
More Bang for the Buck: Campaign Spending and Fundraising Success

American Politics Research

XX(X) 1–27

© The Author(s) 2012

Reprints and permission:

sagepub.com/journalsPermissions.nav

DOI: 10.1177/1532673X12444308

<http://apr.sagepub.com>



Corwin Smidt¹ and
Dino Christenson²

Abstract

Can candidates spend their way into financial success? We propose that the 2007 presidential money primary offers unprecedented leverage to evaluate spending's influence since it allows for sharper controls of confounding factors. Our results demonstrate that greater candidate spending on fundraising-related efforts is associated with significant future financial benefits. We estimate that, prior to the primaries, increases in spending have an equal or larger payoff than increases in a candidate's viability and find different types of spending are beneficial for frontrunner and long-shot candidates. The results consistently indicate greater early spending works to advantage candidates, suggesting a lack of initial resources is a significant obstacle for candidates who seek to financially benefit from their campaign's performance.

Keywords

campaign finance, elections, presidential nominations

Toward the end of the 2008 nomination campaign many of Hillary Clinton's donors wondered where all their money had gone. Although her campaign had raised more money than any other in history before entering a presidential

¹Michigan State University, East Lansing, MI, USA

²Boston University, Boston, MA, USA

Corresponding Author:

Corwin Smidt, Michigan State University, 303 S. Kedzie, East Lansing, MI 48824, USA

Email: smidtc@msu.edu

nomination campaign, Clinton had to loan her campaign US\$5 million a month later to keep pace with Barack Obama. Despite popular perceptions of organizational largess, the Clinton campaign actually spent a majority of its funds in a manner very similar to the Obama campaign. Both candidates raised more than US\$100 million by the end of 2007, but both used more than US\$75 million of those funds during that same year. The *New York Times* also calculated that for both these campaigns about one half of their spending was for campaign activities or media purchases, with the other half going to salaried staff, administrative costs, and travel (Luo, Becker, & Healy, 2008). Indeed, both candidates followed a pattern of success continually emphasized by campaign strategists and consultants: Campaigns that raise large amounts of money early in the process and invest in their campaign organizations are more effective at reaping future contributions (e.g., Biersack, Herrnson, & Wilcox, 1993).

But is all that early spending worth it? Prediction models of presidential party nominations are not fully supportive. Candidates who are most likely to win are not those who spend the most money entering the contests but those who save it and keep it as cash on hand (Adkins & Dowdle, 2001; Steger, 2000; Steger, Dowdle, & Adkins, 2004). However, much of Clinton's and Obama's early spending was for the purpose of raising more money and, thus, might have ultimately benefited the candidates if it resulted in increased fundraising and more cash on hand when entering the contest period (Adkins & Dowdle, 2002). But even along these lines, political science research has yet to demonstrate that candidates can actually improve their financial standing by spending their early money on fundraising.

Currently, the empirical evidence of the financial benefits of early campaign spending across campaigns has been either inconclusive or unsupportive. Campaign efforts at contacting and soliciting donors play a role in explaining which donors contribute (Brown, Powell, & Wilcox, 1995), and scholars of congressional elections often claim early fundraising advantages are important because candidates can spend more on fundraising and raise future contribution totals (Biersack et al., 1993; Herrnson, 2007; Jacobson, 2004). But early money and spending are highly correlated with candidate viability and preexisting fundraising networks. Candidates who raise large amounts of money early in the campaign are also candidates with good electoral chances and strong connections to donors. Early money and early spending may not actually advantage candidates but simply serve as strong indicators of preexisting advantages. Indeed, studies of presidential nomination campaigns do not find consistent support for the utility of financial resources and propose that money is mostly a reflection of popular or insider

political support and campaign performance (Aldrich, 1980; Damore, 1997; Mayer, 1996; Mutz, 1995).

This study attempts to reconcile these differing perspectives and evaluate whether campaign contributions are responsive to how much campaigns spend on fundraising-related activities. We outline why an examination of presidential candidate fundraising prior to the 2008 nomination contests, what we term the 2007 money primary, provides strong empirical leverage in deciphering the financial benefits of a campaign organization's efforts. A very open and competitive contest for both parties drove candidates to form their campaign organizations early and to seek funds actively. With multiple measures of candidate fundraising activities and substantial variability in candidate spending before any actual contest, we have unique abilities to account for campaign-specific and candidate-specific confounds by estimating the average effects of spending *within* each organization.

We provide consistent evidence that candidates who increase their fundraising-related expenditures raise significantly more money in the future. Past changes in staff or travel and event spending have a significant association with future contribution totals. Spending on staff and organizational resources shows consistent significant benefits for long-shot campaigns, but devoting more resources to events and travel shows the clearest benefits for frontrunner candidates. Moreover, compared to the benefits of changes in viability or polls, we estimate changes in candidate spending had an equal or larger payoff during the money primary.

Substantial public or party insider support likely remains a precondition for candidates raising large funds, but our results indicate that candidates are much more successful at gaining the financial benefits from such support if they can devote substantial financial resources toward its collection. Thus, these results help explain why we tend to find political candidates hitting the money trail earlier and earlier and why early advantages in campaign funds are associated with greater financial advantages in the future.

Does Early Campaign Spending Improve Campaign Contributions?

Our understanding of whether candidates can spend money to make money is surprisingly inconsistent across the campaigns literature. Research on the act of contributing is generally supportive, as scholars find contributions are often explained by a candidate's efforts at raising funds (Francia, Green, Herrnson, Powell, & Wilcox, 2003). Contributors are more likely to give to candidates who can afford to contact them, either through visits, direct mailing,

or other forms (Brown et al., 1995). Direct solicitations through mail or telephones are one of the more profitable mechanisms for raising a large number of smaller contributions (Godwin, 1988). Getting large donations often requires hosting events (Herrnson, 2007), since events increase candidates' chances of receiving donations at the maximum level and expand their network of contributors to the friends and colleagues of those who organize such events (Francia et al., 2003). Candidates who invest in their campaign staff and organization are also thought to be more successful at raising funds. Examinations of fundraising within Congress indicate that incumbent advantages in fundraising are propelled in parts by their more professional fundraising operations, as incumbents more often employ finance directors and professional fundraising consultants to organize their financial operations, reach their contributor network, and establish early fundraising totals (Herrnson, 2007).

However, our understanding of the importance of campaign organization spending is hampered by its potential spuriousness; organizational funding and activity are highly correlated with other factors known to improve contributions, especially a candidate's potential campaign performance (Damore, 1997; Krasno, Green, & Cowden, 1994). Incumbents have professional campaign organizations that appear effective at raising funds, but they also have high probabilities of winning. Likewise, studies of early money within congressional elections tend to assume that early money benefits challengers through both these mechanisms. For example, Biersack et al. (1993) emphasize that candidates can use early money to overcome incumbent advantages in name recognition and to fund consultants to convince PACs (political action committees) and other donors of a campaign's viability. But the authors also point out that early money acts as a signal to donors, thereby convincing donors of a candidate's financial backing within his or her political network and the campaign's overall viability. Seed money can also set challengers apart from challengers in other districts, thereby addressing a coordination problem by telling other donors where to pool their money to best defeat incumbents.

Indeed, compared to studies of donors, most investigations into presidential primary fundraising argue that candidate viability and performance best explain financial success. Both Mutz (1995) and Damore (1997) provide evidence that winning contests and gaining favorable coverage from such successes offer significant benefits to candidates. Unlike congressional studies, both Cohen and colleagues (Cohen, Karol, Noel, & Zaller, 2008) and Damore do not find that existing candidate resources are significant predictors of future contribution success. Furthermore, forecasting models of presidential

primaries suggest that candidates who raise the most money without spending it before contests begin are more likely to win (Adkins & Dowdle, 2001; Steger, 2000; Steger et al., 2004).

Only a few previous studies find a significant association between fundraising spending and success at the candidate level, but these results are either far from conclusive or problematic. Hinckley and Green (1996) provide the strongest empirical case for spending's benefit. They propose that an organization-driven model better explains candidate fundraising than a campaign-driven model. When estimating candidate-specific regressions for the 1988 presidential nomination contest, they find candidate fundraising expenditures were more consistent predictors of weekly contribution receipts over the entire nomination, but their analysis was limited by their use of infrequently measured polling data as a single control measure of the campaign's dynamic. Looking across candidates, Adkins and Dowdle (2002) find that candidates who spend more on fundraising before the Iowa caucuses, relative to the top spender in each campaign, also tend to raise relatively more money during that same period. However, their estimates fail to account for the strong potential that candidates are more likely to spend money on fundraising if they raised large amounts of money previously that year. Moreover, it seems unlikely that their measures of a candidate's home state and early poll numbers sufficiently tap the nature of preexisting candidate networks or other candidate advantages in fundraising.

In combination, evidence of whether campaigns financially benefit from campaign spending, independent of their preexisting viability and network of donors, is both limited and inconsistent. Scholars recognize that both viability and organizational spending are correlated with fundraising success, but the ability to establish spending's independent contribution within these studies is weak. But answering such a question is vitally important because it furthers our understanding of the role of money and campaign organizations within American elections. If fundraising success is independently driven by a campaign's efforts, then it suggests that campaign money and organizations are not simply indicators of viability or existing support but actually provide advantages to candidates before the contest begins.

To that end, the following analysis seeks to evaluate whether a campaign's fundraising efforts influence future contribution totals. We do so by creating unique measures of fundraising-related expenditures and implementing a research design that offers rare advantages in accounting for confounding factors. As a result, the following analysis provides an unprecedented clear estimate of spending's relationship with future contribution totals.

The Value of Studying the Presidential Money Primary

Given the theoretical motivations and methodological challenges above, our goal is not to estimate the relative effect of all the factors that drive contribution totals, but to evaluate whether modern campaign organizations can use their resources to increase future contribution totals. Therefore, we seek to test spending's influence while eliminating or controlling for other confounding factors, such as changes in a candidate's electoral chances, the context of the election, a candidate's preexisting financial resource advantage, and the timing and nature of the fundraising calendar. Typically scholars analyze data across multiple campaigns and then attempt to compensate for their differences by including numerous control measures. But sharper inferences are available if we estimate the effects of spending *within* a recent campaign and *within* the same candidates, where many of these forces are held constant and cannot be correlated with observed changes in candidate spending and fundraising.

The presidential money primary, the competition among presidential candidates for campaign cash prior to the state contests, offers a rare opportunity to investigate what role campaign organizations play in generating contributions. Spiraling costs of campaigns, frontrunner tendencies to reject spending limits, and the increased frontloading of state contests have raised the competition among candidates to collect contributions during the long exhibition period prior to the actual state contests (Butler, 2004; Cohen et al., 2008; Green, 2006; Steger, 2000). Fundraising reports are one of the few metrics for comparing candidates during the exhibition period and have a large influence on journalistic impressions of performance (Goff, 2004). Indeed, although spendthrift candidates show remarkable tendencies to endure (Norrande, 2006),¹ prominent candidates often abandon their campaigns before any state contests are held, blaming their inability to raise funds and compete in a costly campaign (Goff, 2004).²

The salience of the money primary was even more apparent entering the 2008 nominations. Many large states, like New York and California, scheduled their nomination contests on the first Tuesday in February, effectively establishing a national primary, or what some termed Tsunami Tuesday. The compressed schedule was anticipated to shorten the financial momentum from early electoral victories and limit candidate abilities to raise funds during the contest period (Aldrich, 2009). Since candidates could not move their organizations from one state to the next, a national primary meant candidates had to approach the contest with substantial funds and organizations to

compete simultaneously in many large states. Public financing was also not a viable option; those candidates accepting public matching funds needed to restrict their primary spending levels to US\$42.2 million, an amount that was less than half of what Obama, Romney, and Clinton spent in the year 2007 alone.

Beyond the perceived importance of money entering the nomination campaign, we propose that there are three important benefits to testing the role of fundraising-related expenditures within the context of the 2007 money primary. First, it grants us an ability to eliminate concerns about election-specific factors. Depending on the year, the location, the type of candidates, the cost of campaigning, and the attributes of the contest, the incentives for candidates to raise funds (and for donors to give money) change. Studies of contributions across different campaigns have difficulties in sorting out the influence of these factors since there is a high correlation between challenger quality, incumbent vulnerability, the requisite costs of the election, and other candidates' campaign spending.

By looking at multiple candidates' performance within the 2007 money primary, however, many of these obstacles to inference are erased because the campaign's context is the same. We have numerous candidates who have won office before, all of whom are competing in the same recent election with professional campaign organizations and for a similar group of donors. Differences in candidate chances and resources are very apparent, but the ambition, knowledge, and tools these candidates have at their disposal is much less disparate. Therefore, within our analysis we can be certain it is the behavior of the candidates or the dynamics of the campaign that determine our results, not differences in the nature of the election.

Second, and perhaps most important, we have numerous repeated observations over time for each candidate. This enables us to control for any relevant candidate-specific factors that may be highly correlated with spending rates. Since the 2007 money primary was active for a long time, we have very consistent estimates of a candidate's average financial performance relative to each of the other candidates. Instead of including noisy measures of a candidate's attributes in an attempt to control for a candidate's preexisting advantages within a regression, our measure of each candidate's average performance theoretically represents the summed contribution of all time-constant candidate-specific forces that influence contributions, including insider party support (Cohen et al., 2008) and preexisting fundraising networks (Adkins & Dowdle, 2002). By controlling for each candidate's average performance, our analysis will estimate how fundraising-related expenditures explain differences in contribution totals within (and not across) each candidate.

With numerous observations over time we can also specify contribution totals as a function of *past* candidate spending. Consequently, our analysis estimates the average effect spending has on future contributions for each candidate.

A final advantage of studying the 2007 presidential money primary is that we observe fundraising for each candidate before an actual contest begins. With no concrete changes in each candidate's electoral chances for the year before 2008, we can observe the influence of fundraising spending when candidates are relatively unencumbered by upcoming contests or other external forces and are much more focused on fundraising. By no means was the campaign in a steady state. Media coverage and poll numbers can influence donor assessments of viability and performance, but it is unclear how determinative they are during this early period. Moreover, to the extent polls and expectations of a candidate's chances have an influence, we possess quality measures that capture both of these effects.

We acknowledge that by observing contributions during the 2007 money primary our case study is limited to a period where the actual contest is much less prominent. We are not doubting the importance of electoral performance in explaining a candidate's overall contributions total. It is simply not the research question at hand. We seek to understand if and how a campaign's efforts can improve fundraising totals before candidates begin the contest. Thus in order to eliminate the powerful influences of primary contests, we focus on the role of candidate spending *before* any contest. If early money matters for winning elections and large amounts of funds are raised before the first contest begins, then it is important to understand how much influence candidates have over the process of raising such funds. Since the presidential money primary is a competitive and extensive time period where campaigns seek to raise funds, it provides researchers with the opportunity to evaluate whether campaign organizations and their spending make a difference.³ Therefore, beyond the money primary's relevance to our understanding of presidential nominations, its characteristics provide rare insights for scholars of campaigns and campaign spending who seek to place the role of campaign organizations within our explanations of a campaign's financial success.

Data and Methods

Our data mostly comprise variables developed from the Federal Election Commission's (FEC) individual donor data set and candidate spending reports. We supplement these with measures of candidate support and viability

from the Iowa Electronics Market and a collection of public opinion polls. With these variables we seek to determine if candidate contribution levels were at all responsive to a candidate's spending patterns during the 2007 money primary.

Dependent Variable: Weekly Big Donor Campaign Contributions

Following Hinckley and Green (1996), we generate weekly measures of campaign contributions from the FEC's individual donor data set. The FEC data record the amount and date of all contributions from individuals giving more than US\$200 in total contributions to a particular candidate from 2007 to 2008, individuals who we refer to as big donors. We acknowledge that these contributions do not represent all contributions within a campaign, but these limitations are not great and likely do not modify the implications of our analysis. As Brown et al. (1995) demonstrate, a large percentage of candidate contributions come early and from habitual donors who end up giving more than US\$200.

The habitual donor pattern also held during the 2007 money primary. Most candidates' early campaign funding came from big donors. Based on the July Quarterly, October Quarterly, and 2007 Year-End reports, Table 1 presents the total amount a candidate raised each quarter and the percentage of that amount accounted for by contributions in our data.⁴ Although Barack Obama received numerous smaller donations later in the campaign, a large portion of his early funding came from big donors. Compared to a candidate's quarterly total (including those contributions from PACs), only Edwards, Paul, and Thompson received less than a majority of funds from observed contributions. Big donor contributions may not represent all contributions, but their dynamics represent a major component of the early campaign's total.

Classifying Campaign Spending

Many studies use a campaign's overall spending measure to represent campaign activity. For our purposes, however, this global summary measure does not accurately represent a campaign's attempts to raise funds. Presidential candidates spend a large portion of their funds on fundraising-related activities early in the primary campaign. But toward the end of the campaign many of their funds are spent on media purchases and campaign

Table I. Total Contributions (in Millions) by Quarter and Percentage of Amount Recorded in FEC Individual Donor Data Set

Candidate	Reporting period					
	April 1-June 30		July 1-September 30		October 1-December 31	
	US\$ raised	% observed	US\$ raised	% observed	US\$ raised	% observed
Biden	2.3	98.7	1.7	81.1	2.0	63.8
Clinton	27.0	92.2	27.2	86.7	26.8	85.4
Dodd	3.3	93.0	1.5	86.2	1.6	67.1
Edwards	9.0	64.4	7.0	64.2	7.1	43.0
Giuliani	17.5	93.1	11.5	88.9	14.2	91.5
Huckabee	0.8	74.6	1.0	63.0	6.6	61.9
McCain	11.3	84.3	5.7	71.1	6.8	67.6
Obama	32.9	75.1	20.6	69.8	22.8	57.7
Paul	2.4	51.7	5.2	52.8	20.0	38.9
Richardson	7.0	79.5	5.3	71.1	3.9	63.9
Romney	14.1	83.0	9.8	82.9	9.1	81.9
Thompson	—	—	—	—	8.9	43.0

Note: Overall contribution amounts reported in millions of dollars. Observed percentages are in terms of the amount of each quarter's total contributions that are recorded as a big donor contribution in the FEC (Federal Election Commission) data.

activities in Iowa and New Hampshire. Since these activities are more focused on winning votes and not taking in dollars, we do not expect these spending activities to drive campaign contribution levels.

To properly understand how campaigns spend to influence contribution totals we carefully went through each campaign's itemized disbursement reports and coded its transaction descriptions for whether each transaction might be related to fundraising activities.⁵ Each campaign itemizes its reports in slightly different ways, but they are similar in how they account for their expenses. For example, all campaigns have entries listing "catering" or "event food" to detail expenses for serving food. Our coding routine used a selection of keywords and regular expressions to first automatically code transactions into broader categories of expenses. We then personally examined these results to verify each transaction's classification. We include three separate measures of campaign expenses that tap different aspects of an organization's expenditures that might influence future contribution levels. Depending on a candidate's preexisting resources and network these factors may have different consequences for fundraising success, so we also

investigate potential differences by frontrunner and long-shot candidates in our analysis.

Staff and organization. Examinations of fundraising within Congress indicate that incumbent advantages in fundraising are partially propelled by their more professional fundraising operations (Herrnson, 2007). Similar differences are also possible for presidential candidates. The influence of changes in staff spending is likely the greatest for long-shot candidates, who do not possess the initial resources to support a full-fledged organization and show gradual increases in such spending. In contrast, frontrunner candidates often retain significant staffing resources from related PACs or other political organizations and exhibit fairly constant staff expenditure rates. We code all expenses that are listed for the purposes of personnel, payroll, salary, consulting, office expenses, computers, rent, or research as staff-related expenses that could be used for the purposes of fundraising. All staff expenses that are in Iowa, New Hampshire, South Carolina, Nevada, and (for Republicans) Michigan were considered campaign related and are not included in our totals.

Travel and events. Candidates often need to travel and appear at events or dinners to reap big donor contributions. Past research indicates that such events are profitable for frontrunner candidates, who tend to have more high-profile contacts capable of hosting events with more donors who also give large amounts. We calculated two separate categories of expenses that we ultimately combined to capture candidate efforts to hold fundraising events. All expenses that are listed for the purposes of airfare, travel, lodging, transportation, or flights were deemed travel-related expenses. All expenses that are listed for the purposes of catering, decorations, audio-visual equipment rental, events, facility rentals, or staging were deemed event-related expenses. As with our coding of staff-related expenses, we only count travel and event expenses as related to fundraising if such expenses occurred outside the early contest states.

Direct marketing. Direct mail has long been a prominent method for soliciting contributions (Godwin, 1988). Direct mail fundraising is often seen as most effective in raising smaller donations of less than US\$100 (Francia et al., 2003; Herrnson, 2007), which are not reflected in our data. But direct mail is also repeatedly sent to supporters who might ultimately contribute US\$200 across the entire campaign. Any expenses listed for the purpose of direct mailing, postage, phone banks, telecommunication services, list buys, or list rentals were counted as direct marketing spending. As we did with the other two measures, all direct marketing purchases in the early contest states are considered to be campaign-related expenditures and not included.

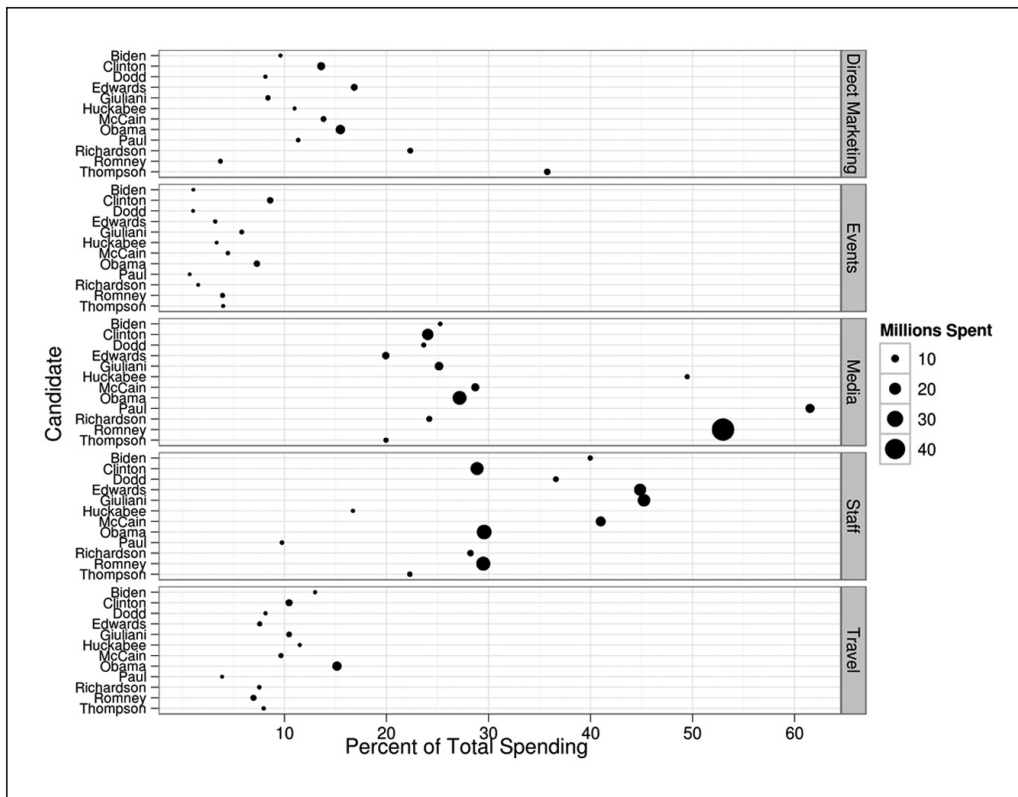


Figure 1. How candidates spent their money in 2007

For each of these three measures, we specify a candidate's weekly contribution total as a function of the average amount spent by the candidate over the previous 4 weeks.⁶ There is no strong basis for choosing a 4-week time window of spending effects. Event-related expenses are often paid for when fundraising events occur and show closer temporal relationships. However, new staff are not productive immediately and the payoff of their efforts or those of direct mailings take a longer time to occur. A 4-week moving average offers a roughly comparable metric for estimating the immediate and slower effects of these spending categories and shows optimal fit in comparison to other lag specifications, but the following inferences hold when using several other plausible lag specifications. To account for decreasing marginal returns to scale of spending, we used a logarithmic transformation of each 4-week average.

To provide some perspective on how much of their money candidates devoted to such activities, Figure 1 compares the percent and amount of expenditures that went to each category by candidates. We also include our tabulation of each candidate's spending on campaign promotional activities,

such as television and radio advertisements, website spending, as well as print activity in the early states. Candidate differences are apparent across these five categories of spending, but there are many patterns of similarity. Staff, consulting, and research expenses frequently took the largest chunk out of each campaign's budget. Campaign promotion activities, like television or radio advertisements, often came in as the second largest category of expense, but took up a majority of the costs for Huckabee, Paul, and Romney.⁷ We also see that events and traveling combined to account for 10% to 20% of expenses for most candidates and that Clinton and Obama focused their spending efforts in very similar ways. Indicating that fundraising events are not as prominent a route of financing for long-shot candidates, we also find that Biden, Dodd, Paul, and Richardson all devoted a relatively small amount of finances out of their small budgets to event-related activities.

Control Variables and Model Specification

To control for alternative forces driving candidate contributions, we include a set of measures and specifications to account for a candidate's chances at winning, systematic patterns associated with the FEC report calendar, and any fixed differences in contributions attributable to each candidate.

Candidate viability. One of the problematic aspects of estimating the influence of early money within congressional elections is controlling for the tendency of early money to go to those challengers who have relatively good chances of upsetting incumbents, since typical measures of candidate viability are relatively crude. This is much less an issue for presidential nominations, where political future markets, like the Iowa Electronic Market, provide daily measures of their traders' beliefs in each candidate's chances.

Future contracts are priced to represent each candidate's probability of winning as determined by a group of individuals who like to bet on politics. They provide a single summary measure of a candidate's chances, and they are very accurate since, theoretically, they incorporate all factors that inform such decisions, including past and present poll numbers, states-specific poll numbers, or positive media coverage (Forsythe, Nelson, Neumann, & Wright, 1992). Therefore, future contract prices provide a summary indicator of how a candidate is performing across multiple aspects of the nomination campaign's exhibition season. Erikson and Wlezien (2008) detail that these market prices tend to be less accurate than polling-based statistical models when predicting elections; they overestimate the variability of the campaign and the chances of political long shots. But these imperfections support the measure's validity as an indicator of how donors perceive a candidate's chances

since these imperfections reflect known biases in how people evaluate political chances (Forsythe et al., 1992). Moreover, since we use these measures to control for the effect different levels of viability have for each candidate (i.e., not the differences between candidates in their chances), any constant level of optimism or pessimism associated with a candidate during this time period will not bias our results.

An alternative measure of viability comes from polling data. But polls suffer from missing data limitations since they are infrequently taken for early portions of the year and exclude minor candidates at times. Moreover, we believe the future contracts remain better representations of candidate chances at winning the national polls, which represent a candidate's national level of support within a contest where there is no actual national election. For those interested, we demonstrate in the Appendix that our results and substantive conclusions hold when we use alternative poll-based measures to explain contribution performance.

Using the Iowa Electronic Market trading figures, we retrieved subjective probability measures of a campaign's viability for 9 of the 12 major party candidates. Contracts for Giuliani, McCain, and Romney started trading in March; for Thompson and Huckabee we apportion the contract price for the rest of the Republican field until their contracts are traded separately later in the campaign. For the Democrats, Clinton, Obama, and Edwards' measures are also available starting March, and we use the contract price for the rest of the Democratic field as a measure of viability for Richardson since he was the most viable out of these long-shot candidates. Our estimates use the previous week's average contract price to represent donor perceptions of each candidate's chance of winning.

The fundraising calendar. Candidates recognize that campaign finance reports are an early indicator of performance. Seeking to impress journalists and the attentive public with large early amounts, candidates increase their fundraising efforts as the deadline approaches and use these deadlines as motivation for donors to give (Goff, 2004). Our data also show that candidates pay attention to FEC report deadlines. Figure 2 displays each candidate's logged weekly contribution totals. There are multiple peaks in fundraising numbers that coordinate with the FEC's quarterly report deadlines (Weeks 13, 26, 39, and 52). Contributions climb steadily as report deadlines approach and then exhibit a sharp peak for the final week.

We include four control variables to account for the patterns associated with the fundraising calendar. Since the trends associated with the calendar are slightly less for each successive quarter, we include a separate weekly counter variable to represent how many weeks until the next reporting deadline

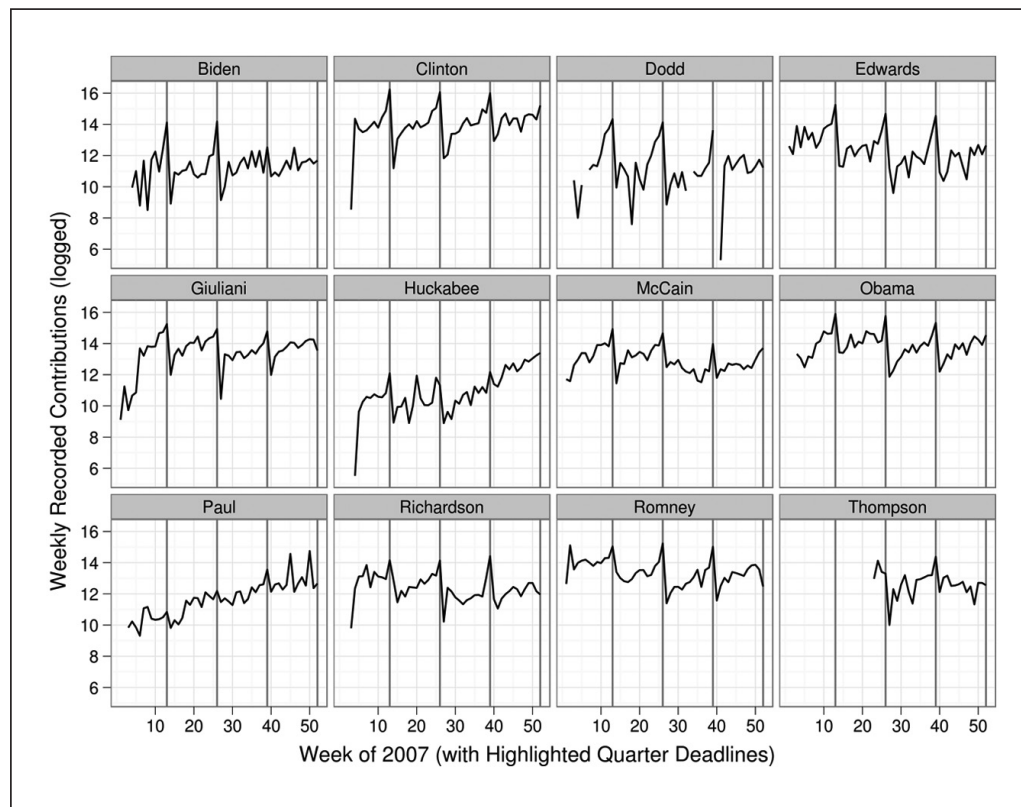


Figure 2. Dynamics in 2007 candidate contributions

for each of the three quarters in our analysis. To capture the additional sharp peaks observed within the final week of the second- and third-quarter report deadlines, we also include a dummy variable to account for these end-of-quarter spikes.

Candidate-specific advantages. One of the difficulties in understanding campaign contributions is accounting for how well candidates possess existing fundraising networks, other beneficial resources (Adkins & Dowdle, 2002), or a candidate's insider status (Cohen et al., 2008). An advantage of looking at patterns in contributions over time for each candidate is that we can control for what advantages or disadvantages are constantly associated with each candidate. We do so by estimating a fixed-effects (within-effects) least squares regression model on each candidate's contribution totals. As already detailed, by accounting for any unobserved forces specific to each candidate our specification controls for any candidate advantages or disadvantages that are constant, such as preexisting fundraising networks or appeal to special interests.⁸ Because of this specification our coefficient estimates represent the average influence each variable has in explaining differences within each

candidate's weekly contribution totals and not those differences observed between each candidate's average contribution total.

Results

Our initial analysis of weekly contribution amounts indicated extreme non-linearity, violating an assumption of linear regression. We compensated for this violation by transforming each candidate's contribution total by the natural logarithm function. In contrast to previous studies, we found no evidence of the need to include a lagged dependent variable after the inclusion of our FEC calendar variables.⁹

Our results are presented in Table 2 and specify values of the dependent variable as a function of each candidate's spending measures, campaign viability, and the shared dynamics that are associated with the FEC reporting calendar.¹⁰ Looking first at the overall results, our estimates indicate that changes in a candidate's level of staff or travel and event spending are significantly associated with future gains in contribution totals. Therefore, after controlling for fixed candidate-specific advantages, the FEC calendar, and viability levels, we still find evidence that changes in fundraising-related spending are significantly associated with future contribution amounts. In contrast, spending on direct mail or phone services fails to show significant connections with future receipts. This latter result is not totally unexpected; since direct mail and phone solicitations generally target less wealthy donors, it is possible that our estimates do not fully represent the financial payoffs of direct marketing efforts because the FEC data are limited to contributors who give more than US\$200.¹¹

Our control variables also show a consistent influence on the process. When assessments show that a candidate's chances of winning are on the rise, it is associated with significant contribution gains in the next week. The estimates also indicate the importance of the fundraising calendar in explaining when contributions are reported. Across all three quarters, the closer one gets to the reporting deadline the more money candidates report. And on the week of a report deadline candidates average significantly higher receipts.

Previous studies of presidential contributions have found important differences when comparing these dynamics for the frontrunners and the long shots (e.g., Damore, 1997). We also find differences in what factors provide the greatest benefits for candidates when we estimate separate models.¹² First, in the case of frontrunners, changes in how much candidates spend on travel and events show the largest and clearest connection to future contribution totals.

Table 2. The Financial Benefits of Campaign Spending

Variable	Model		
	Overall	Frontrunners	Long shots
Staff	0.454* (0.128)	0.179 (0.134)	0.987* (0.259)
Travel/events	0.262* (0.067)	0.336* (0.071)	0.073 (0.124)
Direct marketing	-0.070 (0.043)	0.003 (0.055)	-0.133 (0.074)
Viability	0.025* (0.005)	0.014* (0.005)	0.053* (0.012)
Week before second deadline	-0.077* (0.012)	-0.085* (0.012)	-0.070* (0.032)
Week before third deadline	-0.153* (0.011)	-0.162* (0.011)	-0.149* (0.027)
Week before fourth deadline	-0.096* (0.011)	-0.126* (0.012)	-0.022* (0.022)
Week of deadline	1.200* (0.155)	1.303* (0.157)	0.825* (0.310)
Intercept	5.196* (1.241)	7.309* (1.408)	1.522* (2.315)
<i>N</i>	338	234	104
Number of candidates	9	6	3
<i>R</i> ²	0.613	0.690	0.664

Note: Dependent variable: Logged weekly big donor contributions (April-December, 2007). Fixed-effects regression coefficients with standard errors in parenthesis. Estimates for the intercept represent the average value of the candidate-specific effect.

* $p \leq .05$ (two-tailed test).

However, spending on staff for these candidates is estimated to have a positive but insignificant association. Frontrunner candidates typically have high-profile political supporters across the country who can host events that take in many contributions in a short time, so it is understandable that their travel and event spending is associated with significant financial benefits. Moreover, it is possible that the smaller insignificant influence of staff and consulting also reflects a preexisting advantage of frontrunner candidates that is controlled for by our estimate of constant candidate-specific benefits. Frontrunner candidates are often associated with PACs or other organizations that employ

many of their core staff before they even announce their candidacy. These staff are then employed at the outset of the campaign organization's formation, such that any additional resources candidates devote to staffing are for less prominent members and exhibit insignificant benefits. Nevertheless, the insignificant estimates indicate that frontrunners were unable to add to such advantages by spending more on staff; thus, they fail to indicate that staffing expenses are a major determinant of differences in frontrunner contributions.

The pathway to financial success is different for long-shot candidates, where we find spending on campaign staff and organization is associated with the greatest and clearest gains in future financial contributions. These results likely reflect how long-shot candidates are unable to rely on initial financial backing or a full-fledged existing staff when they start their campaign. They first need to raise sufficient funds from their own political network to get sufficient financial backing and then put a team in place who can help them raise more funds nationally. Therefore, when comparing the benefits of staff spending across frontrunner and long-shot candidates, staff spending exhibits significant benefit for organizations who start at small levels but does not show clear benefits among frontrunners who consistently spend beyond those levels. Also travel and event spending for long shots, with their lower levels of insider political support and national interest, fails to exhibit future financial benefits. This result is not surprising. Most of a long shot's campaign travel budget was devoted to traveling to early contest states, expenses that we exclude from our analysis. In other words, these candidates attended few identifiable fundraising events during the 2007 money primary and apparently gained little in return.

The Relative Benefits of Campaign Spending

Our model estimates not only provide us with evidence that candidates financially benefit from fundraising-related expenditures but also allow us to evaluate the extent to which spending explains future fundraising success. One method of making this evaluation is by comparing the amount of variance explained by expenditure variables to campaign performance variables and FEC calendar dynamics. We do this by first generating a set of baseline model predictions using only those variables corresponding to the FEC calendar, where all other variables are set at each candidate's observed mean. We then evaluate each factor's relative explanatory power by comparing the reduction in error variance when including each type of predictor. For instance, when we include variations in candidate viability ratings as a

Table 3. The Financial Consequences of Changes in Spending and Viability

Candidate	Estimated travel/event payoff	Estimated viability cost/payoff
Clinton	41.3 (26.2, 59.4)	15.4 (4.5, 28.2)
Edwards	1.9 (1.2, 2.6)	0.1 (0.05, 0.17)
Giuliani	5.4 (3.5, 7.2)	-0.3 (-0.6, -0.1)
McCain	7.1 (5.3, 8.9)	-1.3 (-2.1, -0.6)
Obama	19.7 (12.5, 26.9)	-11.1 (-18.1, -4.1)
Romney	6.2 (4.3, 8.1)	2.2 (0.9, 3.5)

Note: Amounts reported are in millions of dollars with 90% confidence interval in parentheses. Estimated travel/event payoffs represent difference in estimated contributions at observed values compared to estimates if candidates only spent at their observed minimum. Estimated viability payoffs represent difference in estimated contributions at observed values compared to receipts if viability levels were held constant at early April levels.

predictor the reduction in error variance is about 9%. When we instead include spending variations across time to explain fundraising success, the sample residual variance is doubly reduced, by 18%.

Another means of evaluating the importance of campaign expenditures is to estimate their relative payoff. Using our results for frontrunner candidates, we calculated a set of in-sample predicted values and confidence intervals using postestimation parameter simulation (e.g., King, Tomz, & Wittenberg, 2000). The first column in Table 3 displays our estimates of how much money candidates earned from their observed travel and event spending. We first calculated an estimate of the contribution amount a candidate would have earned if travel and event spending was set at his or her observed minimum, and then we compared this estimate to the estimated total amount of contributions earned when setting each candidate's spending variables to their observed values.

Based on this counterfactual, we estimate that the Clinton campaign was able to raise about US\$41 million dollars more from her observed travel and event spending (which totaled to about US\$12 million) compared to if she only spent at her observed minimum (which would have totaled about US\$480,000), a substantial profit.¹³ Other campaigns were also successful,

but not quite as profitable. For example, by increasing its travel and event spending to US\$16 million instead of US\$2 million we estimate that the Obama campaign took in an additional US\$19.7 million.

The differences in spending's benefits partly emerge because our estimates of candidate-specific advantages indicate that some candidates, like Giuliani and Obama, were strong fundraisers regardless of their spending and viability levels. In contrast, we find candidates like Clinton, Edwards, and McCain were more reliant on their campaign's efforts to boost their totals. In Clinton's case, although she was connected to a large fundraising network, it appears her fundraising network did not give freely. Compared to Obama, we estimate Clinton's contributions were more a result of coaxing from her organizational spending than her own specific appeal. In the case of McCain, his contribution levels dropped after he dismissed much of his poorly performing senior campaign staff in July.¹⁴ McCain's original organization might have failed to bring in as much early money as expected, but we estimate that the organization's high spending rates early in the campaign contributed an additional US\$7.1 million to his campaign's coffers compared to what McCain would have received at the lower, post-July spending rate.

A campaign's spending on fundraising-related efforts clearly has sizable benefits for its future contribution amounts. To compare spending's influence to that of viability factors we performed a similar estimate of payoffs with our candidate viability measure. First, we set each candidate's viability level to its observed level during the first week of April 2007 and calculated how much each candidate would have received in contributions over the year. We then took this estimate and subtracted it from our estimate of how much money each campaign received based on observed viability levels. This provides us with an estimate of how much perceptions of each campaign's performance during 2007 helped or hurt its financial receipts.

Changing expectations of a candidate's viability also have financial consequences, but by no means do they eclipse estimates of spending's effect. In many cases, candidates' abilities to raise money through spending more than accommodated for the losses they incurred from lowered viability expectations. Clinton benefited the most from changing assessments of her electoral chances. We estimate that she took in an additional US\$15.4 million because of high expectations of her candidacy's chances during the fall. We also find that Edwards and Romney benefited from improved expectations of winning, but not by nearly as much. McCain's losses from his lowered expectations in July were not as large as those differences associated with his decreased fundraising spending. Instead Obama was the candidate hurt the most during

2007. When Clinton's chances rose, Obama's chances were assessed as much lower, resulting in an estimated loss of about US\$11.1 million in contributions.

It is apparent that campaign expenditures were an equal, if not larger, piece of the puzzle determining candidate contribution totals in 2007. Moreover, these results also speak to the battle for each party's nomination. When we perform a similar comparison for long-shot candidates, we estimate that Huckabee gained an extra US\$1.2 million from increased perceptions of his electoral chances, but he gained much more, US\$4.0 million, in response to his increased spending on his staff and organization. Thus, the Huckabee campaign was not able to fully capitalize on its increased prospects until it devoted the resources toward generating such contributions.

Our results also shed light on Clinton's surprising financial disadvantages later in 2008. Although Clinton was ahead of Obama entering 2008, Obama far outpaced Clinton in contributions, following his wins in Iowa and South Carolina, and despite her win in New Hampshire. Our results indicate that Clinton's financial success in 2007 was much more dependent on her ability to travel and raise funds, along with improving perceptions of her campaign's viability. Both of these advantages were erased once Obama won in Iowa. Since Obama had already raised large amounts through an appeal that was not as much a result of his organizational efforts or campaign performance, his early victories enhanced his financial performance. In contrast, Clinton had less appeal, and her efforts in 2007 likely exhausted most of her potential contributors. Therefore, she had a much tougher task in raising funds because she was no longer the pack leader and had limited time to recruit donations once the campaign began.

Discussion and Conclusions

Scholars often claim that early finances are advantageous to candidates, but few studies have examined whether campaigns can use early resources to create future financial advantages—and fewer still have examined how campaigns can best use those resources. As we have discussed, one hurdle in answering this question has been the research design of previous studies. Our response has been to provide a rationale as to why scholars of money in campaigns should look at data within campaigns to evaluate spending's influence and avoid implementing problematic model specifications. Based on this rationale, the 2007 presidential money primary offers us the rare empirical leverage to answer questions of early spending's influence on future contributions.

Although we fully acknowledge that campaign contributions respond to candidate performance and viability during the contest period of an election, knowing how candidates raise money before contests begin remains important for our understanding of electoral processes (e.g., Box-Steffensmeier, 1996). Our results document that in comparison to candidate viability the resources and efforts of campaign organizations have an equal, if not greater, role in driving contribution levels before these contests begin. Expenditures have future financial benefits for candidates, and we find the ways in which organizations spend money have different benefits depending on the type of candidate. Frontrunner candidates appear to have benefited the most in response to changes in their travel and event expenditures, while contributions to long shots were most responsive to changes in staff spending.

Depending on the candidate we also find that spending on fundraising was more or less profitable. We estimate that Clinton was the most effective in tapping her extensive network of high-profile donors and benefiting from popular perceptions of her viability. Her supporters may not have been pleased, but our results indicate the Clinton campaign was more than justified in spending so much money in 2007. As demonstrated by her early receipts, Clinton could not have relied on her viability alone if she wanted to equal Obama's contribution totals. Instead, she had to increase her organization's efforts at raising funds. By the end of 2007, her campaign managed to establish itself as the financial and political frontrunner. Unfortunately for her, this success in 2007 covered up weaknesses that would plague her future ability to raise finances, making the campaign's failures in 2008 more dramatic.

With only a study of a single campaign, it is important that we do not overstep the generalizability of these findings. However, the massive changes in campaign finance laws, campaign strategies, and modes of fundraising over time make it difficult to generalize from campaigns of many years ago when seeking to understand the role of prominent forces operating within modern campaigns. Moreover, we believe an analysis of one of the more competitive and modern campaign contests provides rare glimpses of how similar processes operate in campaign contexts that are as competitive but not as visible or accessible to the researcher.

Past changes in candidate spending may be significantly associated with future receipts, but one should not step outside the bounds of Granger causality when describing spending's influence on future receipts (Mayer, 1996). Candidates cannot simply spend money to create more money; if so then running for president would be one of the surest investment ventures out there. Candidates require a network of core supporters and sufficient popular interest before they can hold events and raise funds. In this regards, when

answering the question of what comes first, we are certainly less on the side of the chicken dinner and more on the side of the donor.

Nevertheless, these results still offer insights into the importance of campaign organizations and their fundraising efforts. Preexisting political support might be a requirement before candidates can raise large contributions, but it is not always sufficient. Candidates also need to spend money to take full advantage of their popular support. We estimate that Huckabee's campaign profited much more from his increased popularity only after he spent more on his staff. For the case of the Clinton campaign, and unlike Obama's, we found that contributors were much more supportive of her campaign after she made efforts to recruit them. Clinton might have maxed out her contributor network before the intense nomination struggle with Obama, but this still demonstrates how campaign organizations are a force capable of shaping the timing and size of contributions. Therefore, the timing and capabilities of organizational efforts to raise funds represent an important strategic consideration within campaigns.

These results also indicate why presidential candidates are prone to start running so early every 4 years. Prospective candidates who do not run typically note the immense resource and time commitments as major reasons. In contrast, candidates who enter, like Pawlenty and Romney in 2012, were campaigning years ahead of time. They managed their own PACs to cultivate fundraising networks years before the campaign. These organizations not only distribute money to potential future political supporters but also create and maintain a fundraising operation, fund a candidate's travel, and establish relationships with potential donors that they can use again as official candidates. This provides key advantages to frontrunners over long-shot candidates, as the latter have to work to fund their organization in order to improve their financial standing. Travel and events are financially profitable, but they also take valuable time away from candidates who also need it to campaign for votes. Since the costs of competitive elections continue to rise and donors who give big amounts usually desire some form of direct contact in exchange, the only way candidates can raise more money and establish a competitive edge is by spending the additional time and money needed to expand their donor base before the campaign. As such, the use of expenditures before the contest begins should be considered among the most important of a candidate's early decisions.

Declaration of Conflicting Interests

The authors declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

Funding

The authors received no financial support for the research, authorship, and/or publication of this article.

Notes

1. These are usually issue-themed candidacies with little prospects of winning the nomination. In 2004, both Dennis Kucinich and Al Sharpton competed in many states and won delegates after John Kerry was the presumptive nominee.
2. Despite ranking second in a national poll at the time, Dan Quayle quit his candidacy in September 1999. During his announcement he claimed that he would have likely won New Hampshire, but he also claimed he did not have enough money to compete with George W. Bush's well-funded organization in the following frontloaded contests.
3. Another benefit of 2008 is that restrictions on PAC campaign activity within the Bipartisan Campaign Reform Act were still in effect, making each candidate's organization the primary one that could engage in electioneering. This was no longer the case in 2012, after the Supreme Court's ruling in *Citizens United v. Federal Election Commission* and the emergence of candidate-associated Super PACs.
4. Contributors often have multiple records in our data because they give more than once. Given the availability of spending and viability measures, our weekly observations start the first week in April and run through the end of December.
5. Previous studies have relied on overall fundraising expenditure totals as reported in Line 25 of each organization's summary quarterly report. With many major candidates rejecting federal spending limits, however, these summary categories were left unreported because there is no incentive to itemize such expenditures.
6. An obstacle in creating this measure is that the dates for some transactions are not the actual dates but the dates on which the credit card bills for those transactions were paid. Since these credit card transactions are noted in each candidate's report, we exclude these transactions from our measure so that it only contains transactions from that week.
7. Since these percentages are calculated by each candidate, the total amount spent on promotion activities (as indicated by circle size) is much larger for Obama and Clinton since they spent so much more money than the other two candidates.
8. Although candidate-specific attributes, like preexisting candidate fundraising networks, are constant, it is possible that their contributions to fundraising totals decline over time, especially for frontrunner candidates. These are not accounted for by our fixed-effects specification, but our calendar variables account for these patterns somewhat. Moreover, since we use a logarithmic transformation of our dependent variable in estimation, this makes the candidate fixed-effects

a scaling factor within its original scale. For example, the effects of (and differences between) the FEC calendar variables are larger for those who typically raise much more money since they are higher on the logarithmic scale and vice versa.

9. Multiple specification tests supported this model specification. A modified Hausman test and a Wooldridge strict exogeneity test failed to indicate our results suffer from significant endogeneity bias. Two candidates, Huckabee and McCain, exhibit significant autocorrelation in the residuals. However, model estimates that account for a potential first-order autoregressive error process do not differ from those we present. A presentation and discussion of these results are presented in an online supplementary appendix. We also explored alternative transformations of the independent and dependent variables using linear and natural cubic spline measures, but found no substantive differences in the estimation results. AIC (Akaike information criterion) and BIC (Bayesian information criterion) fit indicators ultimately favored the specification presented in this article.
10. Results from alternative specifications that exclude the viability measure (and include three more candidates) and those that replace it with national polls are both presented in the Appendix.
11. As we show in the Appendix, these substantive conclusions hold when examining the results of this model that either exclude the viability measures or use polling-based measures of viability. Moreover, as we present in the online supplementary appendix, further exploration indicates that the one difference between our national polling results and those presented in Table 2 (a significant relationship between frontrunner staff expenses and future contributions) is a function of missing data in the national polling measure and not our use of the future market viability measure. Our viability measure provides the same results over the same time interval, yet fails to find a significant relationship when expanding the sample size.
12. We define frontrunners as the three candidates within each party who raised the largest amount of money during the first quarter of 2007, which includes Clinton, Edwards, and Obama for the Democrats and Giuliani, McCain, and Romney for the Republicans.
13. Clinton's estimates are not an artifact of our logged dependent variable. Since the coefficient for logged spending is estimated to be below 1, our estimates indicate spending had decreasing payoffs for candidates as they spent more.
14. A primary reason for McCain making such changes was his low fundraising totals, especially compared to Giuliani and Romney. Several staffers departed the campaign, including the campaign manager and chief strategist, and others took pay cuts. McCain reduced his campaign's national profile and targeted winning an early primary state like New Hampshire.

References

- Adkins, R. E., & Dowdle, A. J. (2001). How important are Iowa and New Hampshire to winning post-reform presidential nominations? *Political Research Quarterly*, 54, 431-444.
- Adkins, R. E., & Dowdle, A. J. (2002). The money primary: What influences the outcome of pre-primary presidential nomination fundraising? *Presidential Studies Quarterly*, 32, 256-275.
- Aldrich, J. H. (1980). *Before the convention: Strategies and choices in presidential nomination campaigns*. Chicago, IL: University of Chicago Press.
- Aldrich, J. H. (2009). The invisible primary and its effects on democratic choice. *PS: Political Science and Politics*, 42, 33-38.
- Biersack, R., Herrnson, P. S., & Wilcox, C. (1993). Seeds for success: Early money in congressional elections. *Legislative Studies Quarterly*, 18, 535-551.
- Box-Steffensmeier, J. M. (1996). A dynamic analysis of the role of war chests in campaign strategy. *American Journal of Political Science*, 40, 352-71.
- Brown, C. W. Jr., Powell, L. W., & Wilcox, C. (1995). *Serious money: Fundraising and contributing in presidential nomination campaigns*. New York, NY: Cambridge University Press.
- Butler, R. L. (2004). *Claiming the mantle: How presidential nominations are won and lost before the votes are cast*. Boulder, CO: Westview.
- Cohen, M., Karol, D., Noel, H., & Zaller, J. (2008). *The party decides: Presidential nominations before and after reform*. Chicago, IL: University of Chicago Press.
- Damore, D. F. (1997). A dynamic model of candidate fundraising: The case of presidential nomination campaigns. *Political Research Quarterly*, 50, 343-364.
- Erikson, R. S., & Wlezien, C. (2008). Are political markets really superior to polls as election predictors? *Public Opinion Quarterly*, 72, 190-215.
- Forsythe, R., Nelson, F., Neumann, G. R., & Wright, J. R. (1992). Anatomy of an experimental political stock market. *American Economic Review*, 82, 1142-1161.
- Francia, P. L., Green, J. C., Herrnson, P. S., Powell, L. W., & Wilcox, C. (2003). *The financiers of congressional elections*. New York, NY: Columbia University Press.
- Godwin, R. K. (1988). *One billion dollars of influence: The direct marketing of politics*. Chatham, NJ: Chatham House.
- Goff, M. J. (2004). *The money primary*. Lanham, MD: Rowman & Littlefield.
- Green, J. C. (2006). Financing the 2004 presidential nomination campaigns. In D. B. Magleby, A. Corrado, & K. Patterson (Eds.), *Financing the 2004 election* (pp. 93-125). Washington, DC: Brookings Institution Press.
- Herrnson, P. S. (2007). *Congressional elections: Campaigning at home and in Washington* (5th ed.). Washington, DC: CQ Press.

- Hinckley, B., & Green, J. C. (1996). Fund-raising in presidential nomination campaigns: The primary lessons of 1988. *Political Research Quarterly*, 49, 693-718.
- Jacobson, G. C. (2004). *The politics of congressional elections* (6th ed.). New York, NY: Pearson Longman.
- King, G., Tomz, M., & Wittenberg, J. (2000). Making the most of statistical analyses: Improving interpretation and presentation. *American Journal of Political Science*, 44, 347-361.
- Krasno, J. S., Green, D. P., & Cowden, J. A. (1994). The dynamics of campaign fundraising in House elections. *The Journal of Politics*, 56, 459-474.
- Luo, M., Becker, J., & Healy, P. (2008, February 22). Donors worried by Clinton campaign spending. *The New York Times*. Retrieved from <http://www.nytimes.com/>
- Mayer, W. G. (1996). Comment: Of money and momentum. *Political Research Quarterly*, 49, 719-726.
- Mutz, D. C. (1995). Effects of horse-race coverage on campaign coffers: Strategic contributing in presidential primaries. *The Journal of Politics*, 57, 1015-1042.
- Norrander, B. (2006). The attrition game: Initial resources, initial contests and the exit of candidates during the US presidential primary season. *British Journal of Political Science*, 36, 487-507.
- Steger, W. P. (2000). Do primary voters draw from a stacked deck? Presidential nominations in an era of candidate-centered campaigns. *Presidential Studies Quarterly*, 30, 727-753.
- Steger, W. P., Dowdle, A. J., & Adkins, R. E. (2004). The New Hampshire effect in presidential nominations. *Political Research Quarterly*, 57, 375-390.

Bios

Corwin Smidt is an Assistant Professor of Political Science at Michigan State University. His research focuses on campaigns and elections, political communication, and public opinion.

Dino Christenson is an Assistant Professor of Political Science at Boston University. His work focuses on political behavior, communication and information in campaigns and elections.