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# Campaign Fundraising and Competitive US Congressional Elections: How Much and What Level of Fundraising Is Needed for Success?

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**Abstract**

Campaign contributions have increased significantly in the past decade in the United States. While research exists on how fundraising impacts elections, little focus is on the modern era and competitive races. This paper looks at how a candidate's fundraising, as both an absolute or percentage difference to their competitor, impacts their success in their congressional race relative to the presidential results in that district or state. It finds the percentage difference between two candidates' fundraising has a small but statistically significant impact on election results, with the combined effects of that relative fundraising and incumbency accounting for 25% of the variance in election results. However, relative fundraisings statistical significance disappears at a minimum level of funding, implying that only the initial level of fundraising matters for competitive elections. Absolute fundraising is found to not be statistically significant and has little to no correlation with the median income of the district. Small-dollar donations are found to hold a statistically significant negative relationship with a candidate's relative vote.

## 1. Introduction

Successful fundraising is often seen as the hallmark of a good campaign. If a candidate can procure donations, it means they have an appeal that allows them to be competitive in and win elections. Yet the necessity of fundraising is much more inconclusive. Research has shown that fundraising has limited to no effect on electoral results ( Alexander 2005, Levitt 1994) and that it is a vital component in a candidate's success (Schuster 2020, Jacobson 1978, Gerber 1998). This is made more prominent when compared to the rapid rise in total campaign fundraising in the United States, which has grown from 5.28 billion in the 2008 elections to 14.4 billion in the 2020 elections (OpenSecrets 2023). If politics continues to have the same financial growth, clarity on whether spending more money holds statistical benefit becomes much

more important. To address this, I investigate how different forms of fundraising affect a candidate's chances of success in competitive US federal elections.

### 1.1    Literature Review

The inconclusiveness in previous research may come from how it has considered election competitiveness. Non-competitive elections hold a fundamentally different calculus than competitive elections, as official campaign arms are unlikely to support the side almost guaranteed to lose, and incumbents can raise funding for their or other candidates' future campaigns. One paper that looked at competitiveness as defined by fundraising found that much of the data on money's effectiveness in elections was driven by candidates that had little chance of winning (Thomsen 2023). By focusing on competitive elections, the data can focus on races where a change in vote share by fundraising can have a meaningful impact on the final election results. This paper will follow guidelines set out through the Cook Political Report, where competitive elections are those within a 10% margin (Cox, Fiva, and Smith 2020), while also using an even stricter definition of a 5% electoral margin to see if there are statistically significant differences between levels of competitiveness.

A closer look at modern elections would also prove useful. Political polarization is far more impactful today than a few decades ago (Gentzkow 2016), and most available research on fundraising and elections focuses on those of the past. Higher levels of political polarization are likely to reduce how malleable people's support is toward candidates, lowering the marginal impact of each dollar. The growth in total fundraising for modern elections mentioned previously may create a similar lower marginal impact of each dollar, and raises a question on whether there is a cutoff at which fundraising is no longer impactful towards a campaign. Additionally, a rise in small-dollar donations, and evidence of its success on campaigns (Arbour 2020, Duffy 2022), suggests that the impacts of fundraising's sources may be fundamentally different than a few decades ago.

Another paper has similarly looked at these issues but focuses on data from the 2018 election (Mukherjee 2022). This paper uses the 2020 election, due to it being a presidential year. By comparing the margin-of-victory in US congressional elections to those of the presidency in the same year, the US congressional vote is compared to a baseline that helps isolate the impacts of the individual and lessen how demographic information like education, race, and partisan lean impact the results. There is also a focus on how the specific type of fundraising, namely the relative percentage of fundraising, the absolute amount of fundraising, the percentage of small-dollar donations, and the percentage of candidate self-funding individually affect the results.

Other election factors beyond fundraising still need to be addressed to further

isolate fundraising's effect on election results. Incumbency has had strong evidence of holding a statistically significant impact on election results in almost every modern or historic paper on election results (Speck and Mancuso 2014). I also look at the median household income of districts to find the effect of local media markets on fundraising, and how consistently a candidate can keep media attention for the six months before the election due to the possible correlation between increased media exposure and increased fundraising.

## 2.    Methods

This paper looks at the 2020 US congressional and presidential elections. The year was chosen to allow for a nationalized baseline that could be compared against candidates, so that their successes or failures can be isolated from effects such as a district or state's education, race, partisan lean, and temporary opinions towards the current presidency and parties. The district or states examined were split into two categories, with either a 5% maximum margin–of–victory in the congressional or presidential election, or a 10% maximum margin–of–victory in the congressional or presidential election. Due to the comparison between how individual candidates performed to the national baseline, both congressional and presidential margins of victory were considered for the cutoff. Competitive elections were also chosen to ensure the data was based on races whose results may meaningfully change with slight changes in the percentage of the vote. Races with candidates from only one party were removed, which resulted in CA34 being taken out of the dataset. Races with an open primary and multiple candidates running from the same party were also removed, though none of those identified by this characteristic fell under either a 5% or 10% margin–of–victory, and so this choice did not affect the dataset. These determinations were made to ensure that the comparison between the presidential candidate and the individual candidates could remain accurate, and not be polluted by divided votes between parties within congressional elections. In the end, 116 districts fell under the 10% margin–of–victory definition, and 70 fell under the 5% margin–of–victory definition.

A campaign's total receipts were used to represent the amount that the campaign fundraised, with this information being gathered from OpenSecrets and the FEC Campaign finance data, n.d. Small–dollar donations and self–funded donations were compared to this amount. Data on the percentage of the vote for congressional candidates and the incumbency was gathered from the FEC, while data on the presidential vote in each congressional district was gathered from Daily Kos Staff, n.d. The median household income of each congressional district was gathered from ProximityOne and the US Census Bureau S1901: census bureau table, n.d. The relative media attention of each candidate was gathered from Google Trends

data for a period of six months before the election, on both the national and state level.

The main dependent variable is the relative margin–of–victory of a candidate compared to their party presidential candidate's margin–of–victory in the same district. For instance, if a Democratic candidate had a 5% margin–of–victory to their presidential candidate's 4% margin–of–victory, they would have a score of 1%. The main independent variables are relative fundraising, absolute fundraising, small-dollar fundraising percentage, and self–funded fundraising percentage. Relative fundraising is the percentage of fundraising that a candidate wins relative to their opponent. The baseline for relative fundraising, or where a candidate would be exactly equal to their opponent, is set to 0, and increasing the value by 1 would mean that a candidate had 100% more fundraising. Candidates were only looked at if they had relative fundraising greater than equal to their opponent. Because of candidates' equal–opposite relationship for relative fundraising and votes in the same district, not doing this would likely lead to a linear relationship due to a faulty dataset, rather than any proof about fundraising's impact on elections. Incumbency is checked on a boolean true–false relationship, where 1 means that a candidate is an incumbent and 0 means that they either are a challenger or in an open seat. Other dependent–independent variable checks are median household income to absolute fundraising and state and national media attention to relative fundraising, to determine if the results are statistically significant enough to impact those variables. The state and national media attention values go from 0 to 100, where the result is how consistently the candidate keeps being searched relative to their peak in the six months before the election.

## 3.   Results

Table 2 and Table 1 show the results for the 5% cutoff and the 10% cutoff when no minimum value for receipts is used. In both examples, incumbency and the relative percentage of the vote's p value was < 0.05, meaning that the values were statistically significant, and that the null hypothesis can be discard for their impact on how well a candidate preforms relative to their presidential candidate.

In the 5% cutoff, the relative impact of state media attention proved to be statistically significant. In the 10% cutoff, the percentage of small–dollar donations proved to be statistically significant. Because of this, both of these values were included in the final model for their respective cutoffs, alongside incumbency and relative fundraising. The final regression model for the 5% cutoff is shown in Figure 1, and has an $R^2$ of 24.0%, while the final regression model for the 10% cutoff is shown in Figure 2, and has an $R^2$ of 26.2%.

**Table 1.** 5% Margin, No Minimum

| Independent Variable | Dependent Variable | Slope | R | R^2 | P |
|---|---|---|---|---|---|
| Incumbency | Relative Vote | 5.494 | 0.432 | 0.186 | 0 |
| Relative Fundraising Difference | Relative Vote | 0.155 | 0.345 | 0.119 | 0.003 |
| Absolute Dollar Difference ($10,000) | Relative Vote | 0 | 0.014 | 0 | 0.911 |
| % Small Dollar | Relative Vote | -6.967 | -0.155 | 0.024 | 0.201 |
| % Candidate Self-Funding | Relative Vote | 1.731 | 0.01 | 0 | 0.931 |
| Median Household Income ($10,000) | Absolute Fundraising | -81.626 | -0.142 | 0.02 | 0.242 |
| State Media Attention | Relative Fundraising | 0.978 | 0.24 | 0.058 | 0.045 |
| National Media Attention | Relative Fundraising | 0.114 | 0.04 | 0.002 | 0.741 |

**Table 2.** 10% Margin, No Minimum

| Independent Variable | Dependent Variable | Slope | R | R^2 | P |
|---|---|---|---|---|---|
| Incumbency | Relative Vote | 5.601 | 0.421 | 0.177 | 0 |
| Relative Fundraising Difference | Relative Vote | 0.168 | 0.306 | 0.093 | 0.001 |
| Absolute Dollar Difference ($10,000) | Relative Vote | -0.001 | -0.135 | 0.018 | 0.149 |
| % Small Dollar | Relative Vote | -11.144 | -0.246 | 0.061 | 0.008 |
| % Candidate Self-Funding | Relative Vote | -1.721 | -0.018 | 0 | 0.849 |
| Median Household Income ($10,000) | Absolute Fundraising | -57.136 | -0.108 | 0.012 | 0.247 |
| State Media Attention | Relative Fundraising | 0.476 | 0.142 | 0.02 | 0.128 |
| National Media Attention | Relative Fundraising | 0.012 | 0.005 | 0 | 0.96 |

In both models, incumbency proves the biggest determinant of how well a candidate does compared to their party's presidential candidate, making candidates perform 5% better than they would without the incumbency advantage. Relative fundraising, while having a statistically significant impact, has a relatively minor effect on how well a candidate is expected to do, increasing their vote share by 0.125% for every 100% more they fundraise than their opponent. The % small dollar does have a noticeable effect on the result, where if 50% of a candidate's fundraising comes from small–dollar donations, they can be expected to lose -0.809% of the vote. State media attention's impact becomes almost nonexistent when put in the model.

All other values measured have a large enough p–value that their results are not statistically useful. The absolute difference in fundraising holds no apparent meaningful bearing on the results. The absolute difference also proves to have very little correlation to the district's median income, and national media attention appears unuseful in determining relative fundraising. The % a candidate self–fundraised also had no apparent impact on how well a candidate performed when compared to their presidential candidate.

$$RelativeVote = 0.136 * RelativeFundraising + 4.924 * Incumbent$$
$$-1.618 * \%SmallDollar - 1.168 \tag{1}$$

$$RelativeVote = 0.125 * RelativeFundraising + 4.889 * Incumbent$$
$$0.011 * StateMediaAttention - 1.584 \tag{2}$$

Next, I tested a minimum receipts value, or amount raised, of $500,000, a value notably less than the mean of 6.1 million or the median of 2.1 million. If any of the two candidates in the race had raised lower than that value, they were no longer considered a part of the dataset. The number of data points dropped from 70 to 65 for the 5% cutoff, and from 116 to 103 for the 10% cutoff. The results, shown in Table 3 and Table 4, paint a very different picture for relative fundraising, with only incumbency remaining statistically significant for both, and the % small-dollar donations remaining statistically significant for the 10% cutoff.

Because of the new lack of statistical significance for fundraising, multiple linear regression was not performed on the data from a $500,000 minimum, as what has been found implies that fundraising is relatively unimpactful after a certain amount is raised.

## 4.   Discussion

When taken in full, the effects of the relative amount of fundraising between candidates proved statistically significant. However, this statistical significance vanished

**Table 3.** 5% Margin, $500,000 Minimum

| Independent Variable | Dependent Variable | Slope | R | R^2 | P |
|---|---|---|---|---|---|
| Incumbency | Relative Vote | 4.889 | 0.403 | 0.162 | 0.001 |
| Relative Fundraising Difference | Relative Vote | 0.571 | 0.11 | 0.012 | 0.385 |
| Absolute Dollar Difference | Relative Vote | 0 | 0.031 | 0.001 | 0.808 |
| % Small Dollar | Relative Vote | -3.414 | -0.078 | 0.006 | 0.539 |
| % Candidate Self-Funding | Relative Vote | 3.268 | 0.021 | 0 | 0.867 |
| Median Household Income | Absolute Fundraising | -111.332 | -0.181 | 0.033 | 0.148 |
| State Media Attention | Relative Fundraising | 0.078 | 0.23 | 0.053 | 0.066 |
| National Media Attention | Relative Fundraising | 0.014 | 0.06 | 0.004 | 0.636 |

**Table 4.** 10% Margin, $500,000 Minimum

| Independent Variable | Dependent Variable | Slope | R | R^2 | P |
|---|---|---|---|---|---|
| Incumbency | Relative Vote | 5.61 | 0.433 | 0.187 | 0 |
| Relative Fundraising Difference | Relative Vote | 0.324 | 0.086 | 0.007 | 0.385 |
| Absolute Dollar Difference | Relative Vote | -0.001 | -0.132 | 0.017 | 0.185 |
| % Small Dollar | Relative Vote | -9.917 | -0.219 | 0.048 | 0.026 |
| % Candidate Self-Funding | Relative Vote | -0.73 | -0.008 | 0 | 0.935 |
| Median Household Income | Absolute Fundraising | -76.735 | -0.139 | 0.019 | 0.161 |
| State Media Attention | Relative Fundraising | 0.039 | 0.083 | 0.007 | 0.403 |
| National Media Attention | Relative Fundraising | 0.002 | 0.006 | 0 | 0.953 |

when a minimum was implemented, going from an $R^2$ of 9.3% and a p of 0.001 for the 10% cutoff with no minimum, to an $R^2$ of 0.7% and a p of 0.385 for the 10% cutoff with a $500,000 minimum. This implies that the relative amount of fundraising is less important than the minimum amount of fundraising, with that minimum allowing a candidate to establish themselves in a race. This aligns with other research done that posits fundraising's greatest benefit comes when a candidate is undefined (Smidt and Christenson 2012).

The data also implies that the absolute difference in fundraising and the amount a candidate self funds have little bearing on how well they do compared to the top of the ticket. The absolute difference in fundraising also has little correlation with the median income of the district or state. While the median income of districts is not perfectly representative of the local media market's cost, it remains a decent enough representation that the media market's effect on the absolute amount of fundraising can be considered limited.

The most important factor proved to be, in all cases, whether an individual was an incumbent, with an $R^2$ ranging from 16.2% to 18.7% and its highest p-value being only 0.001. Being an incumbent can be expected to grant you around 4.9% more of the vote when compared to one's presidential candidate when looking at both the 5% and 10% cutoffs. A candidate would need to raise an estimated 39 times more than their opponent for the effect of their relative fundraising advantage to be equal to the benefits that a candidate would get from being an incumbent. This confirms the research that incumbency matters within races, and even goes against the narrative that the advantage of incumbency has decreased over time (Rakich 2018), with it being a seemingly critical factor in most close incumbent races.

The % small dollar ended up being one of the few statistically significant variables in the 10% cutoff, and remained so, even after a minimum value was added. It also worked in the opposite direction of what was expected from previous research, having a clear negative implication for a candidate's relative chances in competitive races. While this is not proof that small-dollar donations are a poor fundraising tactic, it does indicate that they are at least a sign of other reasons for worse performance. Candidates who raise more in small-dollar donations may hold policy positions more out of sync with the district they are running in, or it may be a sign of weaker elite or institutional support for the candidate. A greater exploration of the effects of small-dollar donations would likely benefit from accounting for those in a model.

State media attention was the last variable that proved to have a statistically significant effect. While limited in its nature to fully account for media attention, it does give a slight indication that candidates who receive continuous interest do

better, rather than those who may have a moment of fame and then fade over time. However, its limited effect in the model implies that it may be more of a subsidiary effect of relative fundraising rather than a significant indicator on its own.

### 4.1  Limitations

This paper was limited in scope to relatively accessible data. Other, more in depth ways may help further isolate the impacts of a candidate's chances compared to their party's president. The race and gender of a candidate may impact how they are perceived, their level of elite support, and their level of fundraising, especially when accounting by party (Jones 2018). How a candidate's positions align with their district, and with their opponent, may be another indicator of their local success. Media attention could also instead be compared to the total number of searches that a candidate received during the months before the election.

This paper also did not cover the impact of Super PACs on election results due to the difficulty of finding how much dark money is put into elections. While conventional wisdom suggests that how much Super PAC money a candidate earns may align with their conventional fundraising sources, accurate measures of Super PAC funding still would prove useful.

This data only used information from the 2020 election, giving a relatively small data sample. Using other major cycles, like 2016 or the future 2024 elections, may provide more clarity. The data can also be expanded to include midterm elections, though the method used to determine candidate success may be less applicable without a presidential race. A greater exploration of minimum values would especially benefit from this.

### 5.  Conclusion

The percentage difference of fundraising between candidates, % small dollar donations, and incumbency are found to be the most statistically significant factors in how a candidate does relative to their presidential candidate in their district or state. Absolute fundraising, candidate self fundraising and national media attention are found to have no impact on the results, and state media attention is a possibly statistically significant indicator of fundraising success. Incumbency is found to be very indicative of electoral success, and relative fundraising and incumbency together account for around 25% of the variance in how candidates do relative to the presidential race when no minimum is given. The impact of relative fundraising disappears once a minimum value is reached, implying that the effects of fundraising exist on electoral results, but that they are only impactful up to a certain absolute

level of candidate funding.

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## Appendix 1. Datasets

For further references, see the candidate dataset and district/state dataset for the 2020 election.