Self-Finance is Not Strategic:
Data from the 1998-2008 Gubernatorial Elections

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Abstract

Several studies have shown that campaign donors choose strategically which candidates to support. That is, if a potential donor's most preferred candidate has little chance of victory, that donor will probably give her money strategically to a less preferred but more viable candidate. I argue, however, that the theoretical logic supporting these findings applies only to traditional (external) campaign contributions, not to self-financed contributions. Candidates appear to pay little or no attention to the strategic context when deciding whether to contribute money to their own campaigns. Understanding this critical distinction between externally financed and self-financed contributions may help analysts better understand the effects of campaign spending on election results.

I thank Katrina Smith Cammack for her expert research assistance. Faults remain my own.

Are self-financed contributions by candidates to their own campaigns strategic? Abundant research has shown that traditional campaign donors respond to the strategic environment when deciding whether to give their hard-earned dollars to a candidate. That is, campaign donors don't thoughtlessly give away money to whichever candidate they agree with most. Instead, they also consider each candidate's potential for winning. No matter how much a donor agrees with a candidate, she will not waste her money on a hopeless candidate. Campaign donors are "sharply responsive" to these sorts of strategic considerations (Jacobson 2004, 165-6).

But although previous research has painted a detailed picture of how traditional donors behave, we know very little about a different kind of campaign donor: Candidates who donate to their own campaigns. It is not at all clear that the strategic theories used to explain traditional campaign donations also apply to self-financed donations. Indeed, it may be that self-finance decisions result from an entirely different decision process than the traditional donor decisions that previous researchers have studied.

In the pages that follow, I argue that self-financers are different from traditional campaign donors: Unlike traditional donors, self-financers are not strategic. My argument does not imply that self-financers are irrational, only that their rational decisions to contribute money to their own campaigns are driven primarily by non-political factors. I test my arguments by examining campaign finance data from U.S. gubernatorial elections held between 1998 and 2008. I find that "external" financing totals—that is, money raised from traditional donors—can be predicted well with political variables; by contrast, I find that self-financing totals have almost no relationship with the same political variables. This pattern is strong evidence that self-financing decisions are not strategic.

Motivations to Contribute Money

Traditional theories of campaign donor behavior focus on the costs and benefits to potential donors of contributing to a particular candidate. Candidates give money to a candidate in hopes of receiving some benefit *B*. This hoped-for benefit may vary from one donor to the next, although Francia et al. (2003) show that most donors can be classified into one of two general types. First, "investors" give money to "establish or maintain access to policymakers" (p 160); they are less concerned about ideology than with maintaining lobbying access to elected officials. Investor-type donors contribute to ensure that their lobbyist's phone calls get returned. "Ideologues," by contrast, seek to change the face of government by supporting like-minded partisans in competitive races. Unlike investors, ideologue-type donors contribute to help candidates they agree with to win. For most donors, then, the anticipated benefit of donating is either lobbyist access or ideological change.

Donors balance these potential benefits against the probability *p* that their contribution will help them achieve whatever benefit they seek. For "investors," this requires that they give their money to the winner and not to the loser. As such, investor-type donors often give money to lopsidedly strong candidates (usually incumbents) of either party to ensure that they remain on the winner's good side. By contrast, ideologue-type donors avoid giving money to candidates in lopsided races. Instead, they "target more of their contributions to candidates in competitive races" in hopes of influencing the outcome of the election and, as a result, the laws that elected officials eventually enact (Francia et al. 2003, 160).

In addition to considering these factors, potential donors also consider the opportunity costs *C* of parting with their cash. Because money is a scarce resource, people do not aimlessly give it away. Rather, they consider what they might do with that money instead if they chose not

to give it away. The cost of giving away $10 is not the same for everybody. For an extremely poor person, giving $10 to a candidate may mean skipping one or two meals; for an extremely wealthy person, giving $10 to a candidate may mean putting ten fewer dollars into an already-healthy retirement fund. Thus, *C* represents the utility cost of contributing, not the financial cost, although we would generally expect the utility costs to correlate strongly with the financial costs.

These concepts can be represented with a simple utility equation, shown below. The utility *U* of giving to candidate *A* reflects the benefits *B* of making the donation weighted by the probability *p* that the donation will actually produce the intended benefits, less the opportunity costs *C* of parting with one's money. This utility equation resembles other models used to explain voting, candidate emergence, and other strategic political behaviors (Black 1972; Jacobson and Kernell 1983; Riker and Ordeshook 1968; Steen 2006, 9). A donor contributes to candidate *A* if the utility of doing so is positive:

$$U_A = p \times B - C$$

If potential campaign donors were sincere instead of strategic, we would expect them to consider only *B* and *C*, not *p*. For example, a sincere "ideologue" donor would look at the thousands of candidates running for office across the country, and she would target as many dollars as she could afford toward whichever of those candidates held views closest to her own. In reality, though, campaign donors are more sophisticated than that. Not only do potential donors consider the potential benefit *B* of giving to each candidate, they also consider the probability *p* that that making a donation will determine whether they actually get *B* in the end. Thus, an "ideologue" donor would rather give money to a less perfect candidate in a tight race than to a perfect candidate in a hopeless race (cf. Jacobson and Kernell 1983, 35-48).

The rational calculus given above neatly summarizes a widely accepted explanation of how potential donors decide whether to give money to a candidate. The equation implies that candidates in highly competitive races will receive donations (especially from ideologues seeking to influence the outcome), strong candidates with weak opponents will receive donations (especially from investors seeking to preserve lobbying access), and hopeless candidates will not receive many donations at all.

As a whole, these theoretical arguments from previous work lead to the general prediction that campaign donors will be more willing to supply money to competitive candidates than to uncompetitive candidates. On a more operational level, then, we would expect any variables that influence a candidate's viability to also influence that candidate's fundraising efforts. For example, incumbent governors enjoy significant reelection advantages (Ansolabehere and Snyder 2002; Tompkins 1984; Turett 1971), so we would expect donors to be less willing to give their money to a candidate opposing a sitting governor than to a candidate in an open race. Likewise, if one political party is weaker than the other in a given state, we would expect donors to prefer giving their money to a candidate from the stronger party rather than give money to a candidate who is disadvantaged by his party's weakness. In addition, we might expect donors to prefer giving money to experienced, proven candidates rather than to political newcomers (cf. Jacobson and Kernell 1983, 35-48).

When it comes to externally-financed donations, then, previous work would predict that campaign contributions will correlate strongly with each candidate's general viability. For precision, we can state the predictions given above in a series of specific hypotheses:

- H1: Candidates will raise less money if they are challenging a sitting incumbent than if

they are competing in an open race.

- H2: To the extent that the incumbent governor is popular, donors will be even less willing to give money to a challenging candidate.
- H3: Candidates will raise less money if they belong to a weak party than if they belong to a strong party.
- H4: Candidates with political experience will raise more money than political newcomers.

Motivations to Self-Finance

Although previous research has produced a well-developed theory of how traditional campaign donors behave, it is not obvious that this widely-accepted strategic logic also applies to self-finance decisions. To see more clearly why this might be the case, consider the strategic process described above not as a single decision but rather as a two-stage process. First, donors must decide whether to give away any money at all; second, they must decide which specific candidates to give their money to. This distinction is, of course, somewhat artificial. Donors simultaneously decide whether the expected benefits of giving to a particular candidate justify the costs, thus they make both of these decisions at the same time. Still, conceptualizing these two steps as separate decisions exposes a difference between traditional donors and self-financing donors.

In the first step, a potential donor considers the value of her money. An extremely poor person probably values her money extremely highly, as parting with it may mean missing a few meals. Even for middle-class Americans, money is scarce enough that most would rather buy a television or make a car payment than contribute to a political campaign. As a result, campaign

contributions tend to come from the wealthiest classes who have the most cash to spare. A major survey of Congressional campaign donors found that only 19% of habitual campaign donors earn less than $100,000 annually; meanwhile, almost half earn $250,000 or more annually (Francia et al. 2003, 28). To put these figures into perspective, note that 88% of households reported less than $100,000 annual income in the 2000 U.S. Census and only 2.4% reported income above $200,000. Income is the best predictor of campaign donor activity (Brady, Verba, and Schlozman 1995).

Note that this first step does not involve any political strategy. Personal wealth is not a political variable, yet it is the major determinant of campaign donor activity. All the political strategies discussed in the previous section arise in the second step of the process, not in the first. That is, the political strategies arise when donors decide which specific candidates to give their money to—not when they decide whether to contribute any money at all. If a donor made only the first decision (i.e., to use some money for political purposes) but was never confronted with the second decision (i.e., which of many candidates to give the money to) then we would have no reason to expect campaign donors to react strategically to political stimuli.

Because of this crucial point, it may be that the traditional theories about strategic donors do not apply to self-financing decisions. After all, self-financing candidates are perhaps the only type of campaign donor that makes the first decision but not the second. Like traditional donors, self-financing "donors" must first ask whether they have enough spare cash to direct some towards politics. But unlike traditional donors, self-financing donors never seriously confront the second question; if they are going to contribute money to any campaign, then they may as well give most of it to their own campaign. In terms of the utility equation presented earlier, we could say that the benefits B to a wealthy candidate of putting himself in office so outweigh the

benefits of putting someone else in office as to render the decision foregone regardless of the value of p.[1] As such, self-financing decisions are strongly predicted by personal wealth (Steen 2006), but not necessarily by political considerations.

At this point, a word of clarification is in order. In her seminal book on the effects of self-financing in Congressional campaigns, Steen (2006) argued that candidates do use self-financing strategically. However, she had a different type of strategic decision in mind than I discuss here. When Steen spoke of strategic self-financing, she found that self-financers are strategic when it comes to the timing of their contributions: "Indeed, time is the only feature of the strategic environment that consistent affects self-financing by many kinds of candidates" (2006, 44). In particular, self-financers tend to make most of their contributions early on in hopes of jumpstarting their campaigns (cf. Jacobson 2004, 85). Some self-financers make additional contributions shortly before election day in hopes of a last-minute boost. These findings are not inconsistent with my argument, though. Steen's book does not directly examine whether the overall decision to self-finance is strategic; rather, Steen's work shows that once a candidate has made a decision to self-finance, he uses those self-financed resources to maximal effect.

My central claim, then, is that traditional theories of campaign donor behavior give us no reason to expect self-financing decisions to be strategic responses to political factors. This claim is readily testable. If, contrary to my expectations, candidates do act strategically when deciding to contribute to their own campaigns, then we should see the same patterns when examining self-finance totals as when examining "external" finance totals. That is, Hypotheses 1 through 4 should also apply to self-financed contributions. Variables related to seat status, incumbent

[1] Moreover, the candidate is unlikely to perceive p as small. If the candidate has already decided that his odds of winning are good enough to warrant running in the first place, then he almost certainly perceives that p is high enough to justify giving his money to himself and not to another candidate.

popularity, party strength, and candidate quality should predict self-financing levels just as strongly as they predict external-financing levels. By contrast, if self-financing decisions are not strategic, then these variables should not apply. I expect Hypotheses 1 through 4 to operate on external finance levels but not on self-finance levels. I turn now to an empirical test of this proposition.

Empirical Analysis

I use data from all gubernatorial elections held between 1998 and 2008 to test these claims.[2] For each race, I have used campaign contributions data from the National Institute on Money in State Politics to calculate each major-party candidate's external- and self-finance totals. I predict each type of finance as a distinct dependent variable in separate ordinary least squares regressions. If self-financed contributions are as strategic as externally-financed contributions, then we should be able to predict both spending variables equally well with the same set of independent variables.

Previous work has shown that strategic financing patterns are more apparent when examining challenger finances than when examining incumbent finances. Incumbents are generally strong enough candidates that they can raise as much money as they need from donors, rendering their finance levels less responsive to political context; instead, their fundraising totals correlate more strongly with their need for cash (as determined by their challenger's strength) than with the strategic variables discussed above (Jacobson 2004, 98). To prevent these dynamics from complicating my analysis, I omit incumbents from the analysis entirely. Thus, in incumbent-held seats, I predict the challenger's finance levels, not the incumbent's. To make my

[2] There were 151 gubernatorial elections held during this period. In only 9 cases did missing data force me to drop an observation.

empirical comparison between incumbent-held seats and open seats as valid as possible, I take the additional step of omitting open-seat candidates from the incumbent's party. Thus, all my models predict finance levels for challengers to incumbents and for open-seat candidates from the challenging party—incumbents and incumbent-party candidates are omitted.

Table 1 summarizes the results of four linear regressions with standard errors cluster-corrected by state. In the first two (Models 1a and 1b), the dependent variable is the challenging candidate's external finance total; in the second two (Models 2a and 2b), the dependent variable is the challenging candidate's self-finance total. In all four regressions, the financing totals are measured in logged dollars. Because the incumbency approval variable severely restricts the sample size, I provide two one model for each outcome that includes it (Models 1a and 2a) and one that does not (Models 1b and 2b).

[Table 1 about here]

Hypotheses 1 through 4 imply an easily measurable set of strategic variables. If donors are strategic, then we would expect these variables to strongly predict campaign contribution totals. These strategic variables appear in the upper portion of Table 1. The first is a simple incumbency dummy. Given that incumbents have strong advantages when seeking reelection, we would expect strategic donors to prefer giving to open seat candidates rather than to candidates challenging an incumbent (see Hypothesis 1). In Models 1a and 1b, we do in fact observe this pattern. Traditional (external) campaign donors strongly prefer open seat candidates over challengers. By contrast, self-financing donors appear to take no account of their opponent's strength; there is not a statistically meaningful relationship between the presence of an incumbent and a candidate's self-finance totals in Models 2a and 2b.

We might expect these incumbency effects to be even stronger if the incumbent is popular (see Hypothesis 2). To test this, Models 1a and 2a control for the incumbent's approval margin, interacted with the incumbency dummy.[3] The incumbent's approval margin has no meaningful effect in open races, but it has a strong negative effect on external contributions in races where the incumbent is seeking reelection. At the margin, Model 1a predicts that a candidate will raise 51.8% more external funds if she is pursuing an open seat than if she is facing an incumbent with an even approval margin (i.e., 50% approval). For each percentage point rise in the incumbent's approval, Model 1a predicts that the challenger will raise 5.87% fewer dollars. External campaign donors respond strategically to the incumbent's strength when deciding whether to contribute to a challenger. Once again, however, there is no evidence that self-financers are similarly strategic. Candidates do not consider the incumbent's popularity when deciding whether to give money to their own campaigns.

If donors strategically avoid weak candidates, then we might expect them to avoid giving money to gubernatorial candidates whose party is weak in the state (see Hypothesis 3). To measure the state-level strength of each incumbent's party, I include that party's share of the two-party presidential vote. For gubernatorial elections held in non-presidential years, I calculate the linearly weighted average of the previous and future presidential contests. Models 1a and 1b present mixed results on this variable. From Model 1a, it appears that external donors do prefer to give to candidates from the stronger party. For every additional percentage point that the

[3] Approval data are from an updated version of the database first described in Beyle, Niemi, and Sigelman (2002), available at Beyle's website (http://www.unc.edu/~beyle/jars.html). Note that approval data are collected at different times and by different pollsters in each state. I use the average of all polls conducted in each state during the first six months of the election year. I use this time frame because it comes prior to the onset of major campaigning; it is therefore a measure of the incumbent's strength going into the election rather than a measure of the challenger's success in attacking the incumbent. Note that "approval margins" as used here are more accurately called "zero-centered approval ratings." To calculate true approval margins, I would need access to both approval and disapproval ratings, which many pollsters do not make available. Instead, I subtract 50 so that approval ratings below 50 become negative numbers.

incumbent governor's party won in the presidential election, the challenging gubernatorial candidate is expected to raise 2.03% fewer dollars. However, Model 1b does not return a statistically significant estimate. Thus, it is unclear how much party strength influences external financing. However, the results are not mixed when it comes to self-financing decisions. Neither Model 2a nor Model 2b provides evidence that self-financers take account of party strength.

The final strategic variable in Table 1 comes from Hypothesis 4. If campaign donors strategically prefer to give their money to stronger candidates than to weaker candidates, then it stands to reason that some measure of candidate quality ought to predict financing levels. I measure candidate quality using Squire's (1992) index. Unlike candidate quality variables developed by those who study Congressional elections, Squire's scale is specific to the gubernatorial context. Squire sought to develop a measure that could account for a non-incumbent's political experience within her state. For a candidate who has held previous political office, Squire balances the size of her previous constituency with her previous office's political significance. For example, even if a state legislator and a member of the U.S. House came from equally populous districts, Squire's index would award the member of Congress additional points on account of her office's higher position on the political ladder. Likewise, an elected attorney general receives a much higher score than an appointed one.[4]

Models 1a and 1b confirm that external donors are more willing to give their money to experienced candidates than to rookies. With other variables held at their means dummy

[4] Squire's index ranges from 0 (no political experience) through 600 (former governor or Senator), although most candidates cluster either in the low double-digits or in the upper half of the scale. As it happens, Squire's index correlates highly ($r=0.96$, $p<0.0001$) with a far more intuitive measure of candidate quality: The highest percentage of the state that the candidate had previously represented. The results described here can be obtained using either measure of candidate quality. To obtain Squire's index for each candidate, I employed a team of research assistants to search Lexis-Nexis news archives, various volumes of *Who's Who in American Politics*, and official websites to compile candidate biographical information for all major-party gubernatorial candidates during this period. These data were then coded using Squire's method

variables held at zero, Model 1a predicts that a former statewide executive (e.g. attorney general) will raise 52% more money than an otherwise identical political newcomer.[5] Yet again, however, there is no evidence that self-financers take similar account of their own viability when deciding whether to contribute to their own campaigns. Neither Model 2a nor 2b suggests a statistically meaningful relationship between candidate quality and self-financing.

The variables discussed so far can be thought of as supply-side variables—they capture the extent to which donors are willing to supply contributions to candidates, a function of the strategic environment. Table 1 also includes a few non-strategic demand-side variables to control for the amount of money needed in each race. For example, scholars of Senate elections have found that campaign contributions generally rise with population but at a decreasing marginal rate (Abramowitz and Segal 1992; Gerber 1998; Jacobson 1980, 1985). As such, I control here for each state's population, logged to account for its decreasing marginal effect.[6] Models 1a and 1b confirm that spending rises with population. Model 1a would predict that a 1% increase in state population would produce a 0.383% increase in external contributions. Interestingly, self-financed contributions are not responsive even to this basic constraint. It appears that self-financers choose to contribute to their campaign without regard for the size of the electorate that they must reach.

I also control for the opponent's campaign contribution totals. Like population, this is a demand-side variable—it helps estimate the candidate's need for additional funds by proxying for campaign intensity. Models 1a and 1b show that candidates do work to increase their fundraising efforts when they need to keep up with a well-financed opponent. In Model 1a, a 1%

[5] The attorney general has a quality score of 400; the newcomer's score is 0.
[6] State population data are annual Census estimates.

increase in the opponent's external finance leads to an expected 0.453% increase in the candidate's own external finance totals. As they do so, candidates pay far more attention to their opponent's external financing total than to their opponent's self-financing total.[7] By contrast, self-financed contributions do not appear to be an effort to match the opponent's spending. Self-financing levels have no relationship with opponent financing.

The final control variable is a simple partisan dummy indicating whether the incumbent governor is Republican or Democrat. This variable appears to have no bearing on fundraising totals. Candidates of either party raise similar amounts of money once other variables are taken into account.

Looking across all the models in Table 1, an interesting pattern emerges. External finance levels are sharply responsive to almost all variables in the model. On the supply side, strategic external donors are more willing to supply funds to candidates whom the political environment favors. That is, candidates raise more in open races than when facing an incumbent, especially if the incumbent is popular; candidates raise somewhat more if their party is strong in the state; and candidates raise more if they have more political experience. On the demand side, campaigns are sensitive to contextual factors when deciding how much money to try to raise. Candidates work harder to raise external funds when the population is larger or when the campaign is more intense. Almost all the variables in Models 1a and 1b have large, statistically significant effects.

By contrast, self-finance totals do not have a statistically meaningful relationship with any of the variables in these models. In addition, the overall fit (as measured by the R^2 statistic) in Models 2a and 2b is strikingly poor when compared to Models 1a and 1b. Self-financers

[7] The statistically significant effect of opponent self-financing in Model 1a has a small enough coefficient that it can be safely ignored. This estimate is the only part of Table 1 that changes when potential outliers are omitted (see text below). Omitting the three extreme self-financers renders opponent self-financing insignificant through Table 1.

contribute to their campaigns without regard for their chances of victory. Moreover, self-financers contribute to their campaigns with little regard for state population or campaign intensity. Steen has shown that self-financing rises rapidly with personal wealth (2006, 125); likewise, Francia et al. have found that contributions of any sort come mostly from the wealthy (2003). Combining their findings with my own, we can conclude that self-financing decisions are apparently based more on non-political variables (like personal wealth) than on political ones.

These results are not driven by outliers. In these data, 56% of candidates self-financed less than $10,000, 69% self-financed less than $100,000, and 85% self-financed less than $1,000,000. Only three candidates stand out as extreme self-financers: Doug Forrester self-financed $31.7 million against the equally well-heeled Jon Corzine,[8] Dick DeVos self-financed $35.5 million against Jennifer Granholm, and Tony Sanchez self-financed $54.5 million against Rick Perry. Omitting these three races does not change the pattern of results found in Table 1.[9]

In addition, these results are also not driven by low variance on the dependent variable in Models 2a and 2b. Although it is true that, on average, each candidate's external finance total far exceeds his self-finance total, there is still more than enough variance in both dependent variables to justify the sorts of analysis undertaken in Table 1. External finance (logged) has a median of 14.9, a range of 9.6, and a standard deviation of 1.6; self-finance (logged) has a median of 6.4, a range of 17.8, and a standard deviation of 6.1. Even with the extreme self-financers excluded, self-finance has a median of 6.2, a range of 16.7, and a standard deviation of 5.9. Lack of variance in the dependent variable is not producing the insignificant results in Models 2a and 2b.

[8] Corzine is not included in Table 1 because he was the candidate of the incumbent governor's party; see above.
[9] These results are available in an online appendix; Table A1 replicates Table 1 with these three extreme self-financers omitted.

Likewise, these results are not the result of my decision to pool open races together with incumbent-held seats. When challengers to incumbents are analyzed separately from open-seat candidates, the same basic patterns emerge.[10] (compare Tables A2 and A3 in the appendix). It appears, then, that there is not any methodological problem that is artificially driving the results reported here.

Conclusion

Repeated studies have shown that campaign donors act strategically when deciding which candidates to give their money to. Rather than give their money to an ideologically perfect candidate with no chance of winning, donors will strategically give their money instead to a less-preferred candidate in a more competitive situation. I have confirmed this general finding from the literature in Models 1a and 1b of Table 1.

However, I have not found any evidence that self-financing decisions are similarly strategic. In Models 2a and 2b, none of the political or contextual variables had any bearing on self-financing levels. Previous work has found that campaign donors tend to be far wealthier than average (Brady, Verba and Schlozman 1995; Francia et al. 2003); likewise, self-financers tend to be wealthier than average (Steen 2006). If personal wealth is indeed a major predictor of self-financing decisions, my findings suggest that it may be the only predictor.[11] Candidates pay little

[10] These specifications are available in an online appendix. Table A2 predicts challenger finance only in incumbent-held races; Table A3 predicts challenger finance only in open races (with candidates from both parties included). In all these models, the results are essentially the same as in Table 1. The most noticeable difference is that the decreased number of observations causes a few standard errors to rise, pushing a few estimates to borderline statistical significance.

[11] Unfortunately, personal wealth data are not readily available for gubernatorial candidates. At the same time, such data is not necessary for this analysis. Omitting a variable does not bias ordinary least squares regression unless it is correlated with both the dependent and independent variables. Although personal wealth is surely correlated with the dependent variable in Models 2a and 2b, it has no plausible correlation with any of the independent variables in these models. It can, therefore, be safely omitted.

attention to the political context when deciding whether to self-finance their campaigns.

These findings have potentially valuable methodological implications for those interested in estimating the causal effect of campaign spending on vote shares. Because external campaign contributions and election results both respond strongly to candidate viability and to the broader political context, the empirical relationship between campaign spending and vote shares is artificially inflated by unmeasured characteristics of the strategic environment. Unless analysts control perfectly for candidate viability and the political context, omitted variable bias will greatly inflate the apparent effect of campaign spending on vote shares. However, this methodological problem applies only in the correlation between *externally* financed spending and vote shares. Analysts interested in estimating the true, unbiased effect of spending on votes can profitably look at the effect of self-financed spending alone on votes. Unlike aggregate spending, self-financed spending is not influenced by the strategic environment. Thus, the relationship between self-financed spending and vote shares is not inflated by omitted variable bias. As an example of this approach, see my work elsewhere (Brown 2009).

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Table 1: Predicting Challenging Candidate's Finance Levels (Logged Dollars)

	External finance		**Self-finance**	
	Model 1a	Model 1b	Model 2a	Model 2b
Strategic factors				
Incumbent in race	-0.518**	-1.010**	2.270	0.964
	(0.129)	(0.183)	(1.577)	(1.159)
Incumbent's approval margin	-0.00971		0.0149	
	(0.00736)		(0.0768)	
× Incumbent in race	-0.0490**		-0.0593	
	(0.0137)		(0.0965)	
Strength of incumbent's party	-0.0203**	-0.0105	-0.0634	-0.0534
	(0.00639)	(0.00974)	(0.0880)	(0.0584)
Candidate quality (Squire's index)	0.00105*	0.00163**	-0.00246	-0.00473
	(0.000416)	(0.000493)	(0.00483)	(0.00328)
Non-strategic controls				
Population (logged)	0.383*	0.441**	1.271	0.287
	(0.180)	(0.164)	(1.067)	(0.949)
Opponent's external finance (logged)	0.453*	0.538**	-1.530	-0.434
	(0.178)	(0.170)	(1.053)	(0.974)
Opponent's self finance (logged)	-0.0321*	0.00609	0.188	0.0797
	(0.0152)	(0.0144)	(0.119)	(0.105)
Incumbent is a Republican	-0.0396	-0.429+	0.511	0.502
	(0.216)	(0.242)	(1.723)	(1.296)
Constant	3.646**	0.960	12.30	10.65
	(0.991)	(1.578)	(11.47)	(11.13)
Observations	88	142	88	142
R-squared (adjusted)	0.75 (0.72)	0.51 (0.49)	0.08 (-0.03)	0.04 (-0.01)

Cluster-corrected standard errors in parentheses. ** p<0.01, * p<0.05, + p<0.10 (two-tailed).

Online Appendix

(Note: I intend this brief appendix of alternative specifications to be available online, not as part of the published article. These tables are referenced in the article's footnotes.)

Table A1: Predicting Challenging Candidate's Finance (without Extreme Self-Financers)

	External finance		Self-finance	
Strategic factors				
Incumbent in race	-0.571**	-1.031**	2.017	0.672
	(0.125)	(0.189)	(1.606)	(1.154)
Incumbent's approval margin	-0.0101		0.0239	
	(0.00729)		(0.0764)	
× Incumbent in race	-0.0467**		-0.0617	
	(0.0138)		(0.0992)	
Strength of incumbent's party	-0.0191**	-0.00985	-0.100	-0.0842
	(0.00622)	(0.0100)	(0.0835)	(0.0534)
Candidate quality (Squire's index)	0.00106*	0.00162**	-0.00128	-0.00415
	(0.000414)	(0.000489)	(0.00446)	(0.00316)
Non-strategic controls				
Population (logged)	0.476**	0.517**	0.561	-0.310
	(0.158)	(0.146)	(1.141)	(0.949)
Opponent's external finance (logged)	0.363*	0.462**	-1.265	-0.214
	(0.160)	(0.154)	(1.141)	(0.987)
Opponent's self finance (logged)	-0.0191	0.0154	0.122	0.0249
	(0.0122)	(0.0123)	(0.129)	(0.107)
Incumbent is a Republican	-0.165	-0.496*	0.963	0.866
	(0.209)	(0.240)	(1.656)	(1.245)
Constant	3.636**	0.965	20.39+	17.65
	(0.983)	(1.649)	(11.82)	(11.14)
Observations	85	139	85	139
R-squared	0.77	0.52	0.08	0.04

Cluster-corrected standard errors in parentheses. ** p<0.01, * p<0.05, + p<0.10 (two-tailed).

Table A2: Predicting Challenger's Finance in Incumbent-Held Races (Logged Dollars)

	External finance		Self-finance	
Strategic factors				
Incumbent's approval margin	-0.0587**		-0.0427	
	(0.0104)		(0.0729)	
Strength of incumbent's party	-0.0231**	-0.0115	-0.0888	-0.102
	(0.00802)	(0.0141)	(0.0842)	(0.0688)
Candidate quality (Squire's index)	0.00118*	0.00236*	-0.00277	-0.00535
	(0.000525)	(0.000968)	(0.00653)	(0.00597)
Non-strategic controls				
Population (logged)	0.495*	0.406+	0.738	0.654
	(0.226)	(0.218)	(1.209)	(1.191)
Opponent's external finance (logged)	0.395+	0.553*	-0.542	0.165
	(0.206)	(0.223)	(1.174)	(1.047)
Opponent's self finance (logged)	-0.0325*	0.000364	0.267	0.271+
	(0.0140)	(0.0236)	(0.178)	(0.155)
Incumbent is a Republican	-0.0660	-0.701+	1.658	0.988
	(0.260)	(0.359)	(2.018)	(1.599)
Constant	2.445*	0.377	7.727	-1.339
	(0.942)	(2.102)	(14.16)	(13.33)
Observations	59	85	59	85
R-squared	0.76	0.43	0.08	0.08

Cluster-corrected standard errors in parentheses. ** p<0.01, * p<0.05, + p<0.10 (two-tailed).

Table A3: Predicting Candidate Finance in Open Races (Logged Dollars)

	Incumbent party candidate's finances		Challenging party candidate's finances	
	External	**Self**	**External**	**Self**
Strategic factors				
Strength of incumbent's party	0.00352	-0.184	-0.00898	-0.106
	(0.00796)	(0.156)	(0.0157)	(0.123)
Incumbent party candidate quality	0.00112+	0.00243	-0.000223	0.00158
	(0.000647)	(0.00472)	(0.000867)	(0.00703)
Challenging party candidate quality	-0.000225	-0.00787+	0.000914+	-0.00926*
	(0.000362)	(0.00446)	(0.000479)	(0.00375)
Non-strategic controls				
Population (logged)	0.519**	-1.309	0.491+	0.381
	(0.136)	(1.774)	(0.278)	(1.509)
Opponent's external finance (logged)	0.199	-0.495	0.478	-2.882+
	(0.126)	(1.570)	(0.285)	(1.638)
Opponent's self finance (logged)	-0.0124	-0.131	0.00709	-0.175
	(0.0128)	(0.154)	(0.0210)	(0.149)
Incumbent is a Republican	0.156	0.405	-0.0681	0.389
	(0.244)	(1.975)	(0.278)	(2.248)
Constant	3.840*	42.70*	0.968	50.70**
	(1.685)	(20.37)	(2.625)	(16.22)
Observations	57	57	57	57
R-squared	0.72	0.11	0.62	0.17

Cluster-corrected standard errors in parentheses. ** p<0.01, * p<0.05, + p<0.10 (two-tailed).