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# WHEN TIME ISN'T MONEY: AN ANALYSIS OF EARLY VOTING AND CAMPAIGN SPENDING

*Philip J. Zakahi*

In an October 1, 2008, *Washington Post* piece titled, “Nov. 4 Isn’t the Only Election Day; Campaigns Adjust as Early Voting Rises,” Mary Pat Flaherty outlines the tactics major party presidential campaigns use to win over “electoral gold”—the “early voters” who take advantage of laws in thirty-six states allowing them to vote before Election Day. In some states, a majority of voters now cast their ballots before Election Day, and media reports like Flaherty’s suggest campaigns have adjusted to the increasingly large number of early voters. They use specially targeted ads and get-out-the-vote operations to reach voters who might vote early. Scholars, however, have yet to adjust their work to incorporate these changes in campaign practices. While there is a large body of literature exploring the changes in turnout and electoral demographics due to early voting, there is almost no research examining the role of early voting in campaign behavior. This appears particularly important for scholars examining the role of campaign expenditures on electoral outcomes. Existing work simply does not account for a world in which a large number of voters have cast their ballots before campaigns have spent 100 percent of their funds. This study begins to fill that gap by demonstrating that candidates do spend money earlier in states with early voting and offering evidence to suggest this early spending may not necessarily give candidates an electoral advantage. The first finding helps to validate the claims made by campaign experts and news media about the impact of early voting on campaigns. The second finding can guide the spending of campaigns in states where there is early voting and candidates may be tempted to spend their funds early. Together, they challenge the

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academic literature to account for the growing role of early voters.

## AN UNEXPLORED TOPIC

This study stands at an intersection between two relatively large fields of research within the study of American electoral politics. The first field is the study of early, absentee, and mail-in voting. Authors in this field broadly ask the question, “What impact does early voting have?” They tend to focus on the questions: “Who votes early?” and “Does early voting increase turnout?” These questions may consider the influences of campaigns on early voting, but they do not tend to consider how early voting influences campaigns. They focus on the voter as the major unit of analysis, rather than the candidate and campaign. The second field is the study of candidate campaign expenditures. Authors in this field focus on the question: “Do campaign expenditures matter?” They too look at the practical question of whether incumbent spending matters, focusing on individual candidate campaigns as the major unit of analysis; however, they grapple with the significant methodological challenge posed by an incumbent’s ability to match the spending of a strong challenger. This phenomenon makes standard least squares regression nearly useless for comparing spending and election outcomes. Moreover, authors fail to give any credence to the large portion of voters who vote before Election Day. The following is an examination of the weaknesses in the current literature and a description of how this study seeks to address them.

### Early Voting Literature

Most of the work conducted on early voting that examines whether the widespread availability of early voting increases turnout, as exemplified by Oliver and Stein and Garcia-Money’s major studies, suggests that early voting does indeed raise overall voting numbers.<sup>1</sup> The other large subsection of research on early voting focuses on the demographics of early voters, such as Stein’s research comparing the demographics of early voters to Election Day voters

in Texas.<sup>2</sup> While these studies consider the role of campaigns in mobilizing people to vote early, they fail to consider the reverse of the relationship: how early voting influences the campaigns. Gronke does suggest a course of research that includes the impact of early voting on campaigns, but he focuses on voters and ballot return instead of directly exploring the impact on campaigns.<sup>3</sup> A study by Andrew Busch, the one exception to this framework, looks at a variety of data from surveys of campaigns and county clerks along with a narrow span of finance data from Colorado, but lacks methodological rigor.<sup>4</sup>

### Campaign Expenditure Literature

There are two major categories of work dealing with campaign expenditures. There are theoretical “economic” models, as referred to by Jacobsen, and “empirical” studies, as defined by Stratman.<sup>5</sup> Economic models of campaign expenditures like Welch, Prat, and Milyo’s studies theorize about the relationships between donors, candidates, and voters and seek to understand the impact that spending has on each.<sup>6</sup> Overall, these economic models tend to lack interaction with the variance of actual campaigns, where motives and behaviors vary from person to person and campaign to campaign.

Almost all of the current empirical literature on campaign expenditures traces back to a study by Gary C. Jacobsen that makes two key points that have launched the two central debates in the field.<sup>7</sup> The first is whether incumbent expenditures have significantly less impact on election outcomes than challenger expenditures. The second is whether traditional Ordinary Least Squares regression models accurately measure the relationship between expenditures and election outcomes.

Authors answer the first question in three ways. Green and Krasno argue that incumbent spending does have a significant

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\* This study focuses on campaign expenditures, ignoring other topics of money and politics. For a thorough review of the literature, see Thomas Stratmann, “Some Talk: Money in Politics. A (Partial) Review of the Literature,” *Public Choice, Perspectives on the Post-9/11 World* (July, 2005), <http://www.jstor.org/stable/30026707>.

positive impact on vote share and election outcomes.<sup>8</sup> Coates, who agrees with Jacobsen,<sup>9</sup> argues that incumbent spending has no positive impact on election outcomes and may even have a negative impact. Finally, Levitt finds that both challenger and incumbent spending have only a small influence on election outcomes.<sup>10</sup> This study builds on this research and hopes to present another case in this ongoing debate by isolating votes cast before Election Day and the spending that could have influenced those votes.

The other major distinction in the field is methodological. Studies vary in how they attempt to compensate for the effects of an incumbent's ability to spend money when faced with a strong challenger. Many studies, like Jacobsen's, Green and Krasno's, and Coates's focus on statistical means to control for these issues.<sup>11</sup> These studies tend to make little headway and, as Gerber points out, the "approaches vary widely."<sup>12</sup> Levitt, Gerber, and Green and Panagopoulos have tried structuring the study itself to isolate the expenditure variable.<sup>13</sup> Their attempts, however, look only at a specific scenario or reference an anecdotal number of cases. Kenny and McBurnett offer another approach that uses a lagged measure of campaign income to control for the impact of time, but their study lacks any sense of actual campaign expenditure patterns.<sup>14</sup> They assume expenditures occur when campaigns receive donations, without regard for other factors. This study offers an alternative approach for dealing with the incumbent's ability to raise and spend in reaction to a strong challenger effort, using the existence of early voting to isolate the impact of campaign spending on vote share. This extra variable allows us to return to the simple model offered by Jacobsen, instead of relying on the more complex and less realistic statistical manipulation of other studies.

## TWO QUESTIONS AND HYPOTHETICALLY STRAIGHT FORWARD ANSWERS

This study focuses on campaign expenditures as they relate to early voting, asking whether early voting influences campaigns to spend their funds earlier and whether spend-

ing campaign funds before early voting begins positively impacts election outcomes. This allows us to control for challenger strength and an incumbent's tendency to spend more money when vulnerable by using the proportion of funds spent as opposed to the total amount. Thus, we can control for variables previously unaccounted for in expenditure studies without significantly limiting the number of cases to examine. This leaves two interesting avenues to explore. First, are candidates in states that allow the general population to vote early more likely to spend money earlier than candidates where there is not a significant portion of the population voting early? Secondly, are candidates who spend money early in states where early voting occurs more likely to win a large portion of the vote than candidates who do not?

There are two relatively straightforward hypotheses. First, in comparing U.S. House campaigns, candidates in states where a large portion of the population votes before Election Day will spend their funds earlier than those in states without a large proportion of early voters. Second, in comparing U.S. House campaigns in states with early voting, candidates who spend their funds earlier will win more votes than those who spend their funds later.

## A New Dataset, a New Model, and an Old Model

The first half of this study focuses on the operating expenditures of the 2008 major party candidates from contested House races where there was one candidate from the Democratic Party and one candidate from the Republican Party—224 races in all.\* Although only using House races limits the study's broader applicability, House races are selected to ensure a large sample size and because candidates are required to report each of their expenditures to the Federal Election Commission (FEC). Thanks to significant increases in data compiled by *Congressional Quarterly* from 2008,

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\* In Minnesota the Democratic Farmer Labor Party will be used. Louisiana will be excluded because of their "Jungle Primary" system.

the information from FEC electronic filings, which is necessary to build models based on a campaign's daily expenditure levels, is readily available online. Let us consider the following OLS model:

$$SD \sim \beta_0 + \beta_1E + \beta_3I + \beta_4SP + \beta_5P \quad (1)$$

where the model is calculated three times with the dependent variable, 'SD', equal to the number of days from Election Day at which a candidate has spent 50, 75, and 90 percent of his or her total expenditures as taken from candidate expenditure reports to the FEC. The predictor variable 'E' is coded as one in states with general population early voting and zero in states without general population early voting. The first date of early voting is considered the day after no-excuse, absentee, or mail-in voting ballots are available or the first date of general population early voting. For the purposes of this study, excuse-required absentee voting is not considered early voting. Three basic control variables are included in the model. 'I' assesses incumbency and is coded as zero for challengers and one for incumbents. Relative overall spending as reported to the FEC is labeled 'SP'. It is calculated as the candidate's total spending divided by the opponent's total spending and used to control for the relative amount of funds available and the relative strength of the candidates. Finally, 'P' represents the candidate's party and is coded as zero for Republicans and one for Democrats.

The second half of the study focuses on challenger vote margins and uses 2008 contested House races where there was one candidate from the Democratic Party and one candidate from the Republican Party. Borrowing from Jacobsen's 1978 study, it looks only at the challengers in these races. The study adapts Jacobsen's OLS model, adding a series of terms to account for early voting and early spending. This creates two curvilinear OLS models; the first model accounts for the timing of early voting and the second the percentage of the electorate voting early.

$$CV \sim \beta_0 + \beta_1CE + \beta_2IE + \beta_3P + \beta_4PS + \beta_5SD + \beta_6ED + \beta_7(SD*ED) \quad (2)$$

$$CV \sim \beta_0 + \beta_1CE + \beta_2IE + \beta_3P + \beta_4PS + \beta_5SD + \beta_6EV + \beta_8(SD*EV) \quad (3)$$

Variable Name	Abbrev.	Description
Spending Days	SD	The number of days from Election day at which a candidate has spent 50, 75, or 90 percent of his or her total expenditures
Early Voting	E	Whether or not a given state as no-excuse early voting
Incumbency	I	Whether the candidate is an incumbent or a challenger
Spending	SP	A candidate's total spending divided by his or her opponents total spending
Party	P	A candidates party
Challenger Vote	CV	The challenger's share of the total vote in the election
Challenger Expenditures	CE	The total expenditures made by the challenger over the course of the race
Incumbent Expenditures	IE	The total expenditures made by the incumbent over the course of the race
Party Strength	PS	A measure of party strength determined by the result of the 2004 presidential election in the district
Early Start Day	ED	The number of days from Election Day at which early voting begins
Early Voting Volume	EV	The proportion of the total electorate casting their ballots before election day

The dependent variable 'CV' is equal to challenger vote share as reported by state election officials.\* The major predictor variable 'SD' is equal to the difference between the number of days from Election Day at which a challenger has spent 50, 75, and 90 percent of their total expenditures and the number of days from Election Day at which the incumbent has spent the same amount. The predictors 'ED' and 'EV' are equal to the first possible date to vote early in a given state and the proportion of the population voting early, respectively. The interaction terms are combinations of 'SD', 'ED', and 'EV'. The control variables 'CE', 'IE', 'P', and 'PS' are taken from Jacobsen's 1978 model and refer to challenger expenditures, incumbent expenditures, challenger party, and party strength. The first two are taken from the FEC, while party is taken from state election officials and coded as zero for Republican and one for Democrat. Party strength will be equal to the 2004 presidential vote share in the district as reported by Congressional Quarterly.†

\* Milyo argues this measure should be dropped in favor of a binary variable indicating whether the race was won or lost. This study, however, looks at the proportion of early spending to total spending as opposed to the difference between challenger and incumbent spending. This makes winning irrelevant to the study.

† Jacobsen used previous congressional results to calculate party strength.



## Data Collection

While most of the data was collected directly from the sources listed, data for the 'SD' variable had to be compiled by first downloading the individual expenditure reports from every candidate under consideration, made available through *Congressional Quarterly's* "Money Line."<sup>15</sup> These are newly available in manageable electronic format and include a record for each expenditure made by a candidate and reported to the FEC. These records include a date that was used to find the spending for each day, which was divided by the total spending to find the percentage of total spending conducted on any given day. By adding together these days in order, the aggregated percentage of spending conducted by a given day was determined. The date at which point 50, 75, and 90 percent of expenditures were made was then subtracted from Election Day.

## RESULTS

### Early Voting has Clear Impact on Campaign Expenditure Timing

This section analyzes the output of the models that explore how early voting impacts the timing of campaign expenditures. Candidates running in states with early voting spend their funds significantly earlier than candidates running in states without early voting. This holds true throughout the campaign at all three points tested. The volume or timing of this early voting does not significantly change the timing of spending. The mere possibility of people voting early is what is driving campaigns to spend their funds in advance.

Model (1) was run three times, where the dependent variable 'SD' (spending days) is equal to the number of days from the election at which an observed candidate spent 50, 75, or 90 percent of his or her total operating expenditures for the campaign. These results indicate that in states where

general population early voting occurs there is a tendency for campaigns to spend their funds earlier. Furthermore, while the significance of other variables fluctuates as we shift the dependent variable from 50 to 75 to 90 percent of total spending, only the presence of early voting has a significant impact at all three points. Despite this strong relationship, however, neither of the other two measures of early voting—timing ‘ED’ and percentage of people voting early ‘EV’—has a significant impact on the model. Additionally, early voting has limited predictive power for determining the timing of expenditures. Though significant, early voting predicts only about 10 percent of variability in the dependent variable. Some other factor or simply the random influence of the sheer number of people involved accounts for the rest.

### **First Half of Expenditures Made Much Earlier in Early Vote States**

In the first test considering the relationship between early voting and campaign spending, the dependent variable, ‘SD’, is the number of days from the election at which a candidate has spent 50 percent of his or her overall campaign operating expenditures. For most candidates, this point comes early in the campaign. The intercept places it about two months out from the election. Three of the variables, ‘E’, ‘I’, and ‘SP’, all return significant results with *p* values less than .001, .05, and .001, respectively. The strong impact of early voting here—candidates in early voting states hit this point nearly twenty-four days earlier than candidates in non-early voting states—is of particular importance to this study, and shows a strong correlation with early voting and expenditure timing. The other two significant variables here, incumbency and spending proportion, are not surprising.

**Table 1. Fifty Percent of Expenditures Vs. Early Voting**

Variable	Estimate	Standard Error	T Value	P Value
Intercept	60.123	7.087	8.484	<.001***
Early Voting	23.591	6.695	3.524	<.001***
Incumbency	16.577	6.450	2.570	.011*
Party	3.4073	6.2080	.549	.583
Spending	.6375	.1107	5.757	<.001***

$R^2 = .137$   $F=16.72$ . 422 degrees of freedom

\*  $p<.05$ , \*\* $p<.01$ , \*\*\* $p<.001$

Incumbents have likely been in the race for much longer than their challengers, and candidates with an advantage in fundraising are likely to spend money to gain that advantage. Overall, this model has a relatively weak predictive value, an issue we will address at the end of this chapter.

### Early Vote Candidates Also Reach Three Quarters Mark Faster

In the second test, the dependent variable, 'SD', was moved forward and calculated as the number of days from the election at which a candidate had spent 75 percent of his or her overall operating expenses for the campaign. The intercept here suggests that, holding other variables constant, this occurs for most candidates just under a month away from the campaign, or about twenty-three days from the election.

At this point, most of the big expenditures—TV ad buys, polling, and mailings—have been paid for. The relative impact of early voting on a candidate when he or she reaches this mark actually appears to increase. Candidates in early voting states reach this mark about sixteen days before candidates in states without early voting, compared to the twenty-three days out estimated overall. This is proportionally larger than the twenty-four days out of sixty overall seen in the 50 percent test. This model also shows less im-

pact from other variables. Only the spending advantage variable is significant, and challengers appear to have caught up with the spending of incumbents by this time.

**Table 2. Seventy Percent of Expenditures Vs. Early Voting**

Variable	Estimate	Standard Error	T Value	P Value
Intercept	22.779	3.751	6.072	<.001***
Early Voting	16.312	3.544	4.603	<.001***
Incumbency	-1.886	3.414	-.522	.581
Party	3.4076	3.286	1.037	.300
Spending	.149	.058	2.534	.012*

$R^2 = .069$   $F=7.56$  on 422 degrees of freedom

\*  $p<.05$ , \*\* $p<.01$ , \*\*\* $p<.001$

### Early Vote Relationship Remains Strong to End of Campaign

In the final test, the dependent variable, 'SD,' is calculated as the days from Election Day at which the observed candidate has spent 90 percent of his or her operating expenses. For most campaigns, this point is reached right before, or sometimes after, Election Day. As the model shows, the intercept here is just under eleven days from Election Day. As was the case with the other two models, the presence of early voting is a significant factor in determining when candidates reach this point in their spending, with  $p < .001$ . Candidates in states with early voting spent 90 percent of their funds more than a week earlier than those in states without early voting. Interestingly, as candidates reach the end of their available funds, the significance of overall spending advantage seen in the previous two models falls away. Additionally, incumbents, who spent the first half of their funds much faster than challengers, slowed down their spending significantly and actually reached this point about six days after challengers.

**Table 3. Ninety Percent of Expenditures Vs. Early Voting**

Variable	Estimate	Standard Error	T Value	P Value
Intercept	10.779	2.356	4.574	<.001***
Early Voting	7.982	2.225	3.587	<.001***
Incumbency	-6.503	2.144	-3.033	.003**
Party	-.886	2.064	-.429	.668
Spending	.013	.037	.354	.723

$R^2 = .0494$   $F=5.481$  on 422 degrees of freedom

\*  $p<.05$ , \*\* $p<.01$ , \*\*\* $p<.001$

### Strong Relationship Does Not Extend to Other Measures of Early Voting

The final important finding from these models is the lack of importance of variables measuring either the number of days from the election at which early voting begins or the percentage of the electorate voting early. When added to the model, neither of these variables has a significant impact on either the dependent variable or the model as a whole. This suggests that merely the possibility of voters going to the polls before Election Day forces campaigns to consider moving their spending earlier, even in places where this voting does not occur particularly early or in particularly large numbers.

### Model Does Have Significant Limitations

Finally, it is important to consider the significant limitations of these models. All three iterations of the model had relatively low predictive value, explaining about 13, 7, and 5 percent of the variability in the dependent variable, respectively. There is clearly something this model does not, or sim-

ply cannot, consider. There could be an unknown variable causing this effect, but it could also be the result of relatively complex and immeasurable randomness. The large number of different people, circumstances, and situations surrounding each campaign could cause this randomness. There is an immeasurable number of variables that could cause variance in the timing of expenditures that have yet to be examined by campaign scholars. These vary from the speed at which candidates raise money, to the personal payment preferences of individual campaign consultants, to the timing of important campaign events or debates. In either case, our results hold true. The presence of early voting has a clear impact on the timing of expenditures that would be extremely different to confound with another lurking variable, and no other variable we tested has clear significance.

### **Despite Widespread Early Spending in Early Vote States, No Evidence to Suggest Electoral Advantage**

Despite data showing that campaigns do spend money earlier in states with early voting, in the six tests conducted here, there is no evidence to suggest that spending money early in conjunction with early voting actually improves candidate performance. This could be caused by early voters who are not persuadable, or it could be that we lack sufficient data or a sufficiently thorough model. There is certainly a case to be made that early spending is so widespread that there are only a handful of cases in 2008 where one candidate spent early while the other did not. Further research exploring early voting—possibly focusing on races where one candidate spent early and the other did not—could help verify this result. At face value, however, these results call into question the decision of so many candidates to spend in advance of early voting periods. The results also offer some circumstantial evidence to support arguments that candidate spending has little to no impact on elections overall. Due

to the model's construction, we cannot rule out that, on the whole, campaign spending is insignificant to outcomes, but we can conclude that early spending is.

The second set of models explored the electoral impact of early voting and early spending. Model (2) compared challenger vote share to campaign expenditure timing and the timing of early voting in a given state. The third model also compared challenger vote share to campaign expenditure timing, but replaced the timing of early voting with the volume of registrants voting early as a percentage of total voters. Expenditure timing was calculated as the number of days between when the observed challenger had spent a certain percentage of their expenditures and when the observed incumbent had spent that same amount. Each model was tested three times with this percentage calculated to 50, 75, and 90 percent of total expenditures. Both of these models used expenditure and party strength variables from Jacobson's 1978 study as controls.

### Number of Days to Vote Early and Early Expenditures Show No Electoral Advantage

Model(2)  $CV \sim CE + SD + SDED + ED + IE + P + PS$  was run three times with the main explanatory variables 'SD' (Spending Days) calculated as the number of days between when a challenger as well as the incumbent spent 50, 75, and 90 percent of their respective funds. The variable 'SDED' was also calculated three times as 'SD' multiplied by the number of days before Election Day at which general population early or absentee voting begins (zero for states without early voting).

In all three tests, the primary test variable "Spending Day Times Early Day", failed to show any significance, as did the "Spending Day" variable. The control variables taken from Jacobson's model all consistently showed significant findings, as expected given previous research using these variables. Interestingly, the 'ED'

**Table 4. Vote Share vs. Fifty Percent of Expenditures, Vote Day**

Variable	Estimate	Standard Error	T Value	P Value
Intercept	9.59E-02	2.25E-02	4.254	<.001***
Challenger Spending	1.78E-08	4.65E-09	3.815	<.001***
Spending Days	-1.60E-05	5.14E-05	-0.311	0.756
Spending Days	-3.69E-07	2.57E-06	-0.144	0.886
Early Days	-7.16E-04	2.76E-04	-2.59	0.01*
Incumbent Spending	1.47E-08	5.40E-09	2.724	0.007**
Party	8.42E-02	7.95E-03	10.597	<.001***
Party Strength	5.02E-01	4.77E-02	10.509	<.001***

R<sup>2</sup> = .651 F=57.27. 215 degrees of freedom

\* p<.05, \*\*p<.01, \*\*\*p<.001

**Table 5. Vote Share vs. Seventy-Five Percent of Expenditures, Vote Day**

Variable	Estimate	Standard Error	T Value	P Value
Intercept	9.19E-02	2.01E-02	4.58E+00	<.001***
Challenger Spending	1.78E-08	4.61E-09	3.855	<.001***
Spending Days	-4.49E-05	7.23E-05	-0.621	0.535
Spending Days	-4.73E-06	4.25E-06	-1.113	0.267
Early Days	-6.95E-04	2.60E-04	-2.676	0.008**
Incumbent Spending	1.51E-08	5.35E-09	2.829	0.005**
Party	8.54E-02	7.68E-03	11.117	<.001***
Party Strength	5.08E-01	4.45E-02	11.419	<.001***

R<sup>2</sup> = .656 F=58.58. 215 degrees of freedom

\* p<.05, \*\*p<.01, \*\*\*p<.001



**Table 6. Vote Share vs. Ninety Percent of Expenditures, Vote Day**

Variable	Estimate	Standard Error	T Value	P Value
Intercept	1.06E-01	1.94E-02	5.50E+00	<.001***
Challenger Spending	1.73E-08	4.61E-09	3.76E+00	<.001***
Spending Days	-7.99E-05	9.86E-05	-8.11E-01	0.418
Spending Days Early Days	-5.67E-06	5.98E-06	-9.49E-01	0.343
Early Days	-6.60E-04	2.61E-04	-2.53E+00	0.012*
Incumbent Spending	1.46E-08	5.34E-09	2.73E+00	0.007**
Party	8.17E-02	7.61E-03	1.07E+01	<.001***
Party Strength	4.83E-01	4.38E-02	1.10E+01	<.001***

R<sup>2</sup> = .656 F=58.56. 215 degrees of freedom

\* p<.05, \*\*p<.01, \*\*\*p<.001

variable, for which there is not previous research, showed a significant negative impact on challenger vote share, suggesting that early voting in particular may actually hinder a challenger's ability to win. This is not particularly surprising; it takes time for a candidate to gain standing and name recognition as well as raise and spend money. A challenger who has less time as a result of an early voting date is, in fact, put at a disadvantage against an incumbent who likely had a head start.

### Early Expenditures and Early Voting Volume Show No Impact

Model (3) CV~CE + SD + SDEV + EV + IE + P + PS, was also run three times, according to the same methodology as Model (2). In this model, the variable 'SDEV' was calculated as 'SD' multiplied by the percentage of the electorate that voted before Election Day (zero for states without early voting).

Again, in all three tests, the primary test variable 'SDEV' failed to show any significance, as did the 'SD' variable, while the control variables taken from Jacobsen's model again consistently

showed significant findings. Unlike the lone ‘ED’ variable from the previous model, the lone ‘EV’ variable did not have a significant negative impact on challenger vote share. This suggests that voting done particularly early may disadvantage challengers who may not have time to raise money, run ads, or make themselves known. Simply having a large portion of the population voting early does not have that same effect. In fact, one might hypothesize that larger populations voting early could actually mitigate the effects of the ‘ED’ variable by forcing challengers to start their campaigns early, but that’s a question for another study

**Table 7. Vote Share vs. Fifty Percent of Expenditures, Vote Volume**

Variable	Estimate	Standard Error	T Value	P Value
Intercept	8.80E-02	2.31E-02	3.81E+00	<.001***
Challenger Spending	1.80E-08	4.73E-09	3.82E+00	<.001***
Spending Days	-2.36E-05	4.97E-05	-4.76E-01	0.634
Spending Days Early Volume	-2.84E-05	1.80E-04	-1.58E-01	0.875
Early Volume	-1.51E-02	1.92E-02	-7.85E-01	0.433
Incumbent Spending	1.44E-08	5.48E-09	2.62E+00	0.009**
Party	8.72E-02	8.01E-03	1.09E+01	<.001***
Party Strength	4.96E-01	4.83E-02	1.03E+01	<.001***

R<sup>2</sup> = .640 F=54.64. 215 degrees of freedom

\* p<.05, \*\*p<.01, \*\*\*p<.001

**Table 8. Vote Share vs. Seventy-Five Percent of Expenditures, Vote Volume**

Variable	Estimate	Standard Error	T Value	P Value
Intercept	8.42E-02	2.08E-02	4.05E+00	<.001***
Challenger Spending	1.78E-08	4.68E-09	3.80E+00	<.001***
Spending Days	-6.41E-05	7.02E-05	-9.14E-01	0.362
Spending Days	-4.10E-04	3.89E-04	-1.05E+00	0.293
Early Volume Early Volume	-1.39E-02	1.79E-02	-7.76E-01	0.438
Incumbent Spending	1.53E-08	5.48E-09	2.79E+00	0.006**
Party	8.80E-02	7.77E-03	1.13E+01	<.001***
Party Strength	5.02E-01	4.54E-02	1.11E+01	<.001***

R<sup>2</sup> = .646 F=55.98. 215 degrees of freedom

\* p<.05, \*\*p<.01, \*\*\*p<.001

**Table 9. Vote Share vs. Ninety Percent of Expenditures, Vote Volume**

Variable	Estimate	Standard Error	T Value	P Value
Intercept	1.00E-01	2.00E-02	5.01E+00	<.001***
Challenger Spending	1.73E-08	4.70E-09	3.68E+00	<.001***
Spending Days	-1.09E-04	9.72E-05	-1.12E+00	0.262
Spending Days	-3.52E-04	5.41E-04	-6.51E-01	0.515
Early Volume Early Volume	-1.32E-02	1.78E-02	-7.44E-01	0.457
Incumbent Spending	1.46E-08	5.46E-09	2.67E+00	0.008**
Party	8.40E-02	7.79E-03	1.08E+01	<.001***
Party Strength	4.75E-01	4.45E-02	1.07E+01	<.001***

R<sup>2</sup> = .644 F=55.75. 215 degrees of freedom

\* p<.05, \*\*p<.01, \*\*\*p<.001

## CONCLUSION

This study begins to fill a significant gap in the literature left by the exclusion of early voting from research on campaign expenditures and the study of campaigns at large. By no means should this be seen as an exhaustive attempt to do so. The study is limited, looking only at a single election cycle and only at U.S. House races, but it is an important first step. Early voting plays a major role in modern campaigns on the federal, state, and local levels, but the process has been segregated in the literature into its own sub-field. An adjustment must be made across the field to incorporate early voting into dozens of studies in every aspect of research into campaigns.

Rather than a comprehensive correction of this problem, this study should be seen as an attempt to expose the gap and challenge the field to fill it. The study demonstrates the significance of early voting in U.S. elections and the need to incorporate it into all lines of study. Specifically, in the findings of the first model, we see the real impact early voting has on the conduct of campaigns. Campaigns in early voting states are spending their money weeks ahead of those in states without early voting—something every avenue of research into campaigns needs to consider. This is almost certainly not a phenomenon reserved to U.S. House races and needs to be studied across the political landscape. What is more, the use of a staggered voting procedure provides a wealth of variables scholars can use to better understand voting behavior itself. The literature needs to incorporate this shift in voting patterns into every aspect of campaign research.

This study also holds real world applications, encouraging candidates and campaign strategists to reconsider their previous answers to the difficult question of when to spend money during a campaign. The findings call into question the decision of so many campaigns to sink valuable cam-

paigned funds into ad buys and “get out the vote” programs well in advance of Election Day that which are aimed solely at targeting and turning out early voters. Further research into this question is necessary to conclude decisively that early spending is a waste of money, but the findings of Models (2) and (3) suggest that the spending is ineffective. At the least, they raise the distinct possibility that spending money in advance of early voting—often seen as a common sense practice—is actually not.

Finally, the findings of these models question the impact of campaign spending at all. This study demonstrates the potential for early voting to be used as a tool for delving more deeply into the relationship between campaign spending and candidate success. Using a proportional measure of campaign expenditures, we are able to control for lurking variables previously unaccounted for in studies of a large size and rigor. The technique used in this study can help to shine light on the hotly debated question of whether or not incumbent expenditures change outcomes and offer a method for analyzing campaign expenditure effects in the future.

### Notes

1 J. Eric Oliver, “The Effects of Eligibility Restrictions and Party Activity on Absentee Voting and Overall Turnout,” *American Journal of Political Science*, Vol. 40, No. 2 (May, 1996), <http://www.jstor.org/stable/2111634>; Robert M. Stein and Patricia A. Garcia-Monet, “Voting Early But Not Often,” *Social Science Quarterly*, Vol 78, No. 3 (September 1997).

2 Robert M. Stein, “Introduction: Early Voting,” *The Public Opinion Quarterly*, Vol. 62, No. 1 (Spring, 1998), <http://www.jstor.org/stable/2749718>.

3 Paul Gronke, “Early Voting Reforms and American Elections,” *William and Mary Bill of Rights Journal* Vol. 17 (2008), [http://electionlawissues.org/symposium2008/Paul%20Gronke%20-%20Early%20Voting%20Reforms%20and%20American%20Elections\\_withAppendix.pdf](http://electionlawissues.org/symposium2008/Paul%20Gronke%20-%20Early%20Voting%20Reforms%20and%20American%20Elections_withAppendix.pdf).

4 Andrew Busch, “Campaign effects of early voting,” *Southeastern Political Review* Vol. 26, No 3 (September 1998).

5 Gary Jacobsen, “The Effects of Campaign Spending in Congressional Elections,” *The American Political Science Review* Vol 72, No. 2 (June 1978), <http://www.jstor.org/stable/1954105>; Thomas Stratmann, “Some Talk: Money in Politics. A (Partial) Review of the Literature *Public Choice* Perspectives on the Post-9/11 World,” (Jul., 2005), <http://www.jstor.org/stable/30026707>.

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9 Dennis Coates, "Additional Incumbent Spending Really Can Harm (at Least Some) Incumbents: An Analysis of Vote Share Maximization," *Public Choice* Vol. 95 No. ½ (1998), <http://www.jstor.org/stable/30024361?origin=JSTOR-pdf>.

10 Steven D. Levitt, "Using Repeat Challengers to Estimate the Effect of Campaign Spending on Election Outcomes in the U.S. House," *The Journal of Political Economy* Vol. 102, No. 4 (Aug., 1994), <http://www.jstor.org/stable/2138764>.

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