to serve the public interest. "We desperately need to get the money out of the political system. Because I don't think we have a Congress that's representing the people anymore," a Minnesota resident complained during the 2018 midterm (Stockman 2018). When asked about his decision to reject PAC money, Beto O'Rourke's communications director said, "It's a

major theme of the campaign. People want to know that you are going to respond to them and their interests, and not the most recent check you received" (Stockman 2018).

Despite the stated intentions of anti-PAC pledges, do they actually produce a distribution of contributions that voters would consider more transparent? Or, does this strategy encourage contributions through alternative, and more covert, mediums?

Despite the stated intentions of anti-PAC pledges, do they actually limit potential influence of corporations and wealthy-individuals? Using Federal Election Commission data on campaign donations for Democratic candidates in the 2018 Congressional House Election, I show that when compared to candidates who accept PAC contributions, candidates who reject PAC contributions are expected to receive fewer contributions from PACs, as expected. Additionally, candidates who reject PAC contributions are expected to receive more contributions of less than $200 from individuals. This is supports the claim that voters approve of anti-PAC pledges and are responsive to candidates' efforts to get-out-the-small-dollar-donations.

Perhaps unintentionally, when compared to candidates who accept PAC contributions, candidates who reject corporate PAC contributions are expected to receive more contributions from other candidate's committees, large-dollar individual contributions, and contributions from individuals affiliated with ideological and business interests. These expected increases suggest that anti-PAC pledges may reduce influence from PACs, but that they might also allow for more influence from elected officials, wealthy individuals, and corporations via individual donations. At best, this pattern of contributions represents an increase in partisan politics and a last resort effort for outside interests to influence the political process. At worst, these pledges are strategic decisions on behalf of candidates to convince voters that money will not sway a candidate's political behavior because they refuse to accept contributions from corporate PACs while realizing that support from these PACs will come via individuals.

This study makes two significant contributions. First, to my knowledge, it is the first

to examine the effects of pledging to reject PAC contributions on the distribution of a candidate's campaign contributions. Campaign finance is an omnipresent concern for the vast majority of voters and political scientists, thus refusing PAC donations presents a curious strategy with unknown consequences. Perhaps such a strategy is born out of honest intentions, and perhaps it is not. Either way, the systematic examination offered in this article provides valuable insights into the effects of this trend.

Second, this study is the first to test the claim that by pledging to reject corporate PAC contributions, candidates will increase the amount of small-dollar donations from individual voters. The trend of candidates refusing to accept campaign contributions from PACs suggests that candidates assume this fact and that they also believe that they will attract more political support and small-dollar donations from individuals by publicizing their opposition to PACs.

2   Perceptions about Money in Politics

Americans are remarkably cynical about Congress, and this cynicism is increasing. According to a survey conducted by the Pew Research Center, as of February of 2014, only 24 percent of the public trust Congress (Pew Research Center 2014) and public trust in Congress has been declining since 1950 (Dalton 2005). Among the sources of distrust, researchers have argued that perceptions of money in politics play a crucial role (Lubenow 2001).

More than affecting evaluations of Congress as a whole, scholars have also argued that campaign finance may alter voter's perceptions of individual candidates. For example, after conducting a survey experiment, Bowler and Donovan (2016) find that beliefs about how trustworthy or corrupt campaign contributions are depend on the source of the contributions. As a whole, they find that contributions of identical amounts made to candidates by corporations and unions are perceived as more corrupt than contributions made by individuals. This suggests that the source of the contributions matter to voters and that messages

about campaign finance may alter their perception of candidates. Indeed, by announcing opposition to PAC donations, candidates may provide an information signal to voters that PAC donations produce adverse effects and that pursuing financing through alternative means is a more "trustworthy" strategy.

That American's lack political knowledge is perhaps the most well established finding in political science (Page and Shapiro 1992; Carpini and Keeter 1997). Hence, there is little reason to suspect that voters are knowledgeable about a particular candidate's campaign contribution sources unless they are explicitly discussed. Moreover, the majority of Americans are dissatisfied with campaign practices in general, (Mayer 2001; Persily and Lammie 2004). Since trust in political officials has been declining over the last several decades, candidates should be able to use this to their advantage on the campaign trail. Specifically, pledging to reject corporate PAC donations might be an attempt to signal their trustworthiness to voters.

Such signaling effects through the media have been well-documented (Iyengar and Kinder 1989), and voters see small-dollar donations from individuals as more honest (Bowler and Donovan 2016). Indeed, Ella Nilsen (2019) reported that Elizabeth Warren "swore off PAC money to make a statement" in a story for Vox.com. In an email to her supporters Warren explained, "For every time you see a presidential candidate talking with voters at a town hall, rally, or local diner, those same candidates are spending three or four or five times as long with wealthy donors — on the phone, or in conference rooms at hedge fund offices, or at fancy receptions and intimate dinners — all behind closed doors" (Nilsen 2019). The 2020 Democratic candidates are almost in a competition to distance themselves as far as they can from PACs and special interests, and there is little reason to suspect that the 2018 Democratic Congressional candidates would view this issue any differently. This reasoning motivates my first hypothesis:

Hypothesis 1 *Candidates that pledge to reject corporate PAC contributions will receive an increase in individual small-dollar donations.*

3 Limiting Corporate Influence?

Whether or not rejecting corporate PAC contributions reduces corporate influence is unclear. The primary issue with answering this question is that we cannot directly observe *why* a candidate decides to reject corporate PAC contributions. Ideally, this decision is made to remove any possibility of corruption and seek support from solely from one's constituents. The reality, however, is that candidates can, and do, receive campaign contributions from a variety of sources. This means that the decision to reject corporate PAC contributions could be because of a strategic decision to get financial support from other sources. Similarly, candidates could decided to reject PAC contributions only when they have strong reason to believe that they will receive contributions from non-corporate PACs. Indeed, the fact that the majority of candidates only pledge to reject *corporate* PAC and not all PAC contributions indicate that they are still allowing for support from non-corporate PACs.

Campaigns are extraordinarily expensive, however, and rejecting contributions from PACs means that the money candidates need will need to come from somewhere else. In general, PACs tend to prioritize their contributions for incumbents rather than challengers (Brunell 2005), and they often wait to support challengers until they show success in raising funds from other sources (Biersack, Herrnson, and Wilcox 1993). Individual donors, on the other hand, tend to be wealthy (Brown et al. 1995) and target candidates that are ideologically similar (Bonica 2014). Candidates can also receive support from political parties and other candidates or elected officials, as they often do (Wilcox 1989; Currinder 2003). Like individual contributions, voters may not view contributions from partisan sources as "corrupt" and could arrange for monetary support from partisan organizations if small-dollar contributions do not reach expectations. Moreover, political parties are much more vested in the success of their party's candidates and thus less likely to risk their candidates not being able to raise enough money (Herrnson 2009). Parties should be prepared to offer financial assistance, if needed, to candidates struggling to raise enough funds to be competitive. This motivates my second hypothesis:

Hypothesis 2 *Candidates that reject corporate PAC money will receive more contributions from partisan sources.*

Perhaps more concerning is the possibility that corporate PACs will decide to exert their influence on candidates through individual donations. Francia et al. (2003) identify four categories of big donors: those that seek material gain, those with ideological agendas, those motivated by the social considerations, and those with irregular behavior. Although it is difficult to access the motivations of individual donors, it is at least possible that those motivated by material gain are more closely associated with corporate interests. Indeed, the Center for Responsive Politics documents donations made by individuals in connection with larger organizations because, "In some cases, a cluster of contributions from the same organization may indicate a concerted effort by that organization to 'bundle' contributions to the candidate."

Moreover, the opportunity costs for a corporation to not get involved in an election are high (Denzau and Munger 1986; Grier and Munger 1986; Kroszner and Stratmann 1998). It would be economically irrational for a corporate PAC interested in influencing politics to abandon its efforts because a candidate wishes to avoid the negative publicity of receiving contributions from corporate PACs. Instead, a rational corporate PAC should use alternative means to supply campaign contributions. This motivates a final hypothesis:

Hypothesis 3 *Candidates that reject corporate PAC money will receive more contributions from individuals associated with business and ideological interests.*

The expectation that anti-PAC pledges are strategic essentially entails that candidates seek to get 51 percent of the vote while avoiding any negative publicity of accepting money from corporate PACs. This amounts to maximizing non-corporate PAC contributions and minimizing corporate PAC contributions. Figure 1 visualizes this as an isoquant map and shows the isoquant representing 51 percent of the vote. To reach that 51 percent threshold, candidates can use more contributions from corporate PACs, A_i, which will require them

to raise less money from non-corporate PACs, whether they be individuals or other PACs. Alternatively, candidates who believe that they can raise a sufficient amount of contributions from non-corporate PACs can move to point B_i where they need fewer contributions from corporate PACs. Thus, B_i represents the ideal case for most Democratic candidates.
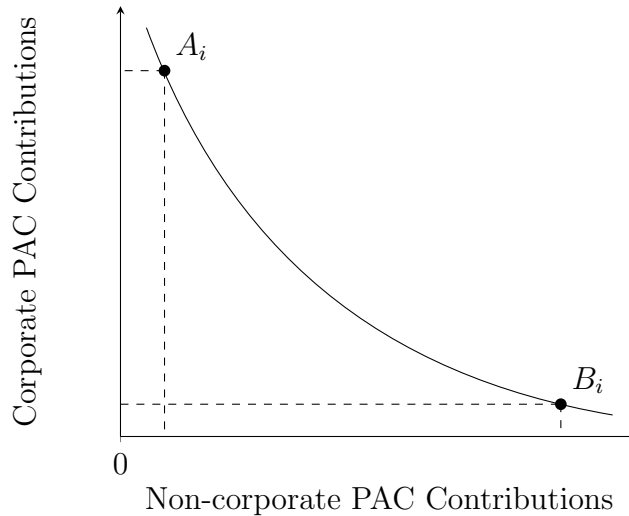

Figure 1: **Campaign Contribution Decision Trade-off.** This figure presents an isoquant map of the combination of campaign contributions needed to reach a winning vote threshold of 51 percent. Candidates at A_i use more corporate PAC contributions while candidates at B_i use more non-corporate PAC contributions to accomplish the same 51 percent threshold.

In summary, pledging to reject corporate PAC contributions is likely an attempt to signal to voters that a candidate is not "bought-out" by special interests and is thus more trustworthy. As a result of this signaling, the candidate should receive an increase in individual small-dollar donations. Rejecting such a significant source of funding also introduces an electoral risk, one that political parties, who are primarily interested in the success of their candidates, may be unwilling to accept. Thus, candidates who reject PAC money will receive an increase in contributions from partisan organizations like political parties themselves or other elected officials. Finally, since the opportunity cost of not making political contributions is so high, corporations are unlikely to cease their involvement in campaign funding because a member will not accept money from their associated PAC. Instead, they could still exert their influence through individual donations, which would allow their recipients to

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still be able to claim that they do not accept corporate PAC money. Thus, candidates that pledge to reject corporate PAC contributions will receive an increase in contributions from individuals associated with corporations.

4 Data

To test these hypotheses, I take advantage of unique campaign finance data on Congressional candidates in the 2018 midterm election provided by The Center for Responsive Politics at Opensecrets.org. The data are unique because The Center for Responsive Politics started keeping records of which candidates pledged not to accept corporate PAC contributions for the 2018 elections. Prior to their efforts, and to the best of my knowledge, there are no records of which candidates did and did not pledge to refuse corporate PAC contributions. Unfortunately, this limits my sample to only the 2018 midterm. This cross-section makes it difficult to generalize model results beyond one election, but I believe that these data still provide a foundation for meaningful results especially since the pattern of refusing corporate PAC contributions is likely to continue.

In the available data on candidates who refuse corporate PAC contributions, data are only provided for candidates who won their elections. While this does limit the sample, it also helps to create better comparison groups. It is necessarily the case that candidates that did not win their elections differ, likely systematically, from those that did win, and these differences could be on factors that also determine campaign contributions. By not having candidates who lost their election in the sample, these differences are effectively controlled for. I do, however, restrict the sample to only include Democrats. Since the composition of campaign contributors differs between parties, only including Democrats helps to remove some of this heterogeneity. Moreover, refusing corporate PAC money is not a common strategy among Republicans; there are only 2 Republicans in the sample that took the pledge to reject corporate PAC contributions.

The final sample contains 167 Democratic candidates that won election in their district. Although this produces helpful comparison groups, my ability to make causal inferences is still limited. I do not claim to have identified causal effects. Instead, this study is an effort to understand the associational patterns of campaign contribution activity for candidates that do and do not accept corporate PAC contributions.

In addition to campaign finance data, I also use vote share data for each candidate from the MIT Election Data + Science Lab. Finally, I get Congressional district demographic data from the U.S. Census Bureau.
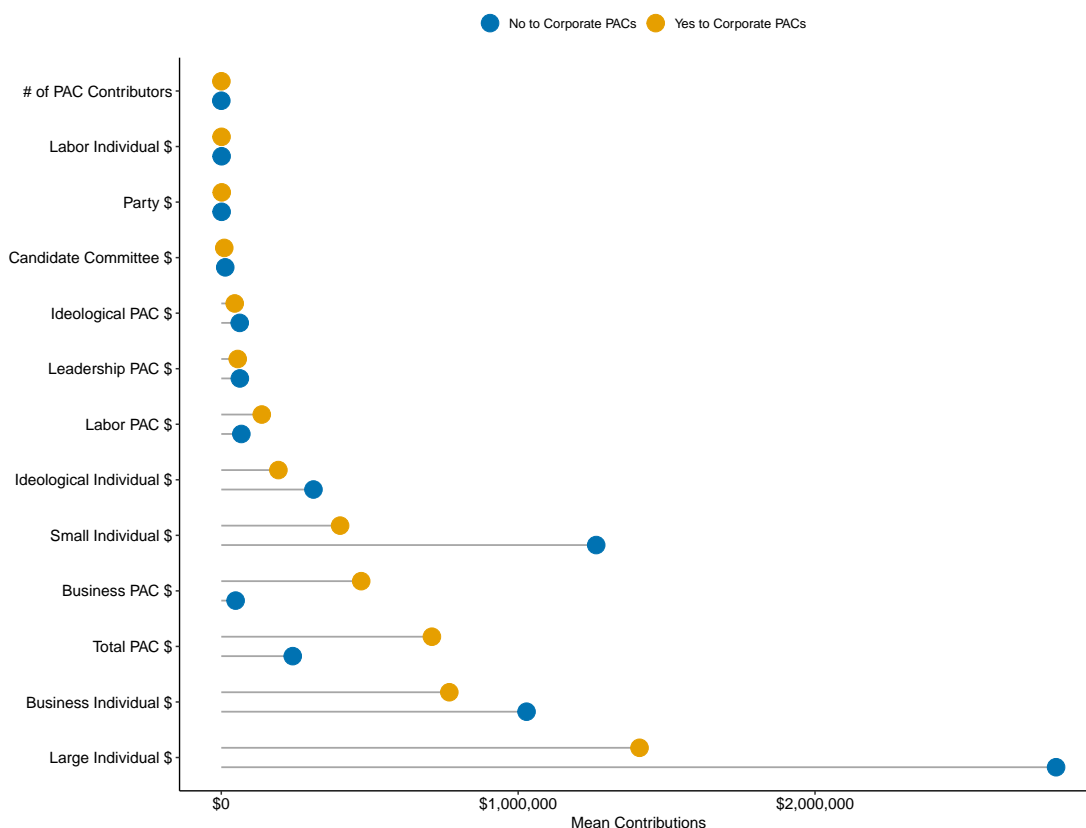

Figure 2: **Contributions to Candidates by Source and Whether or not they Reject PAC Contributions.** This figures shows that while candidates who pledge to reject corporate PAC contributions receive fewer contributions from business PACs, they receive more contributions from leadership PACs, ideological PACs, individuals affiliated with ideological interest groups, small-dollar donations, individuals affiliated with business interest groups, and large-dollar donations.

Figure 2 displays the mean contributions across candidates by whether or not they pledge

to reject corporate PAC contributions. We see that candidates who pledge to reject corporate PAC contributions receive almost zero contributions from business PACs, and they also receive much fewer contributions from PACs in total. However, these candidates also receive more contributions from leadership PACs, ideological PACs, individuals affiliated with ideological interest groups, small-dollar donations, individuals affiliated with business interest groups, and large-dollar donations.
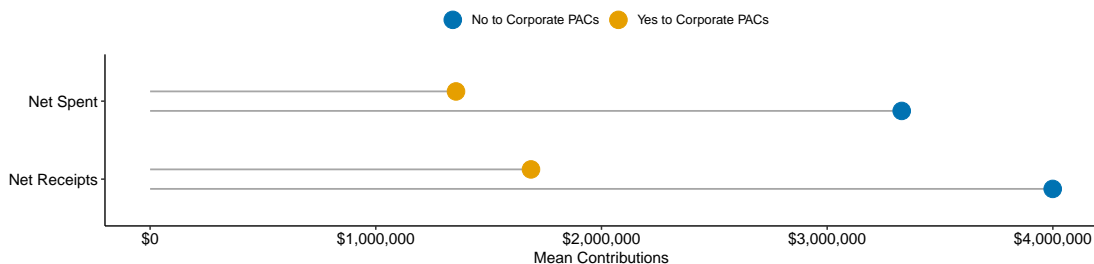

Figure 3: **Mean Candidate Spending and Receipts by Whether or not they Reject PAC Contributions.** This figure shows that candidates who pledge to reject corporate PAC contributions spend about 2.5 times more than their PAC accepting counterparts and receive about 2.25 times more total contributions.

Figure 3 displays the mean level of campaign spending and receipts by whether or not the candidate pledges to reject corporate PAC contributions. Here we see that candidates who reject corporate PAC contributions outspend and out-raise their PAC-accepting counterparts by a significant margin.

5   Model Definition

The goal of any statistical model is to describe the data generating process of the outcome under consideration. In this study, the primary interest is in modeling the generative process of campaign contributions from PACs, political party organizations, and individuals. Campaign contributions are composed of positive real values. Thus, campaign contributions likely arise from a gamma process since the gamma distribution describes a data generating process for a random variable with only positive real number outcomes $y \in \mathbb{R}^+$.

However, because some candidates pledge to reject contributions from PACs, contribution values of zero are also possible. A zero could result because they accept zero contributions from a group, but a group could also decide not to contribute to a candidate because they pledged to reject PAC contributions. For example, suppose a new candidate takes to pledge to reject PAC contributions because they feel that doing so is morally right. Further suppose, however, that their political party's leadership wanted the candidate to announce their opposition to PACs after they had some time to evaluate this candidate's probability of winning the election and estimate their fundraising needs. Because the candidate did not wait for the party's approval, the party decides that this candidate has little chance of success given the timing of their announcement and therefore chooses not to give this candidate funds from the party committee. In this situation, the candidate would receive zero contributions from their party because they pledge to reject PAC contributions. This dual process is summarized in Figure 5. Candidates decided either to reject PACs with probability of π or accept PACs with probability $(1 - \pi)$. If they reject PACs, we will observe a zero. If they do not reject PACs, we may still observe a zero if the candidate fails to attract donations from the group in question.
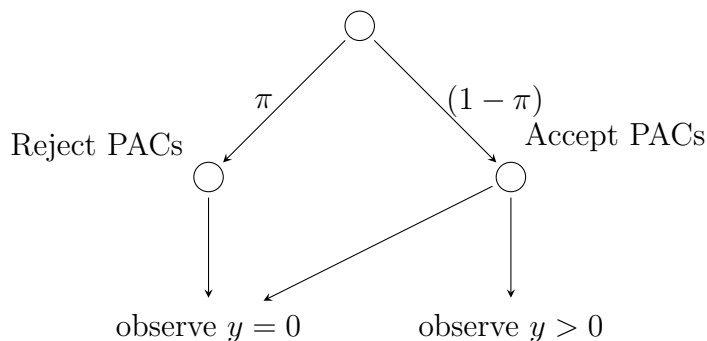

Figure 4: **Zero Generation Process.** Candidates can receive zero contributions through two different process. First, they may receive zero contributions because they pledge to reject PAC contributions. Second, they may receive zero contributions because they simply do not receive contributions from a particular group.

Figure 5 shows the percentage of zeros in the data. Of the 167 candidates in the data, 84 percent did not receive contributions from party committees, 68 percent did not receive

contributions from individuals affiliated with labor organizations, 12 percent did not receive contributions from candidate committees, 10 percent did not receive contributions from leadership PACs, 5 percent did not receive contributions from business PACs, 4 percent did not receive contributions from individuals affiliated with ideological organizations, 2 percent did not receive contributions from labor PACs, and 1 percent did not receive contributions from ideological PACs and PACs in general.
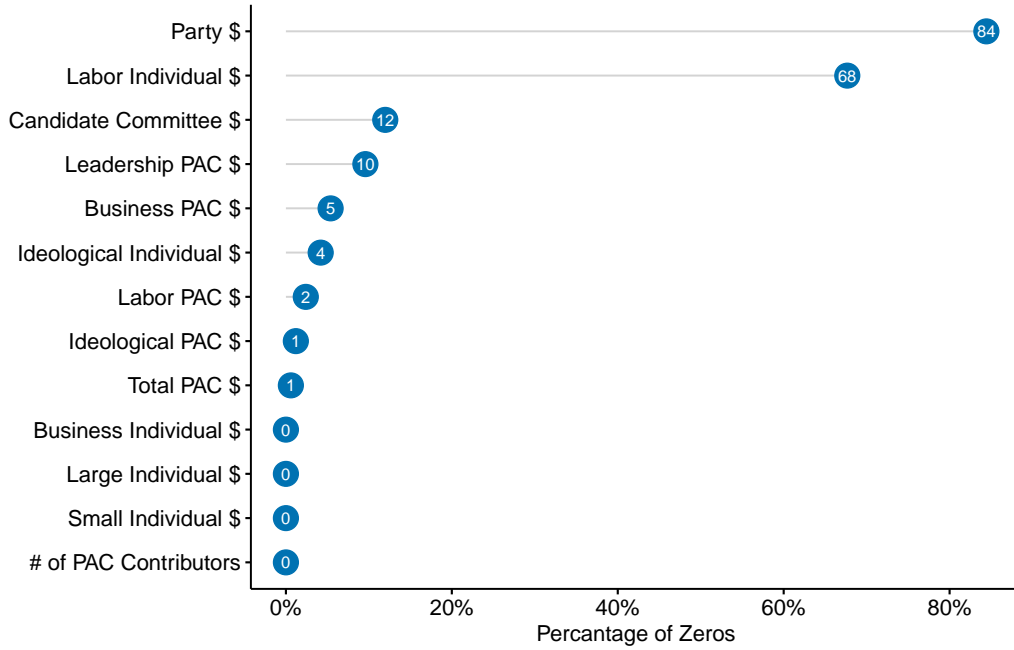

Figure 5: **Percentage of Zero Contributions in the Data by Source of Contribution.**

Because the gamma distribution is not defined for zero values, I use a zero-augmented gamma likelihood function for models of contributions that contain zero values as mentioned above. The zero-augmented gamma likelihood is a mixture of a bernoulli and gamma process. Thus, the probability density $f(y)$ for contributions can be defined as:

$$
f(y) = \begin{cases} \pi & \text{if } y = 0 \\ (1-\pi)\text{Gamma}(k, \theta) & \text{if } y > 0 \end{cases}
\tag{1}
$$

where π is the probability of receiving zero contributions from a given group $(y = 0)$, and k

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and θ define a gamma distribution with mean $k\theta^{-1}$ and rate θ. This likelihood can be easily summarized as $\mathrm{ZGamma}(\pi, \mu, \theta)$ where π indicates the probability of a zero, and non-zero outcomes are described by a mean μ and rate θ. For more information on the mathematical details, see McCullagn and Nelder (1989). An alternative solution to model this data would be to model cases of zero contributions separately from non-zero cases, but this approach would sacrifice information about the relationship between these cases. By leaving zero cases in the dataset, the model can allow the probability of observing a zero inform the coefficient estimates in the gamma likelihood and vice versa. This way, the model can develop a more accurate picture of the data generating process.

Although this pooling of information leads to more informative estimates, this can only be the case if there are enough zero cases to provide useful information. As a result, it is unlikely that the model will learn anything meaningful for the cases where the occurrence of zeros is between 1 and 5 percent, even 12 percent is doubtful. For these models, the estimated probability of observing a zero will almost certainly be determined by the priors simply because there is not enough data. By using weakly-informative priors, we can extract some useful information, but ultimately the model will benefit very little from retaining the zeros in the data. In these cases, the estimated effect of rejecting PACs on contributions will converge to the gamma likelihood estimates.

5.1 Modeling Campaign Contributions

Campaign contributions are divided into three groups—contributions from PACs, contributions from political party organizations, and contributions from individuals. In the PAC group, I examine the pattern of contributions made to candidates from PACs that primarily represent business, labor, and ideological interests. In the political party group, I examine contributions to candidates from leadership PACs, political party committees, and candidate committees. Leadership PACs are PACs created by incumbents to raise money to cover expenditures that cannot be paid by campaign committees or congressional offices. Addi-

tionally, leadership PAC funds can be used to fund other candidates' campaigns, as is often the case (Herrnson 2009; Lazer 2015b).

Along with leadership PACs, political parties can also contribute to a candidate's campaign. Finally, a member can use their candidate committee to contribute to another member's campaign. This is often done to support candidates of one's party who are challenging incumbents or are at risk of being defeated (Wilcox 1989; Lazer 2015a).

For the final group, individual contributions, I examine small-dollar contributions ($<$ \$200), large-dollar contributions ($>$ \$200), and individual contributions associated with ideological, labor, and business organizations. Since the Federal Election Commission requires that all contributions above \$200 must be itemized and list the donor's employer and occupation information, this information can be used to approximate a donor's economic interest. This is, of course, not a perfect measurement, but it will provide insight into the types of individual donations that a candidate receives.

The model structure used to estimate campaign contributions for outcomes that contain zeros is given by:

$$y_i \sim \text{ZGamma}(\pi_i, \mu_i, \theta_i)$$

$$\log\left(\frac{\pi_i}{1 - \pi_i}\right) = \alpha_\pi + \beta_{1\pi}(\text{No PACs})_i + \beta_{2\pi}(\text{New Member})_i$$

$$\log(\mu_i) = \alpha_\mu + \beta_{1\mu}(\text{No PACs})_i + \boldsymbol{X}\boldsymbol{\beta_\mu}$$

where i indexes individuals, $\boldsymbol{X}$ is a matrix of adjustment variables, and $\boldsymbol{\beta_\mu}$ is the corresponding coefficient vector. In these models, the probability of receiving contributions is modeled as a function of both rejecting PACs (0 - 1 indicator) and being a new member (0 - 1 indicator). Previous research indicates that PACs almost exclusively contribute to incumbents (Brunell 2005) and that they often wait to support challengers until they show success in raising funds from other sources (Biersack, Herrnson, and Wilcox 1993).

To model campaign contributions for outcomes without zeros (small-dollar individual, large-dollar individual, business individual, total individual, vote share, voting-age popula-

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tion turnout), I use a standard gamma likelihood.

5.2 Priors

Just as the choice of likelihood and link functions can lead to different results, the choice of priors also affects model results. Priors, even when somewhat strong, are typically overridden by the data when working with large-n dataset, but when working with small-n data, priors can have large influences if one is not careful (McNeish 2016). Although this risk is present, Bayesian methods can also outperform Frequentist methods when working with small-n data since Bayesian analysis does not rely on asymptotic properties and because priors can be used to help narrow the range of plausible values that the model can produce.

I use weakly-informative priors for two reasons. First, because the sample size is 167 individuals, I use priors to inform the model of what values the parameters can reasonably take on. This practice leads to estimates that better approximate large-n estimates because of irregular variance due to the small-n nature of the data can be discounted (McNeish 2016). Second, using "uninformative" priors is seldom justified since one always knows something *a priori* about the range of plausible values (Gelman et al. 2008). For example, whether one studies politics or not, it is known that a candidate's vote share cannot exceed 100 percent and cannot fall below 0 percent. For simulations of the priors used in each specification, see Appendix B.

6   Results

6.1   Contributions from PACs

In examining the effects of rejecting corporate PAC contributions, I start by investigating how the pledge affects contribution patterns from business, labor, and ideological PACs. The results from these estimations are summarized in Figure 6. Figure 6a presents the estimates for non-zero contributions and shows that when comparing candidates with the same

values for all the adjustment variables but who differed on whether they accept corporate PAC contributions, the models predict candidates who reject corporate PAC contributions to have fewer PAC contributions from businesses, labor interest groups, and ideological interest groups. Interestingly, however, for zero contributions, Figure 6b shows that when comparing candidates with the same new member status who differ on whether they accept corporate PAC contributions we would expect candidates who reject corporate PAC contributions to have a higher probability of not receiving contributions only from business PACs. This suggests that while *how much* ideological and labor PACs contribute is related to a candidate's position on corporate PAC contributions, *whether or not* they give is not.

The models predict fewer contributions from ideological, labor, and business PACs for candidates who reject corporate PAC contributions, but is it enough to matter? Figure 7 shows the total amount of contributions each candidate type is predicted to receive by PAC category. For ideological PACs, the predicted difference of roughly $3,000 is negligible, but the differences for labor and business PAC contributions are more substantial. Candidates that pledge to reject corporate PAC contributions are predicted to receive about $47,000 less than candidates who do not take the pledge. For business PACs, the difference is about $358,000 - a substantively meaningful difference.

6.2 Contributions from Party Organizations

The second category of contributions I examine are those from political party organizations. Specifically, I examine contributions from candidate committees, political party committees, and leadership PACs. Once a candidate for office spends or receives more than $5,000, they become an official candidate and must establish a campaign committee, called a "candidate committee," to receive contributions and make campaign expenditures. Once in office, members retain their candidate committees for reelection purposes, but they also use them to support other candidate's electoral efforts. Typically, members transfer funds between candidate committees to help incumbents retain their seats or challengers unseat members

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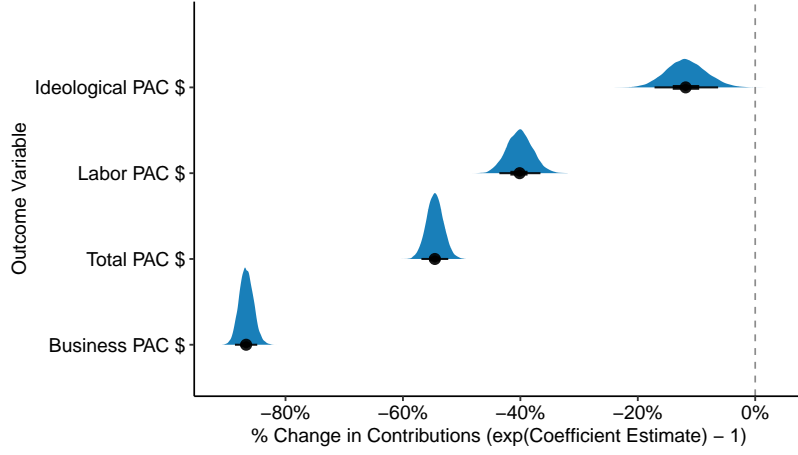
(a) The Effect of Rejecting Corporate PAC Contributions on PAC Contributions.
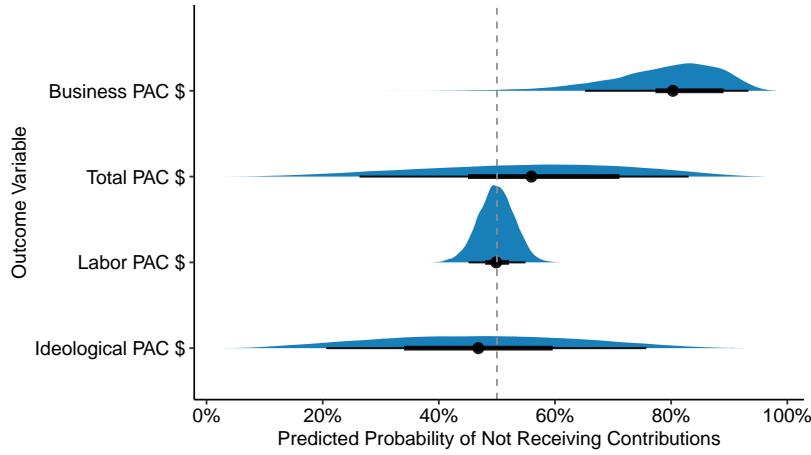
(b) The Effect of Rejecting Corporate PAC Contributions on the Probability of Receiving PAC Contributions

Figure 6: **The Effect of Rejecting Corporate PAC Contributions on PAC Contributions and the Probability of Receiving Money from PACs.** These figures present the posterior distributions estimated for a candidate that pledges to reject corporate PAC contributions. The dot shows the median coefficient estimate and the intervals show the 50% and 89% highest density intervals. Figure 6a shows that candidates who differ by whether they pledge to reject corporate PAC contributions are expected to have fewer contributions from all types of PACs. Figure 6b shows that candidates who reject corporate PAC contributions are expected to have a higher probability of not receiving contributions from business PACs than candidates who accept corporate PAC contributions. See Table A1 for the formal estimates.

from the opposing party.

Leadership PACs are established by members after elections to raise money for their
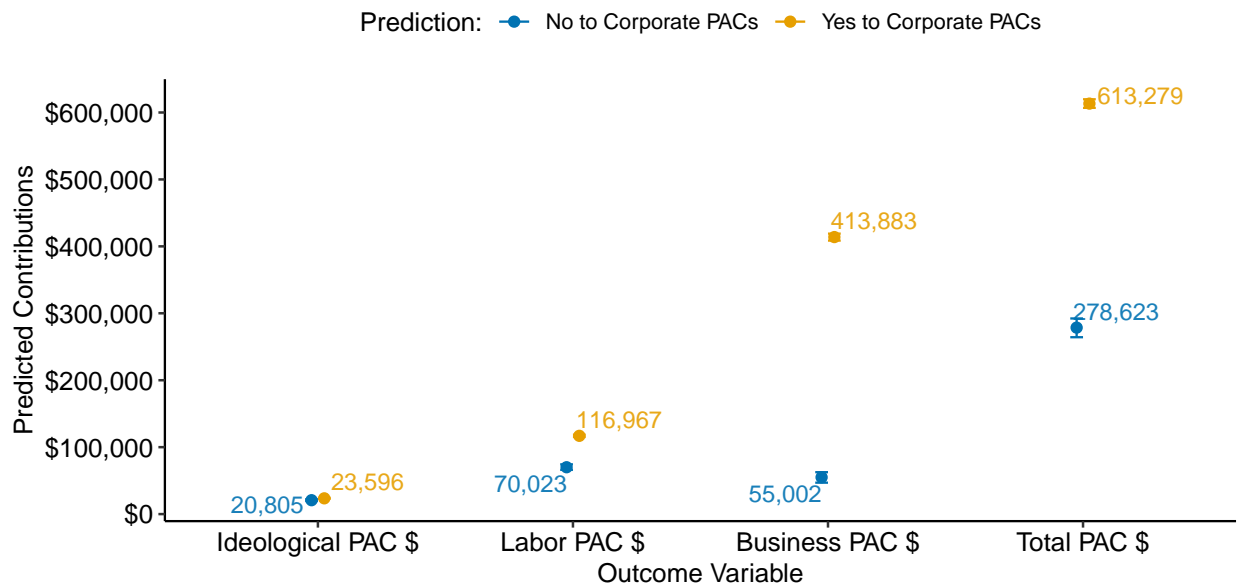
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Figure 7: **Total Predicted Contributions from Each PAC by Candidate Type.**
This figure shows that candidates who pledge to reject PAC contributions are predicted to
received fewer contributions from PACs, but the difference is largest for contributions from
business PACs.

future political career prospects. They are typically used to pay for expenses that campaign
committee funds cannot be used for, but, much like candidate committees, they are also
used to support fellow candidates.

Finally, political parties also have their own PACs that are used to support their party's
candidates either directly or indirectly. Because rejecting corporate PAC money may be
done strategically when a candidate knows that they will have support from their party, I
examine each of these sources individually.

The results from these models are presented in Figure 8. Figure 8a displays the estimates
for non-zero contributions and shows that when comparing candidates with the same values
for all the adjustment variables but who differ on whether they accept corporate PAC contri-
butions, the models predict an expected positive difference in contributions from candidate
committees and a negative difference in contributions from leadership PACs for candidates
who reject corporate PAC contributions. Although I am unable to test for causal effects, this
could be indicative of a strategic motivation for taking the pledge. Candidates who pledge to
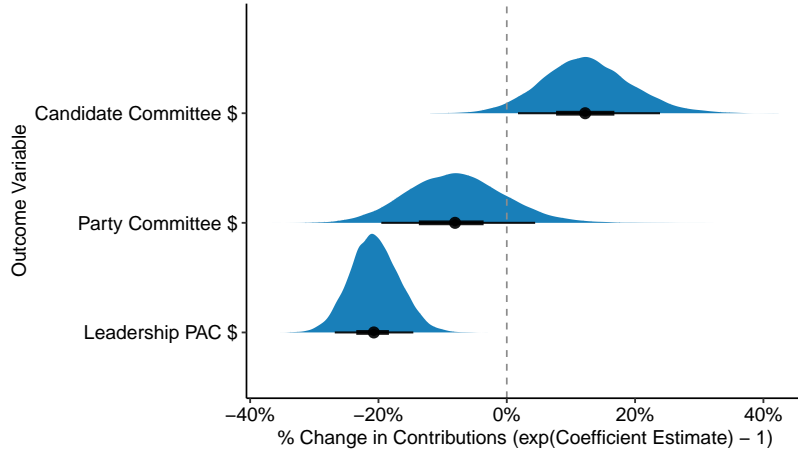
(a) The Effect of Rejecting Corporate PAC Contributions on
Contributions from Party Organizations.
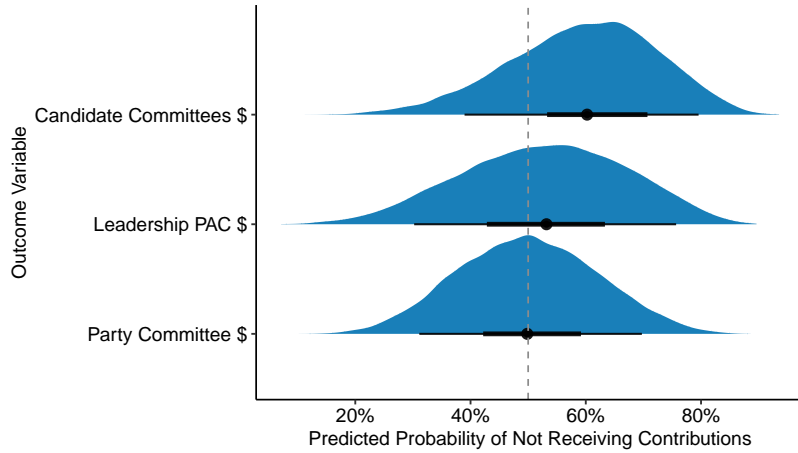
(b) The Effect of Rejecting Corporate PAC Contributions on the
Probability of Receiving Party Contributions.

Figure 8: **The Effect of Rejecting Corporate PAC Contributions on Contributions
and the Probability of Receiving Money from Political Parties.** These figures
present the posterior distributions estimated for a candidate that pledges to reject corporate
PAC contributions. The dot shows the median coefficient estimate and the intervals show
the 50% and 89% highest density intervals. Figure 8a shows that candidates who differ
by whether they pledge to reject corporate PAC contributions are expected to have fewer
contributions from leadership PACs and more contributions from candidate committees.
Figure 8b shows that the model makes no meaningful prediction for how contributions from
candidate committees, leadership PACs, or political parties differ between candidates who
differ in their position towards corporate PAC contributions. See Table A2 for the formal
estimates.

reject corporate PAC contributions could do so because they know they will receive financial

support from other candidates. With respect to whether or not taking the pledge affects

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the probability of receiving contributions from these categories, Figure 8b indicates that the model makes no informative prediction. Much like the previous findings, this means that pledging to reject corporate PAC donations is associated with changes in *how much* a candidate receives from these groups, but it is not associated with *whether or not* these groups contribute to an individual's campaign.

Again, however, it is important to assess the substantive importance of the contribution changes. The total predicted contributions from candidate committees, leadership PACs, and party committees are presented in Figure 9. Although the model for candidate committee contributions estimates that rejecting corporate PACs likely has a non-zero relationship with contributions, it predicts that these candidates will receive about $400 more than candidates who do not take the pledge. Such an amount is likely inconsequential, but it is still consistent with the possibility that the pledge is taken for strategic reasons. Perhaps none of the candidates needed to accept the agreed-upon money from other candidates because funds from other sources exceeded expectations.

The story is a bit different with leadership PACs. Here, the model predicts that candidates who take the pledge will receive about $2,500 less than candidates who do not take the pledge. Such a difference could make a difference in a marginal race, perhaps, but it is nonetheless a rather small amount.

6.3   Contributions from Individuals

The final category of contributions that I examine are those from individual donors. Candidates who reject corporate PAC contributions frequently advertise this fact in an apparent attempt to increase the number of small-dollar contributions they receive from individuals. Consistent with their expectations, Figure 10a offers supporting evidence. Remarkably, when comparing candidates with the same values for all the adjustment variables but who differ on whether they accept corporate PAC contributions, the models predict an expected 90 percent difference in contributions from donors who gave less than $200.
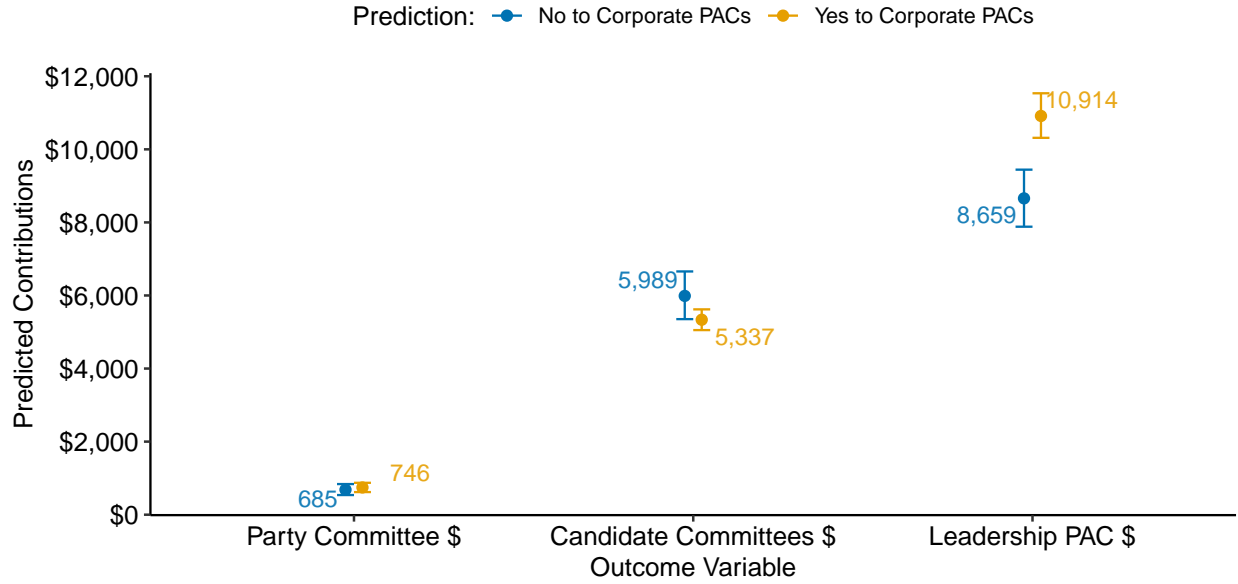
Figure 9: **Total Predicted Contributions from Each Party Organization by Candidate Type.** This figure shows that candidates who pledge to reject PAC contributions are predicted to received fewer contributions from leadership PACs but more contributions from candidate and party committees.

Interestingly, campaign contributions from individuals affiliated with businesses, ideological organizations, and large-dollar contributions are expected to have a positive difference as well. If PAC positions are strategic, then interest groups might channel their contributions through individual donors when wanting to make contributions to candidates who refuse corporate PAC contributions. The model's predictions for these contributions are shown in Figure 11.

Figure 11 shows that candidates who take the pledge to reject corporate PAC contributions are predicted to receive an increase in contributions of roughly $10,000, $50,000, $24,000, and $145,000 from individuals affiliated with ideological interest groups, donations less than $200, individuals affiliated with businesses, and donations larger than $200, respectively.
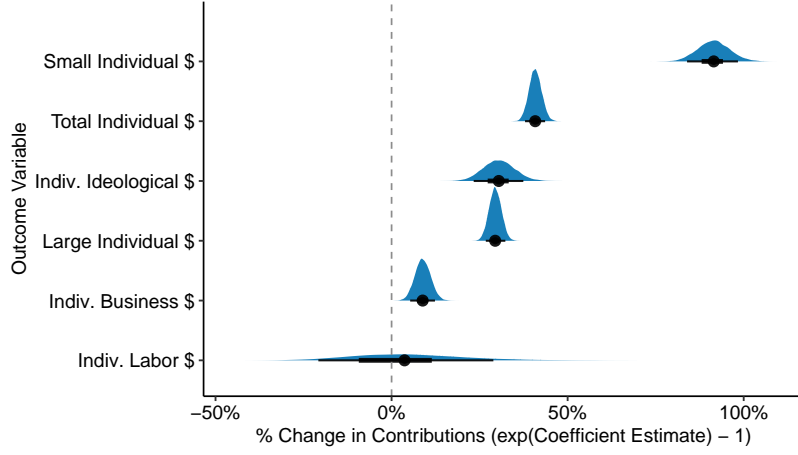
(a) The Effect of Rejecting Corporate PAC Contributions on Contributions from Individuals.
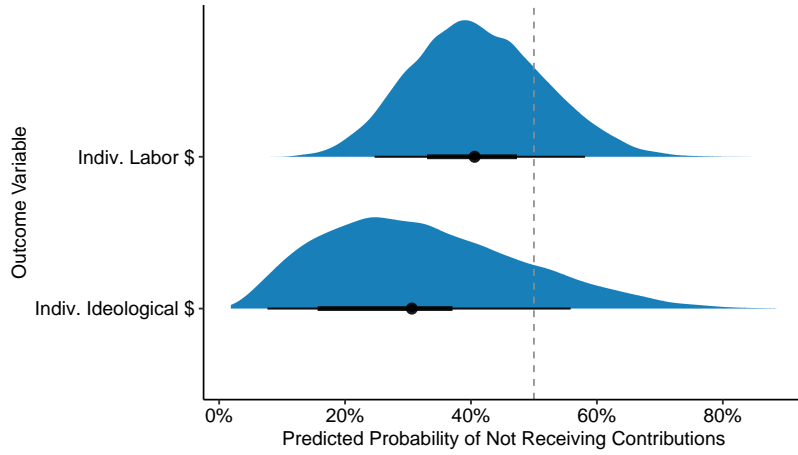
(b) The Effect of Rejecting Corporate PAC Contributions on the Probability of Receiving Individual Contributions.

Figure 10: **The Effect of Rejecting Corporate PAC Contributions on Contributions and the Probability of Receiving Money from Individuals.** These figures present the posterior distributions estimated for a candidate that pledges to reject corporate PAC contributions. The dot shows the median coefficient estimate and the intervals show the 50% and 89% highest density intervals. Figure 10a shows that candidates who differ by whether they pledge to reject corporate PAC contributions are expected to have more in contributions from small-dollar, total, ideological, large-dollar, and business individual contributions. Figure 10b shows that rejecting corporate PAC contributions has no effect on the probability of receiving contributions from individuals affiliated with labor or ideological interest groups. See Table A3 for the formal estimates.
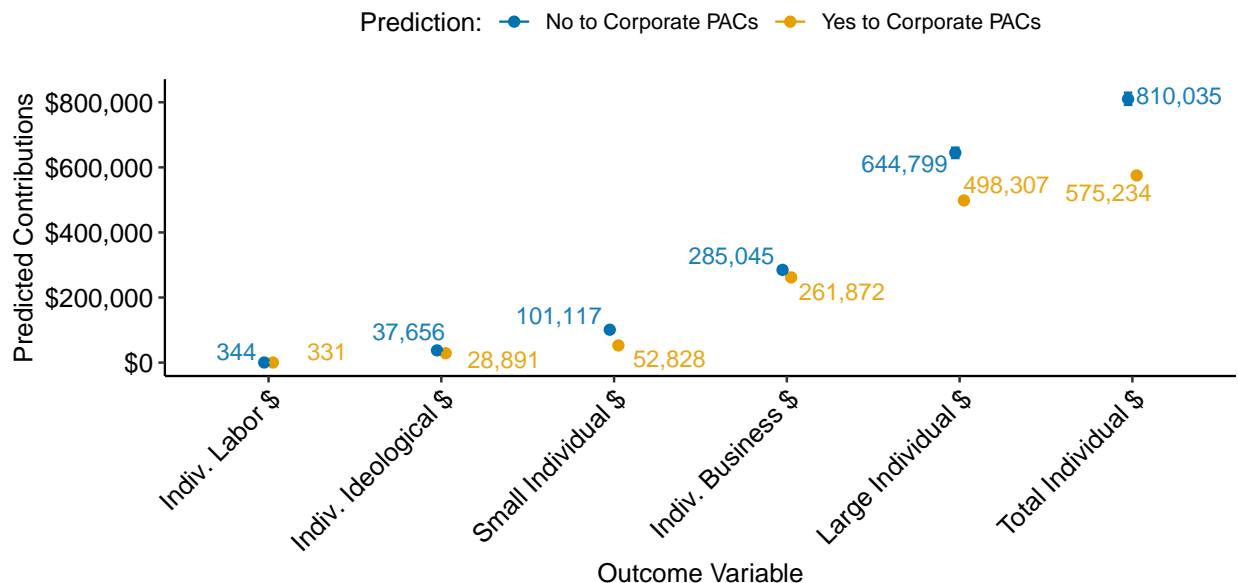
Figure 11: **Total Predicted Contributions from Individuals by Candidate Type.**
This figure shows that candidates who pledge to reject PAC contributions are predicted to
received more contributions from individuals affiliated with ideological and business interests,
as well as contributions less than and greater than $200.

6.4 Voting Effects

Finally, if candidates who reject corporate PAC contributions are expected to receive more
small-dollar contributions from individuals does do so also help candidates win elections?
When comparing, as in all previous models, candidates that did not accept corporate PAC
contributions with candidates who did only among those that won their elections, Figure 12
shows that there is no predicted difference in electoral outcomes of this strategy. Whether
using a candidate's vote share or the voting age population turnout, rejecting corporate PAC
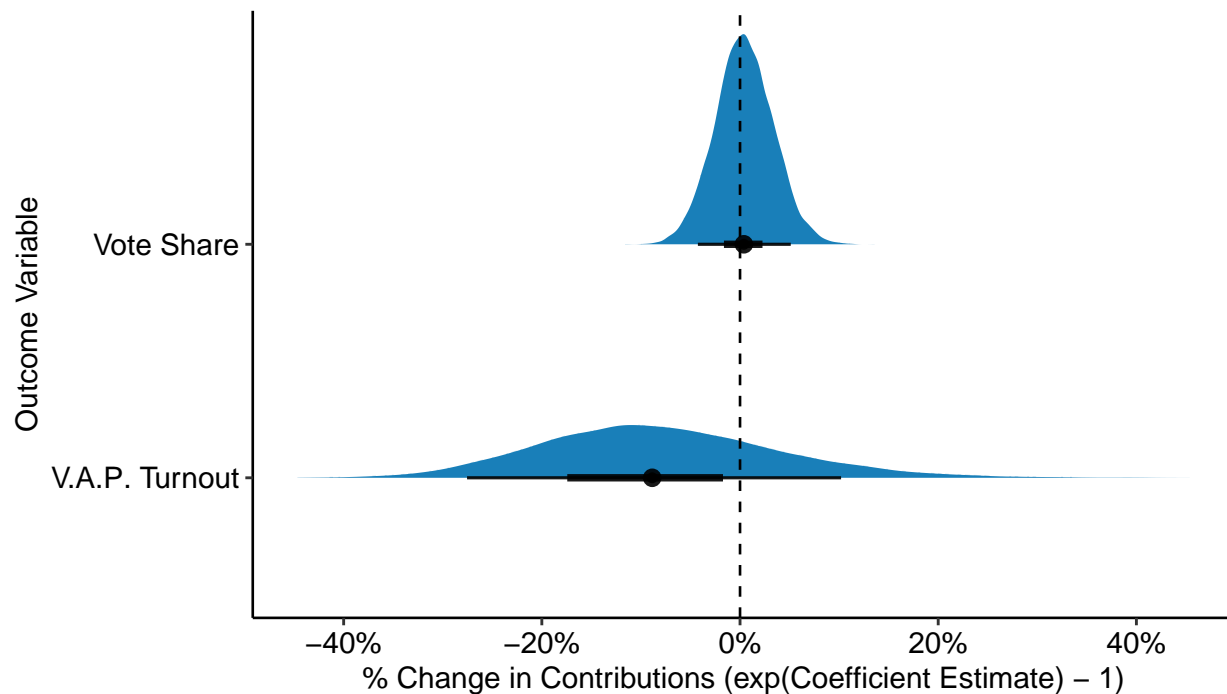contributions has no associational effects.

Figure 12: **The Effect of Rejecting Corporate PAC Contributions on Vote Share and Turnout.** These figures present the posterior distributions estimated for a candidate that pledges to reject corporate PAC contributions. The dot shows the median coefficient estimate, and the intervals show the 50% and 89% highest density intervals. This figure shows that rejecting corporate PAC contributions does not affect a candidate's vote percentage or turnout. See Table A4 for the formal estimates.

7   Conclusion

The recent trend of Congressional and presidential candidates rejecting corporate PAC contributions is an interesting campaign strategy since campaigns still require a large amount of money to be successful. Although candidates advertise this strategy as an attempt to finance their campaigns with small-dollar individual donations, it is unclear how it affects funding from other sources.

Using campaign finance data for a sample of 2018 Democratic Congressional candidates who won their election, I find that candidates who reject corporate PAC contributions are predicted to receive fewer contributions from business PACs, as expected. Conversely, these candidates are also predicted to receive more individual contributions less than $200 as they seem to have hoped for.

The strategy of refusing corporate PAC contributions is frequently framed as an attempt to minimize the influence of lobbyists and special interests, but it is unclear whether taking the pledge produces this outcome. Candidates who pursue this strategy are expected to receive more contributions from elected officials, individuals affiliated with ideological interest groups, individuals affiliated with businesses, and individual donations greater than $200. These alternative sources of campaign funds could be indicative of more strategic motivations for rejecting corporate PAC contributions.

In some sense, a candidate's decision to reject corporate PAC contributions is obviously strategic since they choose to retain the ability to receive donations from ideological, labor, and political party PACs. Candidates could have also deliberated with these organizations in deciding to announce their opposition to corporate PAC contributions with an agreement that these organizations would help a member's campaign if contributions from individuals fail to reach their expected values. Although directly testing for this strategic behavior is not possible with the data used in this study, the pattern of results are consistent with these possibilities.

Campaign finance reform will likely remain the subject of debate for many years to come. Voters hoping that the growing trend of refusing corporate PAC contributions represents a step towards a lessened corporate and wealthy-individual influence, will, unfortunately, need to reevaluate those hopes. Such a strategy could be a step toward these goals, but it is also associated with heightened activity from wealthy donors and corporate individuals.

On behalf of all authors, the corresponding author states that there is no conflict of interest.

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Appendix A   Results Tables

Table A1: The Effects of Pledging to Reject Corporate PAC contributions on Contributions from PACs

Predictor Variables	Total PAC $	Outcome Variable: Business PAC $	Ideological PAC $	Labor PAC $
Gamma Model (log link)				
Predictor of Interest				
No to Corporate PAC Contributions	−0.79*	−2.02*	−0.13*	−0.51*
	[−0.84; −0.74]	[−2.17; −1.88]	[−0.18; −0.06]	[−0.57; −0.45]
Adjustments				
New Member	−1.04*	−2.41*	0.68*	−0.41*
	[−1.07; −1.00]	[−2.49; −2.32]	[0.61; 0.74]	[−0.46; −0.36]
% of White Population in District	−0.00	−0.01*	−0.04*	0.01*
	[−0.00; 0.00]	[−0.01; −0.01]	[−0.05; −0.03]	[0.01; 0.02]
% of Black Population in District	−0.00	−0.00*	−0.04*	0.00
	[−0.01; 0.00]	[−0.01; −0.00]	[−0.05; −0.04]	[−0.01; 0.01]
% of Latino Population in District	−0.00	−0.01*	−0.03*	0.00
	[−0.01; 0.00]	[−0.01; −0.01]	[−0.03; −0.02]	[−0.00; 0.01]
% of Asian Population in District	−0.02*	−0.01*	−0.05*	−0.01*
	[−0.02; −0.02]	[−0.02; −0.01]	[−0.06; −0.04]	[−0.01; −0.00]
% of District Pop. with Bachelors Degree	−0.01*	−0.01*	0.00	−0.01*
	[−0.01; −0.01]	[−0.01; −0.01]	[−0.00; 0.01]	[−0.02; −0.01]
% of District Vote for Clinton in 2016	−0.02*	−0.03*	−0.02*	0.01*
	[−0.02; −0.01]	[−0.03; −0.03]	[−0.03; −0.02]	[0.01; 0.02]
% of District Vote for Dem. House Candidates in 2016	0.01*	0.01*	−0.00	−0.00*
	[0.00; 0.01]	[0.01; 0.01]	[−0.00; 0.00]	[−0.00; −0.00]
log(Voting Age Population in District)	0.15	−0.05	1.32*	0.07
	[−0.03; 0.33]	[−0.28; 0.18]	[0.83; 1.79]	[−0.18; 0.30]
log(Median Household Income)	0.64*	0.59*	0.29*	0.02
	[0.57; 0.72]	[0.50; 0.69]	[0.10; 0.49]	[−0.08; 0.13]
Intercept	13.33*	12.93*	10.07*	11.67*
	[13.32; 13.34]	[12.92; 12.95]	[10.04; 10.10]	[11.66; 11.69]
Dispersion Parameter	2514.54*	2363.02*	974.90*	1018.48*
	[2475.14; 2554.93]	[2323.03; 2400.76]	[951.17; 1000.97]	[992.44; 1043.38]
Binomial Model (Logit Link)				
Predictor of Interest				
No to Corporate PAC Contributions	0.24	1.41*	−0.13	−0.00
	[−1.07; 1.54]	[0.43; 2.29]	[−1.35; 1.14]	[−0.20; 0.20]
Adjustments				
New Member	−0.81	0.76	0.24	−0.01
	[−2.19; 0.43]	[−0.17; 1.69]	[−0.89; 1.40]	[−0.18; 0.16]
Intercept	−3.56*	−3.34*	−3.54*	−3.70*
	[−4.33; −2.87]	[−4.00; −2.70]	[−4.28; −2.85]	[−3.77; −3.63]
Number of Observations	167	167	167	167

Notes: Models are estimated using zero-augmented Gamma likelihoods. Analyses use four Markov chain Monte Carlo (MCMC) chains at 10,000 iterations each with a warmup period of 5,000 samples using the Hamiltonian Monte Carlo algorithm. All chains indicate convergence with every R̂ value being less than 1.01. Model coefficients are estimated with weakly informative priors. 89% highest density intervals shown in brackets below each coefficient. * indicates that 0 is outside 89% highest posterior density interval.

Table A2: The Effects of Pledging to Reject Corporate PAC contributions on Contributions from Party Organizations

Predictor Variables	Outcome Variable:		
	Leadership PAC $	Candidate Committee PAC $	Party Committee $
Gamma Model (log link)			
Predictor of Interest			
No to Corporate PAC Contributions	−0.23*	0.12*	−0.08
	[−0.31; −0.15]	[0.02; 0.22]	[−0.22; 0.04]
Adjustments			
New Member	1.24*	0.63*	0.04
	[1.14; 1.34]	[0.51; 0.75]	[−0.11; 0.18]
% of White Population in District	−0.07*	−0.02	0.51*
	[−0.08; −0.06]	[−0.04; 0.00]	[0.43; 0.58]
% of Black Population in District	−0.08*	−0.01	0.53*
	[−0.09; −0.07]	[−0.03; 0.00]	[0.45; 0.61]
% of Latino Population in District	−0.07*	−0.01	0.54*
	[−0.08; −0.06]	[−0.03; 0.01]	[0.47; 0.62]
% of Asian Population in District	−0.11*	−0.02	0.49*
	[−0.13; −0.10]	[−0.04; 0.00]	[0.39; 0.60]
% of District Pop. with Bachelors Degree	−0.02*	−0.02*	0.01
	[−0.03; −0.02]	[−0.03; −0.02]	[−0.01; 0.02]
% of District Vote for Clinton in 2016	−0.01*	−0.02*	−0.13*
	[−0.02; −0.00]	[−0.02; −0.01]	[−0.15; −0.10]
% of District Vote for Dem. House Candidates in 2016	−0.01*	−0.01*	−0.00
	[−0.02; −0.01]	[−0.01; −0.01]	[−0.01; 0.00]
log(Voting Age Population in District)	3.34*	2.39*	−0.41
	[2.71; 3.93]	[1.70; 3.07]	[−2.04; 1.22]
log(Median Household Income)	1.42*	0.74*	−0.07
	[1.13; 1.71]	[0.41; 1.05]	[−0.79; 0.66]
Intercept	9.30*	8.58*	6.61*
	[9.24; 9.35]	[8.53; 8.64]	[6.45; 6.79]
Dispersion Parameter	1113.08*	572.91*	68.92*
	[1087.71; 1141.14]	[553.86; 591.51]	[62.54; 75.63]
Binomial Model (Logit Link)			
Predictor of Interest			
No to Corporate PAC Contributions	0.13	0.41	−0.01
	[−0.89; 1.08]	[−0.48; 1.32]	[−0.80; 0.83]
Adjustments			
New Member	−0.55	−0.35	−1.13*
	[−1.54; 0.36]	[−1.24; 0.48]	[−1.87; −0.41]
Intercept	−2.05*	−1.92*	2.00*
	[−2.47; −1.61]	[−2.33; −1.51]	[1.58; 2.42]
Number of Observations	167	167	167

-2

Notes: Models are estimated using zero-augmented Gamma likelihoods. Analyses use four Markov chain Monte Carlo (MCMC) chains at 10,000 iterations each with a warmup period of 5,000 samples using the Hamiltonian Monte Carlo algorithm. All chains indicate convergence with every R̂ value being less than 1.01. Model coefficients are estimated with weakly informative priors. 89% highest density intervals shown in brackets below each coefficient. * indicates that 0 is outside 89% highest posterior density interval.

Table A3: The Effects of Pledging to Reject Corporate PAC contributions on Contributions from Individuals

-2

Predictor Variables	Small-dollar $	Large-dollar $	Total Indiv. $	Ideological Indiv. $	Business Indiv. $	Labor Indiv. $
				Outcome Variable:		
Gamma Model (log link)						
Predictor of Interest						
No to Corporate PAC Contributions	0.65*	0.26*	0.34*	0.27*	0.08*	0.04
	[0.61; 0.69]	[0.24; 0.28]	[0.32; 0.36]	[0.21; 0.32]	[0.05; 0.12]	[−0.20; 0.28]
Adjustments						
New Member	0.99*	0.63*	0.69*	0.63*	0.14*	1.07*
	[0.94; 1.04]	[0.60; 0.66]	[0.66; 0.71]	[0.56; 0.70]	[0.10; 0.18]	[0.74; 1.39]
% of White Population in District	−0.04*	−0.01*	−0.01*	−0.06*	−0.00	−0.09*
	[−0.04; −0.03]	[−0.01; −0.00]	[−0.01; −0.01]	[−0.07; −0.05]	[−0.01; 0.00]	[−0.13; −0.06]
% of Black Population in District	−0.08*	−0.02*	−0.03*	−0.08*	−0.01*	−0.12*
	[−0.09; −0.08]	[−0.02; −0.02]	[−0.03; −0.02]	[−0.09; −0.07]	[−0.02; −0.01]	[−0.16; −0.09]
% of Latino Population in District	−0.04*	0.00	−0.00	−0.04*	0.01*	−0.10*
	[−0.04; −0.03]	[−0.00; 0.01]	[−0.00; 0.00]	[−0.05; −0.04]	[0.00; 0.01]	[−0.13; −0.07]
% of Asian Population in District	−0.06*	−0.02*	−0.02*	−0.10*	−0.02*	−0.11*
	[−0.06; −0.05]	[−0.03; −0.02]	[−0.03; −0.02]	[−0.11; −0.09]	[−0.02; −0.01]	[−0.16; −0.06]
% of District Pop. with Bachelors Degree	−0.01*	−0.02*	−0.01*	−0.03*	−0.02*	0.05*
	[−0.01; −0.01]	[−0.02; −0.01]	[−0.02; −0.01]	[−0.03; −0.02]	[−0.02; −0.01]	[0.03; 0.07]
% of District Vote for Clinton in 2016	0.00*	−0.01*	−0.00*	0.01*	−0.01*	0.00
	[0.00; 0.01]	[−0.01; −0.00]	[−0.00; −0.00]	[0.01; 0.01]	[−0.01; −0.01]	[−0.01; 0.02]
% of District Vote for Dem. House Candidates in 2016	−0.02*	−0.01*	−0.01*	−0.02*	−0.01*	0.04*
	[−0.02; −0.01]	[−0.01; −0.01]	[−0.01; −0.01]	[−0.02; −0.02]	[−0.01; −0.01]	[0.03; 0.05]
log(Voting Age Population in District)	−1.01*	0.28*	0.14	2.06*	1.15*	−2.69*
	[−1.40; −0.62]	[0.10; 0.45]	[−0.02; 0.32]	[1.63; 2.52]	[0.92; 1.36]	[−5.29; −0.15]
log(Median Household Income)	1.70*	2.14*	2.02*	3.67*	2.35*	−1.17*
	[1.56; 1.83]	[2.07; 2.21]	[1.95; 2.09]	[3.47; 3.86]	[2.25; 2.44]	[−1.97; −0.40]
Intercept	10.87*	13.12*	13.26*	10.27*	12.48*	5.80*
	[10.84; 10.91]	[13.11; 13.13]	[13.25; 13.28]	[10.23; 10.31]	[12.46; 12.49]	[5.63; 5.99]
Dispersion Parameter	2269.58*	3737.15*	4093.77*	1589.96*	2658.35*	91.68*
	[2230.23; 2305.61]	[3689.42; 3787.57]	[4042.55; 4143.86]	[1559.06; 1621.54]	[2617.04; 2699.94]	[84.19; 98.85]
Binomial Model (Logit Link)						
Predictor of Interest						
No to Corporate PAC Contributions				−0.82		−0.38
				[−2.15; 0.41]		[−1.07; 0.38]
Adjustments						
New Member				−0.50		−0.17
				[−1.64; 0.60]		[−0.79; 0.52]
Intercept				−2.66*		0.84*
				[−3.20; −2.14]		[0.53; 1.14]
Number of Observations	167	167	167	167	167	167

Notes: Models are estimated using either a zero-augmented Gamma likelihood or a Gamma likelihood. Analyses use four Markov chain Monte Carlo (MCMC) chains at 10,000 iterations each with a warmup period of 5,000 samples using the Hamiltonian Monte Carlo algorithm. All chains indicate convergence with every R̂ value being less than 1.01. Model coefficients are estimated with weakly informative priors. 89% highest density intervals shown in brackets below each coefficient. * indicates that 0 is outside 89% highest posterior density interval.

Table A4: The Effects of Pledging to Reject Corporate PAC contributions on Voter Support

| | **Outcome Variable:** | |
Predictor Variables	Candidate Vote %	Voting Age Population Turnout %
Gamma Model (log link)		
Predictor of Interest		
No to Corporate PAC Contributions	0.00	−0.09
	[−0.04; 0.05]	[−0.30; 0.12]
Adjustments		
New Member	−0.09*	0.14
	[−0.13; −0.04]	[−0.08; 0.35]
% of White Population in District	0.00	−0.01
	[−0.00; 0.01]	[−0.03; 0.02]
% of Black Population in District	0.00	−0.03*
	[−0.00; 0.01]	[−0.05; −0.00]
% of Latino Population in District	0.00	−0.03*
	[−0.00; 0.01]	[−0.06; −0.01]
% of Asian Population in District	0.00	−0.02
	[−0.00; 0.01]	[−0.05; 0.01]
% of District Pop. with Bachelors Degree	0.00	−0.02*
	[−0.00; 0.00]	[−0.03; −0.00]
% of District Vote for Clinton in 2016	0.01*	0.04*
	[0.01; 0.01]	[0.02; 0.05]
% of District Vote for Dem. House Candidates in 2016	0.00	−0.01*
	[−0.00; 0.00]	[−0.02; −0.00]
log(Voting Age Population in District)	0.02	−1.74*
	[−0.27; 0.32]	[−3.14; −0.34]
log(Median Household Income)	−0.10	0.73*
	[−0.21; 0.00]	[0.17; 1.28]
Intercept	4.22*	3.28*
	[4.20; 4.24]	[3.19; 3.36]
Dispersion Parameter	0.79*	8.67*
	[0.65; 0.94]	[7.14; 10.40]
Number of Observations	167	167

-2

Notes: Models are estimated using a Gamma likelihood with a log link function. Analyses use four Markov chain Monte Carlo (MCMC) chains at 8,000 iterations each with a warmup period of 3,000 samples using the Hamiltonian Monte Carlo algorithm. All chains indicate convergence with every R̂ value being less than 1.01. Model coefficients are estimated with weakly informative priors. 89% highest density intervals shown in brackets below each coefficient. * indicates that 0 is outside 89% highest posterior density interval.

Appendix B   Prior Simulations

(a) Priors for Model Intercepts

(b) Priors for Model Slopes

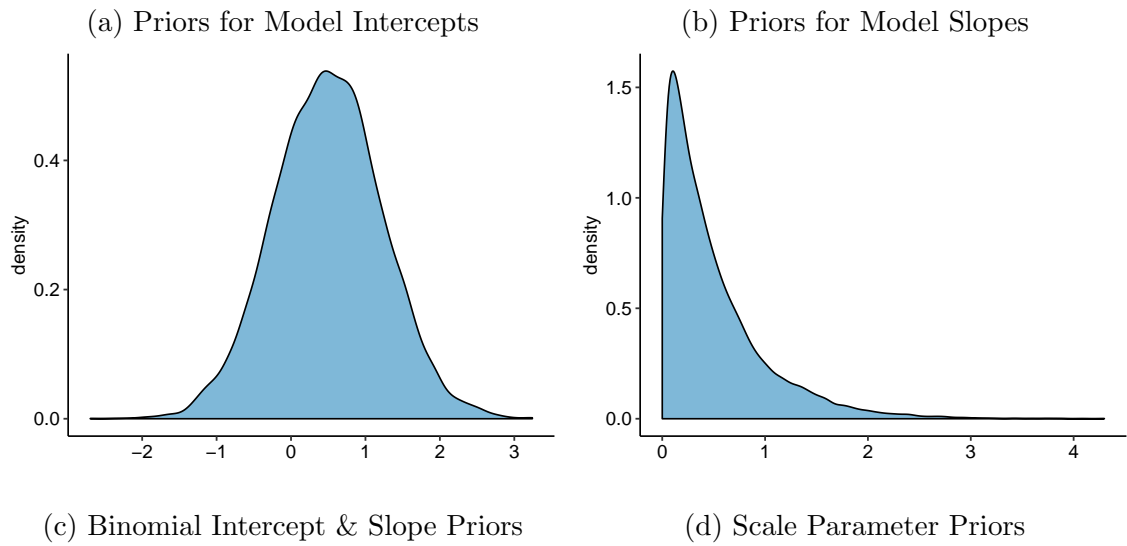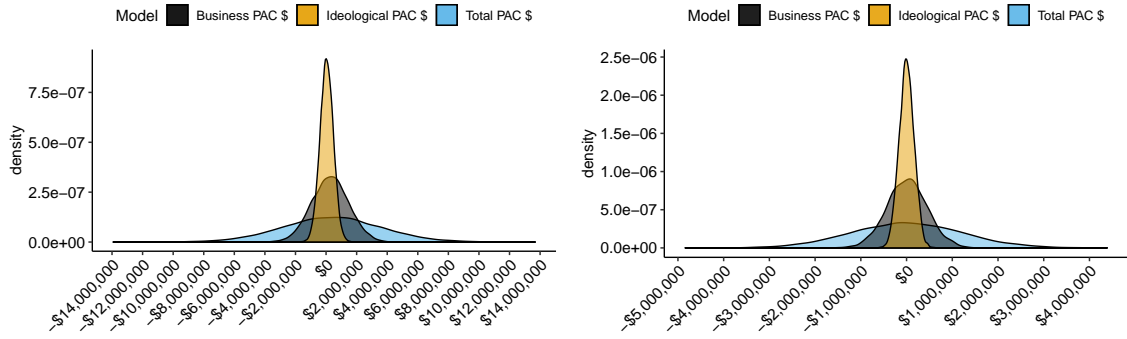(c) Binomial Intercept & Slope Priors

(d) Scale Parameter Priors

Figure 13: **Priors for Parameters in PAC Contribution Models.**

(a) Priors for Model Intercepts

(b) Priors for Model Slopes

(c) Binomial Intercept & Slope Priors
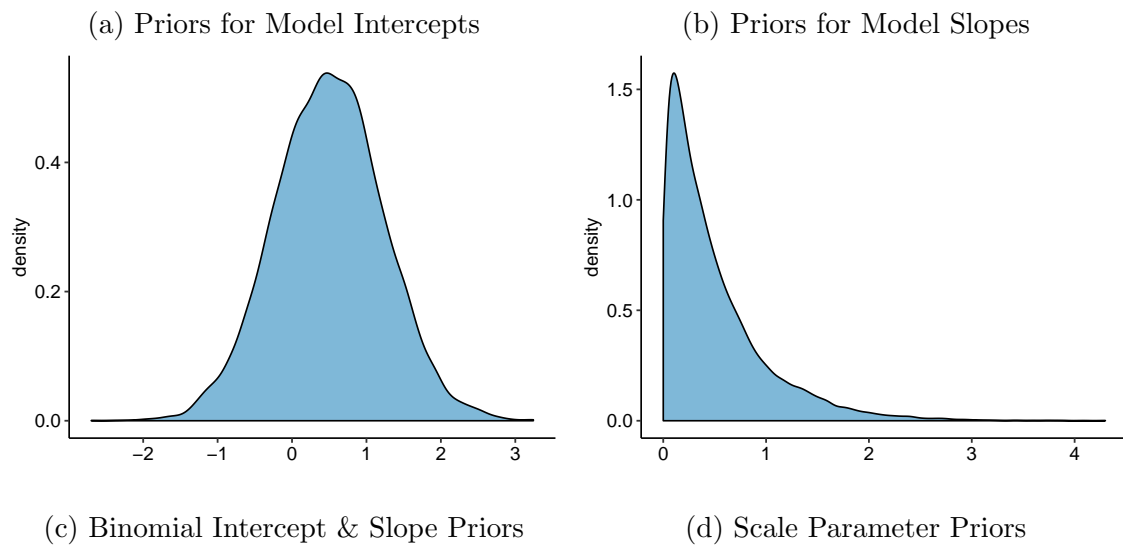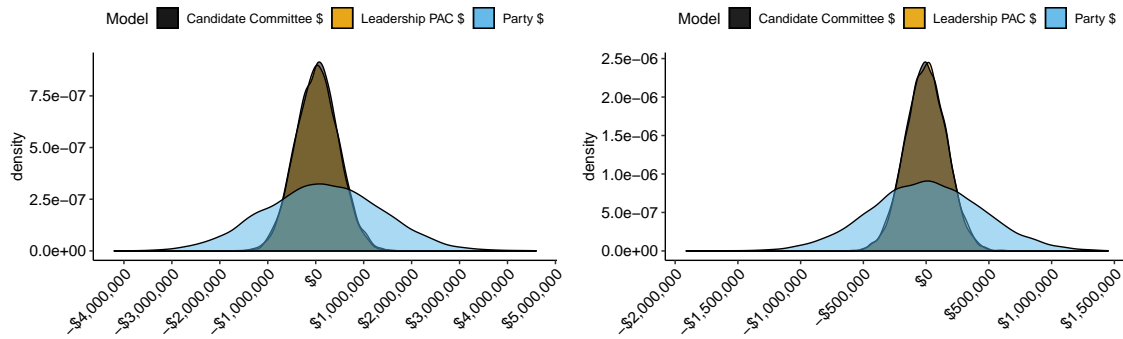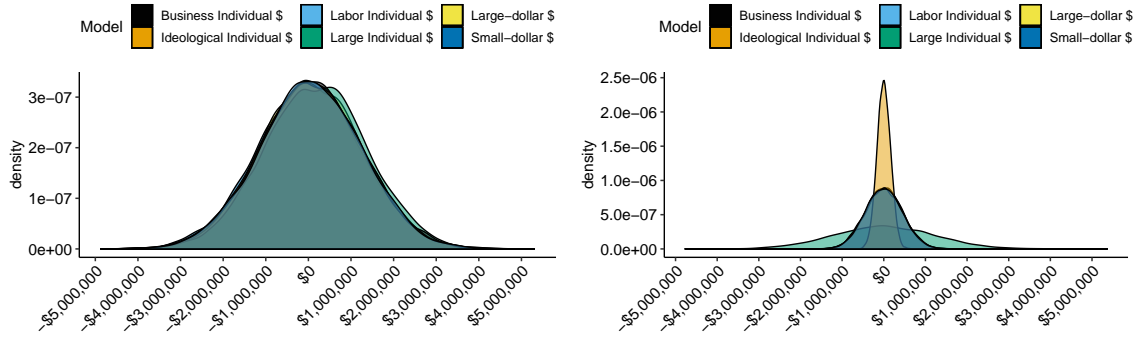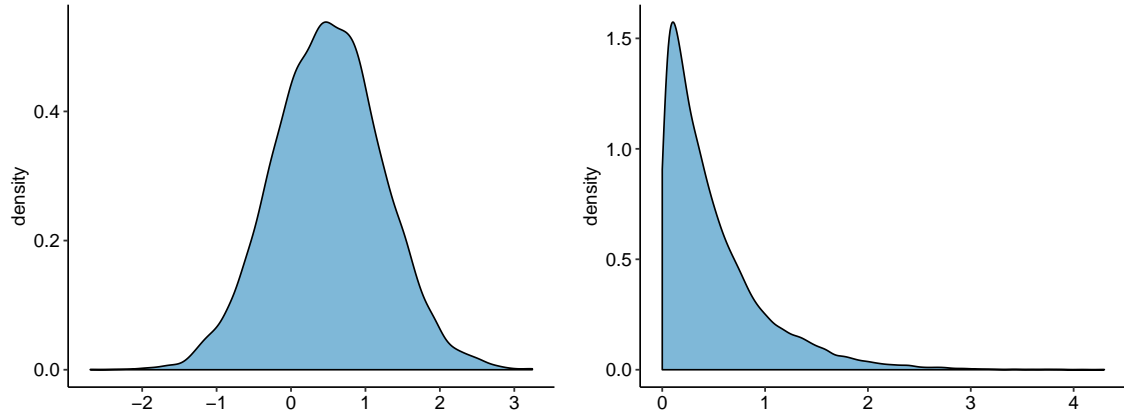
(d) Scale Parameter Priors

Figure 14: **Priors for Parameters in Political Party Contribution Models.**
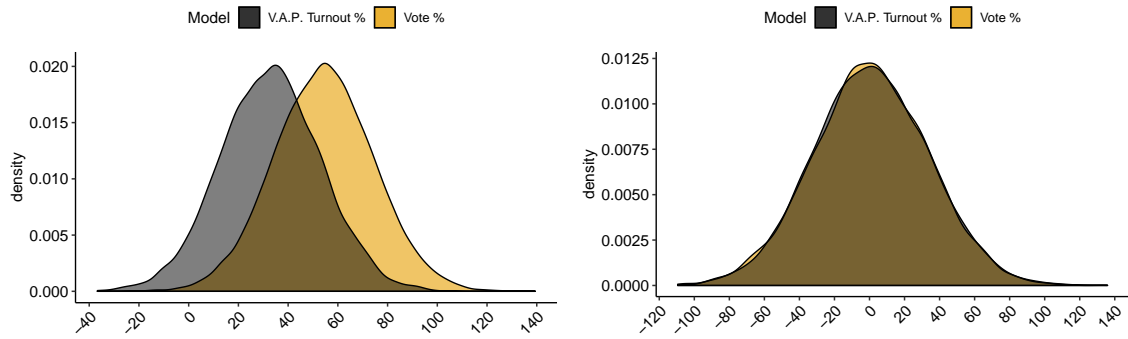
(a) Priors for Model Intercepts

(b) Priors for Model Slopes
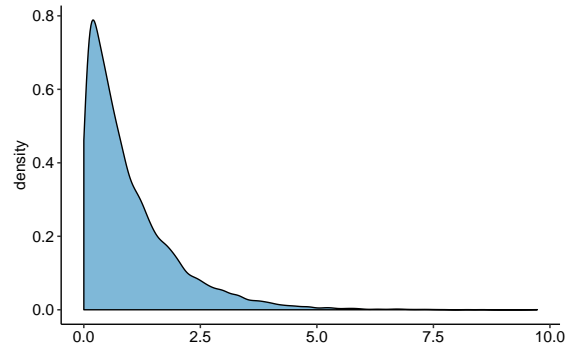
(c) Binomial Intercept & Slope Priors

(d) Scale Parameter Priors

Figure 15: **Priors for Parameters in Individual Contribution Models.**

(a) Priors for Model Intercepts

(b) Priors for Model Slopes

(c) Scale Parameter Priors

Figure 16: **Priors for Parameters in Vote Models.**