The effects of early voting on Congressional campaign expenditures

Robert M. Stein
Marvin McNeese, Jr.
Rice University

Abstract

By increasing the number of days voters are able to vote, candidates in states with early voting are forced to spend more on voter mobilization activities. The expectation is that campaign spending will rise in states with early voting, *ceteris paribus*. We study the effects of early voting on campaign spending in elections to the U.S. House of Representatives for the period 1988-2004. House races provide a modicum of control for the variety of factors that impact campaign expenditures across the 50 states. Controlling for other determinants of congressional campaign spending, we observe significantly higher congressional spending per vote cast in states with early voting. The effect of early voting on congressional campaign spending is accentuated in races with 'quality' challengers.

Revised January 2010

The effects of early voting on congressional campaign expenditures

1. Introduction

In the 2004 Presidential election 20% of all ballots cast were cast before Election Day. The proportion of ballots cast before Election Day in the 2008 Presidential election is estimated at 30% (McDonald 2008). The rise in early voting has coincided with the rapid expansion of both in-person early voting and relaxed requirements for absentee or mail-in voting in all 50 states. Previous research on early voting and many other electoral reforms (e.g., motor-voter, Election Day registration, etc.) has focused exclusively on the impact of these reforms on increasing voter turnout (see Berinsky 2005). Unexamined has been the potential effect early voting has on electoral campaigns, specifically campaign spending. A major activity of any political campaign is efforts to turnout voters who support a candidate and/or party. 'Get out the vote (GOTV)' activities precede Election Day are both labor and capital intensive. By increasing the number of days voters are able to vote, candidates in states with early voting have a strong incentive to spend more on GOTV activities. This is particularly true for quality challengers who already have a competitive advantage in unseating an incumbent and are expected to use early voting to obtain a strategic electoral advantage over their incumbent opponent. The expectation is that campaign spending will rise in states with early voting, more so when there is a quality challenger in the race.

We study the effects of early voting on campaign spending in elections to the U.S. House of Representatives for the period 1988-2004. House races provide a modicum of control for the variety of factors that impact campaign expenditures across the 50 states.

When controlling for other determinants of congressional campaign spending, we observe significantly higher congressional spending per vote cast in states with early voting. This effect is attenuated when there are quality challengers in the congressional election.

The plan of the paper is a follows. Section 2 presents a brief review of the relevant research on electoral reform and campaign finance. We integrate findings in these two research literatures to identify an explanation for how candidates and parties adapt their campaign strategies to changes in the administration and operation of elections, specifically early voting. In section 3 we draw on work from the arms race literature, specifically L.R. Richardson's *Arms and Insecurity* to develop specific hypotheses about how the strategic behavior of contesting congressional candidates varies in states with and without early voting. Section 4 presents a research design and measures for testing our hypotheses. We provide the estimation results in section 5. We conclude with a discussion of how differences in the implementation of early voting might further account for the variation in congressional campaign spending.

2. Previous research on early voting and campaign spending

Early voting

Opportunities to vote before Election Day are not new to the American electoral process. Voters have long had the opportunity to vote before Election Day by casting an absentee ballot, normally by mail (see Bensel 2004). In the past states limited this form of early voting to individuals who were unable for reasons of travel or disability to vote on Election Day at a voting place in their voting jurisdiction. The significant rise in the

number of votes cast before Election Day begins with the adoption of in-person early voting in Texas in 1988.

In-person early voting differs from absentee voting in that voters may ballot at one or more satellite voting locations, and cast a vote in person without offering an excuse for not being able to vote on Election Day (Gronke et al 2006; Stein and Garcia 1997; Stein 1998). Satellite voting locations vary by state, and may include government facilities as well as non-traditional locations such as grocery stores, shopping malls, schools, libraries, and other locations. Early voting generally is conducted on the same voting equipment used on Election Day, as opposed to vote by mail, which is conducted on paper ballots. The time period for early voting varies from state to state, but most often it is available during a period of 10-14 days before the election, generally ending on the Friday or Saturday immediately preceding the election. As of 2008 more than half the states, 31, permit in-person early voting (*Electionline* 2007). We focus our attention on in-person early voting. Though mail-in voting is more wide-spread among the states, it has not yet garnered a significant share of early voting, as has in-person early voting.[1]

The empirical expectation is that voter turnout will be higher in states with relaxed absentee voting and in-person early voting, *ceteris paribus*, than in states without these options for early voting. The added convenience of voting at multiple locations on more than one day is thought to enhance the likelihood that eligible voters will turnout. The efficacy of in-person early voting has been found to have an insignificant or marginal effect on increasing the likelihood an individual will vote (Stein and Garcia-Monet 1997; Stein 1998; Neeley and Richardson 2001; Karp and Banducci 2000; 2001; Gronke et al 2007; Kousser and Mullin 2007).

One reason why early voting has not substantially increased voter participation may be the absence of an effective means and agent for implementing early voting. Those who administer and conduct elections, county level election administrators, have limited resources with which to harness early voting opportunities into increase voter participation (e.g., engage in voter information campaigns about early voting).[2] The more likely agents for converting early voting opportunities into voter turnout are political parties and their contesting candidates. Political parties and candidates have an incentive to employ early voting as part of their electoral campaigns if these actions enhance their chances of winning the election. There is both anecdotal and empirical evidence that early voting has significantly changed the way candidates and parties conduct their campaigns. One Republican pollster aptly described the effect: "You need to divide the electorate into two groups. Run one campaign at early voters and another at Election Day voters (Nordlinger 2003)." Supportive of this assessment is the rise in the number of votes cast before Election Day (McDonald 2008b). Common to all campaigns are efforts to bring voters to the polls on Election Day. These get out the vote (GOTV) activities are expensive in terms of both labor and capital. Before the adoption of early voting GOTV activities were concentrated on the weekend before Election Day. Every day of early voting, however, is an occasion for GOTV activities, significantly increasing campaign costs. One Democratic consultant estimated that early voting has increased the cost of campaigns by 25 percent (Nordlinger 2003).

Examining absentee voting in California and Iowa, Paterson and Caldeira (1985) report that "the state in which one party mounted a substantial effort had a higher rate of absentee voting (1982:785)." This finding suggests that the effect early voting has on

voter turnout is dependent on a mediating condition, the campaign activities of political candidates and parties. Studying county party chairs in Texas Leighley (2001) and Stein, et al (2003) confirm that both political parties took significant steps to mobilize their supporters through early voting opportunities in their respective counties. Moreover, the incidence with which leaders in each party have used early voting to mobilize their base has increased over time. Leighley's 1996 survey of county party chairs found that 42% of county party chairs reported using early voting as part of their campaign strategies to mobilize partisan supporters (e.g., provide voters with transportation to the polls during early voting). In 2001 Stein et al (2003) report that 54% of Texas party chairs used early voting as part of their campaign strategies to mobilize partisan supporters.

Stein et al (2003) find that when Democratic mobilization activities are matched with significant opportunities to vote early (i.e., a greater number of sites and days of early voting) there is a significant increase in the likelihood that partisan supporters will vote. Moreover, Texas Democrats were rewarded at the ballot box in 1992 when their mobilization efforts were matched with greater opportunities to vote at non-traditional voting places including convenience stores and shopping malls (Stein and Garcia 1997). Oliver (1996) finds that in states where absentee voting requirements are most liberal and where political parties invest time and resources to mobilize absentee voters, "the levels of absentee voting rise and the characteristics of absentee voters change (1996:25)." The most important by-product of absentee voting and liberalized absentee voting is "the greater mobilizing campaigns of the Republican party (1996:25)."

These findings are consistent with and partially explain the weak relationship between early voting and voter turnout, especially among infrequent voters. In addition to

significant opportunities to vote early at places where voters are likely to be located, there must also be a partisan effort to use early voting to mobilize likely party supporters before early voting will have a positive effect on turnout. Here, however, the beneficiaries of early voting are strong partisans and likely voters. One obvious consequence of these efforts should be increased campaign spending.

Campaign spending and candidate vote shares

Research on the efficacy of congressional candidate spending on vote shares has produced ambiguous findings. Jacobson (2006:197) reports that "models of campaign spending effects range from … findings in which challenger spending has a large effect while incumbent spending has no effect at all on the vote (Jacobson, 1978,1980,1985) to estimates suggesting that spending by incumbents is at least as productive as spending by challengers (Green and Krasno, 1988, 1990; Grier,1991; Ansolabehere and Snyder, 1996; Gerber, 1988) with others falling in between (Bartels, 1991; Goidel and Gross, 1994."

The level and growth in congressional campaign spending (Stratman 2005:135) is surprisingly large given the weak and sometimes insignificant effects candidate spending has on vote shares. Why would candidates spend so much, especially incumbents, if the electoral returns on campaign expenditures are so small? Jacobson (2006) explains that this condition holds "partly because the marginal returns are small, and partly because in the tight contests produced by serious challenges even a small proportion of the vote can spell the difference between victory and defeat (2006:198)." Few incumbents ever fail in their bids for re-election (Jacobson 2006). Given this finding it should not be surprising that "campaigns are more important to challengers than to incumbents (Jacobson 2005:197)."

Studying voter support for Senatorial candidates in the 2000 presidential election Jacobson finds that "[c]hallengers gained support over time in direct proportion to their level of spending. Incumbents adjusted their level of spending to that of their challengers, and their levels of familiarity and favorability increased over time, but to a degree unrelated to how much they spent (Jacobson 2006:195)." Jacobson's findings suggest that challenger spending has a strong and independent effect on both incumbent spending and total campaign spending. Challengers seek ways to overcome their significant disadvantage at unseating incumbents. In this regard we might expect challengers to exploit any opportunity that might enhance and advance their candidacy. In turn, incumbents respond at least in kind to the efforts of their challengers, expecting very small marginal returns on their campaign spending, but sufficient to win reelection. Early voting might provide an exploitable opportunity for congressional challengers that incumbents must respond to, resulting in higher total congressional campaign spending.

3. Campaign spending as an arms race with new technology

The story of campaign spending that emerges from the extant literature is analogous to the arms race literature (Richardson 1960; Majeski and Jones 1981). Richardson's (1960) major empirical assertion was that the rate at which a nation changes its armaments level is positively related to the threat or fear that a nation associates with the armaments level of an opposing nation, negatively constrained by the economic burden of procuring its own armaments (see Majeski and Jones 1981). The advent of new technology has a significant and positive effect on both the levels and changes in levels of armament spending between nations (Hollist 1977). The introduction of new weapon technology forces both nations to adopt the new technology, often independent of the

technology's efficacy. Fearing their opponents will win an advantage with new technology, both nations spend on the new weapon systems. Similarly, in political campaigns, neither candidate can risk ignoring the potential strategic advantages that might be exploited with new voting methods like early voting. Even in the face of evidence that early voting does not turnout 'new' voters, neither opposing candidate can risk the chance that their opponent will incorporate early voting into their campaign with significant positive effects. We suspect that quality challengers, challengers who have previously held public office are more likely to incorporate early voting into their campaigns.

Several researchers (Jacobson 1990; Bond Covington and Fleisher 1985; Jacobson and Kernell 1981; Kranso and Green 1988) have demonstrated that quality challengers are more likely to succeed than less experienced challengers. Quality challengers might be expected to use early voting to obtain a strategic advantage over the incumbent. Moreover, quality challengers might be expected to have the resources, experience and voter familiarity to effectively implement an early voting strategy to defeat the incumbent House member. Notwithstanding budget constraints, challengers, especially quality challengers, are likely to use early voting to obtain a strategic advantage over their incumbent opponents. In turn, incumbents will react in kind. This would suggest that early voting will have an immediate (i.e., intercept) effect on campaign spending in the year it is first adopted by a state and continue to have the same effect over time. Given the small number of competitive congressional elections there is the strong likelihood that the effect of early voting on campaign spending occurs well after a state's adoption of early voting and only when both quality challengers and

incumbents have learned how to incorporate early voting into their respective campaigns. We further suspect that early voting may enable challengers, especially quality challengers to reduce the spending advantage that incumbents traditionally experience over their challengers. An incumbent's lack of responsiveness to the challenger' spending on early voting activities might reduce the gap between incumbent and challenger spending. Unlike in the Richardson model where combatant nations are equally responsive to new technology, we expect challenger spending to be more responsive to early voting than incumbent campaign spending.

Controlling for other determinants of congressional campaign expenditures, we hypothesize that:

H_1: States with early voting will experience higher total congressional campaign expenditures per vote cast.

H_2: The effects of early voting on total congressional campaign expenditures will increase with additional years of early voting in the state.

H_3: The effects of early voting on congressional campaign expenditures will be greater in congressional elections where a quality challenger is running.

H_4: The ratio of incumbent to challenger spending is lower in early than non-early voting states.

H_5: The ratio of incumbent to challenger spending is lower in early than non-early voting states when a quality challenger is contesting an incumbent's reelection.

4. Research design, data and measures

To test our hypotheses we have compiled campaign expenditure data for all congressional contests between 1984 and 2006.[3] State governments are responsible for

adopting and implementing early voting.[4] All congressional contests in states with early

voting are conducted with in-person early voting. Estimating the effect of early voting on

congressional campaign spending requires that we assign the same value for our measure

of early voting and years of early voting to all congressional districts for the same state

and congressional election (i.e., year). We estimate separate models for total, incumbent

and challenger congressional campaign spending by year and district. Our dependent

measure in each model is spending per vote cast in constant 1983 dollars. We also

estimate a model for the ratio of incumbent to challenger campaign spending (per vote

cast in constant 1983 dollars). This specification of the our dependent measure allows us

to assess how early voting effects the responsiveness of incumbent and challenger

spending to each other under conditions of early voting and the presumed spending

advantage incumbents have over their challengers.

The literature identifies several factors that influence campaign spending that we

have included in our model as controls. Competitive congressional elections are likely to

generate more campaign spending. We identify competitive congressional elections in

two ways: contests where incumbents were defeated and contests where a quality

challenger contested the incumbent's reelection. Because we are interested in the

spending of incumbents and challengers our analysis is limited to non-open seat races.

Consistent with Jacobson's (1985) findings we expect that spending will be

positively related to the defeat of an incumbent House member. Here the anticipation of

a close race by the incumbent spurs additional spending by the defeated incumbent. The

presence of a quality challenger is expected to have an independent and positive effect on

campaign spending. We further expect the spending levels of quality challengers to be greater in early than non-early voting states.

We use a truncated version of Bond, Covington and Fleisher's (1985) measure of quality challengers. Bond et al. place quality challengers into one of three categories. The highest category identifies challengers who have held major elected office – state legislative office, statewide office and former members of Congress. The middle category includes candidates who have held any elected office, and the third category are "those who have some experience or attribute that could potentially be politically useful e.g., former congressional aides, lobbyists and political consultants (Ilderton and Bond 2006)." We employ only the first category of Bond et al's measure of quality challengers, former state legislators, former statewide office holders or, former House members. We acknowledge the conservative nature of this measure but consider this higher threshold necessary for testing our hypotheses.[5]

Several researchers (Stratmann 2005; Burton and Settle 2004; Stratmann and Aparicio-Castillo 2006) have suggested that the level and growth in campaign spending is influenced by the variable and changing costs of campaigning across congressional districts, states and over time. To account for this condition we have both deflated our campaign measure to constant 1983 dollars and included a counter for election year (1, 2, 3…13) that will measure baseline trends associated with changing costs of campaigns. We further expect that congressional spending will decrease during presidential elections years when congressional candidates can benefit from the financial coattails of their party's presidential nominee. Presidential election years are operationalized with a dummy variable where 1=Presidential election years and 0=mid-term elections.

We have included two measures of early voting in our model of campaign spending to account for the nature of the relationship, lagged or immediate, between early voting and campaign spending. If early voting has an immediate effect on campaign spending we should observe campaign spending to be significantly greater in states with early voting than states without early voting, independent of the number of elections previously conducted with early voting. If, however, the effects of early voting are lagged we would expect to observe significantly larger campaign expenditures in those states with a longer history of early voting. To capture the intercept or immediate effect of early voting we included a dichotomous variable in our model that indicates whether early voting was available in a specific state/year (1=early voting is available, 0=early voting is not available). To capture the slope or cumulative effect of early voting we include in our model of campaign spending a count variable which is the number prior elections conducted with early voting. This variable ranges between 1 and 9.[6]

5. Findings

Descriptive findings

Figure 1 show that the number of congressional elections conducted under early voting has increased monotonically since 1988 when Texas first adopted early voting. As of 2006 elections in 267 (61%) U.S. House seats were conducted with early voting. The mean total congressional campaign expenditures per vote cast in constant 1983 dollars is reported in Figure 2. Though spending in constant dollars has increased over the time series, the most pronounced pattern is the waxing and waning of congressional campaign spending between mid-term and presidential elections. As expected congressional campaign spending increases in mid-term congressional elections and declines

significantly during presidential elections. This pattern is observed throughout the time-series with two exceptions, the 1996 Presidential election and 2006 mid-term election, when the Democrats gained a majority in both the House and Senate.

[Figures 1 and 2 here]

Congressional spending per vote cast in constant dollars is highly skewed throughout the time-series. Figure 3 graphs spending per vote cast in constant (1983) dollars for each congressional election and the ratio of incumbent to challenger spending. The prominent finding is that spending trends around $1-$3 per vote cast with a few notable exceptions in each year. The skewed distribution of is relatively stable over the time series and suggests a negative binomial regression specification should be used for testing our several hypotheses.

Table 1 reports the results of an analysis of variance test for the homogeneity of mean campaign spending per vote cast by congressional district for states with and without early voting by election year. The evidence is mixed on whether early voting drives up campaign spending. In only handful election years do we observe that candidate spending, total, incumbent or challenger, is significantly greater in states with early voting than states without early voting. Moreover, the spending patterns vary over time, with greater incumbent and total spending occurring in early voting states before 1998 and higher challenger spending in early voting states observed after 1996. The robustness of these findings and the effect of early voting on campaign spending remains the subject of more extensive tests reported below.

[Table 1 here]

Regression analysis

We test our hypotheses using an interrupted time-series design (Campbell 1969; Campbell and Cook 1979). Different states have adopted early voting at different points in time with different durations of early voting over our time series. An interrupted times-series design allows us to evaluate the change in campaign spending in the same district over time with and without early voting. Most importantly, this design enables us to test whether campaign spending varies before and after the adoption of early voting and whether campaign spending varies with each additional election conducted under early voting. We estimate the following regression equation:

$$Y_t = b_0 + b_1 X_{1t} + b_2 X_{2t} + b_3 X_{3t} + b_n X_{n\,...} + e_t, \qquad (1)$$

Where Y_t = total campaign expenditure per vote cast in a district election year, X_{1t} = a counter for years, from 1 to N, the number of observations in our time-series (N=13); X_2 = a dichotomous variable scored 0 for observations before the adoption of early voting and 1 for observations after the adoption of early voting; [7] X_{3t} = a counter of years scored 0 for observations before and up to the adoption of early voting and 1, 2, 3 …9 for years after the adoption of early voting; X_n = are control variables and e_t = error. The estimates b_0 and b_1 measure, respectively the level and slope of the baseline time-series in campaign spending prior to the adoption of early voting in any state. The estimate b_2 tells us whether the early voting has an immediate or level effect on campaign spending and b_3 tells use whether early voting increases campaign spending with each additional election conducted with early voting. The expectation is that these parameter estimates will be significantly different from 0 indicating the intercept and slope effects of early voting are statistically different from the baseline trend in campaign spending.[8] We obtain parameter estimates using a negative binomial regression model. While our

dependent variable, spending per vote cast, does not behave perfectly like a traditional Poisson-count variable, it is non-negative. Also, we observe that the dependent variables exhibit over dispersion (see figure 3) further justifying use of a negative binomial distribution model for the stochastic form of the regression equation. Estimates for campaign spending were also obtained using an ordinary least squares model and a random coefficients model. Both produced substantively the same results as those reported below for the negative binomial regression model.

Table 2 reports the negative binomial regression estimates for total, incumbent and challenger campaign spending per vote cast in congressional elections between 1988 and 2006. The same model is also estimated for the ratio of incumbent and challenger spending. The exponential value (i.e., exp (*beta* + constant) of each estimate provides us with the slope value of each parameter in constant (1983) dollars when controlling for all other independent regressors.

[Table 2 here]

Consistent with hypotheses 1 and 2 we find that early voting has a significant slope and intercept effect on total campaign spending. Elections conducted under early voting have significantly higher total average campaign expenditures than elections conducted without early voting. In elections conducted under early voting we observed $.23 increase in expenditures per vote cast over total per voter outlays in congressional elections conducted in non-early voting states. The estimated average spending per vote cast in non-early voting contests is $2.26. The size of this increase may appear small, but with an average turnout of about 200,000 voters, a $0.23 increase per vote cast equals roughly $50,000.

The coefficient for the number of elections conducted under early voting is also positive and statistically significantly. One additional congressional election conducted under early voting increases the average total congressional campaign outlays per voter by $.04.

Interestingly, we observe a significant slope effect for early voting on incumbent spending but not for challenger spending. Conversely we observe a significant intercept effect of early voting on challenger spending but not on incumbent spending. Incumbent campaign spending increases significantly with each additional year of early voting. One additional year of early voting increases the average incumbent campaign expenditure per vote cast by $.047. Incumbent campaign spending is not, however, responsive to the adoption of early voting. The coefficient for early voting is positive but not statistically significant (p. < .05). Challenger spending is significantly higher in states that have adopted early voting, but is not responsive to additional years of early voting. Challenger spending per vote cast is $.16 higher in states with early voting than without early voting.

These findings were anticipated and explained earlier. Challengers were thought to be more likely than their incumbent opponents to immediately incorporate new election procedures, such early voting, into their campaign strategies. For challengers the enormous obstacle to unseating an incumbent requires they exploit any strategic advantage that might be available to them, including early voting. Conversely, the enormous advantage incumbents have in winning reelection allows them to measure their response to early voting opportunities before increasing campaign expenditures. One reason why incumbent campaign spending might be responsive to the adoption of early

voting is the presence of a quality challenger, especially one who incorporates early voting into their campaign strategy.

The ratio of incumbent to challenger spending is significantly smaller in all states with early voting but does not decline with additional years of early voting. There is a 13% decline in the ratio of incumbent spending over challenger spending in states with early voting. Whatever benefits challengers gain in campaign spending with early voting it is immediate and does not appear to change over time with the operation of early voting.

As expected our control variables are all significant and signed in the hypothesized direction. Spending among all candidates increases in elections where the incumbent is defeated, evidence that supports Jacobson's (1980) finding that increased incumbent spending is related to their defeat. Congressional campaign spending declines in presidential election years as congressional candidates compete with presidential candidates for campaign funds and rely on the partisan coattails of their respective presidential candidate. Controlling for these effects, campaign spending per vote cast in constant (1983) dollars has increased over time.

A presidential election has no significant effect on the spending ratio between incumbents and challengers. Though congressional spending declines in presidential election years, this effect does not change the relative spending advantage incumbents have over their challengers. The defeat of an incumbent is significantly related to a decline in the ratio of incumbent to challenger spending, advantaging the challenger, and partially accounting for the incumbent's defeat.

Quality challengers have a significant and positive effect on total congressional campaign expenditures, incumbent and challenger spending as well as the ratio of incumbent to challenger spending. There is a $.95 increase in total campaign spending per vote cast in elections where a quality challenger is contesting. [9] Incumbent spending is more responsive to spending by a quality challenger than a non-quality challenger. Incumbents spend $.53 more per vote cast when they face a quality challenger. Quality challengers spend $.40 more than congressional challengers who have not held elected office. The fact that incumbent spending is more responsive to spending by quality challengers is consistent with previous research (Jacobson 1980).

There is strong support for our hypothesis that early voting enhances the effect of quality challenges on campaign expenditures (H4, H5). In every instance campaign spending is significantly higher in contests where the state has early voting and a quality challenger is on the ballot. The mean total campaign outlay per voter increases $2.18 in contests with a quality challenger and early voting. Incumbent spending increases $.95 per vote cast in the same contests, while challenger spending goes up $1.27 per vote cast.

The cumulative impact of early voting on average total campaign spending is significantly greater in contests with quality challengers than without quality challengers. Figure 3 reports the predicted values of mean total campaign spending per vote cast over the ten cycles of early voting by contests with and without quality challengers. Consistent with early findings (Table 3), contests held with early voting are associated with significantly larger campaign expenditures and the spending gap between early and non-early voting contests widens. However, this gap and its growth in successive elections under early voting are both wider and steeper over the time series. The

evidence points to more expensive campaigns when quality challengers run in elections with early voting rather than without early voting.

[Figure 3 here]

6. Discussion

There is strong reason to believe that early voting has had a significant and positive effect on total congressional campaign spending. This effect is generalized across congressional districts and over time. The robustness of the effect of early voting on campaign spending appears to be strong. Early voting continues to have a significant and positive effect on campaign spending when we control for rival explanations of campaign spending. The evidence suggests that early voting has both an immediate and cumulative effect on campaign spending. Moreover, the positive effect of early voting on campaign spending is further increased when a quality challenger is on the ballot. Challenger spending and particularly spending by quality challengers is positively influenced by the adoption of early voting. Incumbent spending, however, is unresponsive to the adoption of early voting, but increases significantly with each additional election conducted under early voting. Incumbents delayed response to early voting reflects the likelihood that these candidates are running the campaign that got them elected the last time, often without early voting. Incumbents learn over time the need to incorporate early voting into their campaigns, often a lesson taught aptly by their opponents. Challengers don't learn over time the electoral benefits of early voting, in part because few repeat as challengers.

There remains much we do not know about how early voting affects campaigns and campaign spending. The adoption of early voting by states is accompanied by a

varied implementation. All states offer their voting jurisdictions (i.e., counties) some latitude in the manner with which they implement early voting. The number of days and hours of early voting and the location of early voting sites vary with the discretion of state legislation and county implementation. How does this variation in the operation of early voting impact get out the vote activities and campaign spending? Future research needs to examine the specifics of early voting (days and hours of operation and types of locations) in order to better understand how early voting impacts campaign spending.

An untested assumption in our study is that increased campaign spending from early voting is focused on GOTV activities preceding early voting periods. An investigation of congressional campaign finance reports filed with the Federal Election Commission might provide a means of examining the soundness of this assumption.

Advocates of early voting touted this electoral reform as a means of increasing voter participation, specifically among historically under represented populations. Since its adoption in Texas in 1988 early voting has spread to 30 other states and accounted for approximately 30% of all ballots cast in the 2008 Presidential election. In spite of the popularity and breadth of early voting its promise of increasing and diversifying the American electorate remains illusive. Though early voting may not have achieved its anticipated effect on turnout it seems to have had an unanticipated and less desirable impact on electoral campaigns and campaign spending. Early voting, both in-person and mail-in voting is likely to grow posing a serious challenge to those who seek to constrain campaign spending and the requisite demands on candidates to raise campaign funds. Our findings suggest that early voting promises to steadily increase campaign spending in the future.

Bibliography

Ansolabehere, Stephen, John M. De Figueiredo and James M. Snyder Jr. 2003. "Why is there so little money in U.S. politics?" *Journal of Economic Perspectives* 17:105-130

Barreto, Matt; Matthew Streb; Mara Marks; and Fernando Guerra. 2006. Do Absentee Voters Differ from Polling Place Voters? *Public Opinion Quarterly* 70 (2): 224-234

Bartels, Larry M. 1991. "Instrumental and "Quasi-Instrumental" Variables." *American Journal of Political Science*, 35 (3):777-800.

Baum, Christopher, Mark E. Schaffer and Steven Stillman. 2002. "Instrumental variables and GMM: Estimation and Testing." Boston College Economics Work Paper 545. http://faculty.washington.edu/ezivot/econ583/ivreg2_bcwp545.pdf

Bensel, Richard. 2004. *The American Ballot Box in the Mid-Nineteenth Century*. Cambridge, UK: Cambridge University Press.

Berinsky, Adam 2005. "The Perverse Consequences of Electoral Reform in the United States, *American Politics Research* 33 (3):471-491.

Berinsky, Adam, Nancy Burns and Michael Traugott. 2001. "Who Votes by Mail? A Dynamic Model of the Individual-Level Consequences of Vote-By-Mail Systems." *Public Opinion Quarterly* 65 (2): 178- 197.

Bond, Jon R., Cary Covington and Richard Fleisher. 1985. "Explaining Challenger Quality in Congressional Elections." *The Journal of Politics* 47 (2):510-529.

Burton, Abrams A. And Russell F. Settle. 2004. "Campaign-Finance Reform: A Public Choice Perspective." *Public Choice* 3:379-400

Campbell, Donald T. 1969. "Reformsas Experiments,: *American Psychologist* 24:409-29.

_____ and Thomas D. Cook. 1979. *Quasi-Experimentation: Design and Analysis for Field Settings.* Chicago: Rand McNally.

Dubin, Jeffrey and Gretchen Kaslow. 1996. Comparing Absentee and Precinct Voters: A view over time. *Political Behavior* 18 (4): 369-392.

Dyck, Joshua and James Gimpel. 2005. "Distance, Turnout and the Convenience of Voting." *Social Science Quarterly* 86 (3): 531- 548.

Electonline, *Voting Information*
http://www.pewcenteronthestates.org/initiatives_detail.aspx?initiativeID=45150

Gerber, Alan. 1998. "Estimating the Effect of Campaign Spending on Senate Election Outcomes Using Instrumental Variables." *The American Political Science Review* 92 (2):401-411.

Goidel, Robert Kirby, and Donald A. Gross. 1994. "Strategic Calculations and Quality Challengers in United States House Elections, 1986-1990." *Southeastern Political Review* 22 (2):203-221.

Green, Donald Philip Green and Jonathan S. Krasno. 1988. "Salvation for the Spendthrift Incumbent: Reestimating the Effects of Campaign Spending in House Elec... more." *American Journal of Political Science* 32(4):884-907.

Green, Donald Philip and Jonathan S. Krasno. 1990. Rebuttal to Jacobson's "New Evidence for Old Arguments". *American Journal of Political Science* 34 (2):363-372

Grier, Kevin, and Michael Munger. 1991. "Committee Assignments, Constituent Preferences, and Campaign Contributions to House Incumbents." Economic Inquiry 29 (1):24-43.

Gronke, Paul; Eva Galanes-Rosenbaum; and Peter Miller. 2007. Early Voting and Turnout. *PS: Political Science and Politics* 40: 639-645.

Hamilton, Randy. 1988. American All-Mail Balloting: A Decade's of Experience. *Public Administration Review* 48 (5): 860-866.

Hanmer, Michael and Michael Traugott. 2004. The Impact of Voting by Mail on Voter Behavior. *American Politics Research* 32 (4): 375-405.

Hollist, W. Ladd. 1977. "An analysis of arms processes in the United States and the Soviet Union." *International Studies Quartrly* 21:503-528.

Ilderton, Nathan A. and Jon R. Bond. 2006. "Explaining Challenger Quality in Congressional Elections Reconsidered." Paper presented at the 102nd Annual Meeting of the American Political Science Association Philadelphia, Pennsylvania
August 31-September 3, 2006.

Jacobson, Gary. 1978. "The Effects of Campaign Spending in Con- gressional Elections." American Political Science Review 72(June): 469-91.

Jacobson, Gary. 1980. Money4in Congressional Elections. New Haven: Yale University Press.

Jacobson, Gary. 1985. "Money and Votes Reconsidered: Congres- sional Elections, 1972-1982." Public Choice 47(1):7-62.

Jacobson, Gary. 1990. "The Effects of Campaign Spending in House Elections: New Evidence for Old Arguments." American Journal of Political Science 34(May):334-62.

Jacobson, Gary, and Samuel Kernell. 1981. *Strategy and Choice in Congressional Elections*. New Haven, CT: Yale University Press.

Jacobson, Gary C. 2006. "Campaign spending effects in U.S. Senate elections: Evidence from the National Annenberg election survey," *Electoral Studies* 25:195-226

Karp, Jeffrey A. and Susan A. Banducci, 2000. "Going Postal: How All-Mail Elections Influence Turnout," *Political Behavior*. 22 (3):223-239.

Karp, Jeffrey and Susan Banducci. 2001. Absentee Voting, Mobilization, and Participation. *American Politics Research* 29 (2): 183- 195.

Knack, Steven. 1995. Does " 'Motor Votor' Work? Evidence from State-Level Data." *Journal of Politics 57* (3): 796- 811.

Kousser, Thad and Megan Mullin. 2007. Does Voting by Mail Increase Participation? Using Matching to Analyze a Natural Experiment. *Political Analysis* 15 (4): 428-445.

Leighley, Jan E. 1995. "Attitudes, Opportunities, and Incentives: A Field Essay on Political Participation." *Political Research Quarterly* 48(1):181-209.

Leighley, Jan E. 2001. *Strength in Numbers? The Political Mobilization of Racial and Ethnic Minorities*. Princeton: Princeton University Press.

Lewis_Beck, Michael S. and John R. Alfrod. 1980. "Can Government Regulate Safety? The Coal Mine Example," *American Political Science Review* 74:745-756.

Lott, John R. 2000. "A simple explanation for why campaign expenditures are increasing: The government is getting bigger." *Journal of Law and Economics* 43:359-393.

Magleby, David. 1987. Participation in Mail Ballot Elections. *Western Political Quarterly* 40 (1): 79- 91.

Mann, Christopher B. and Rachel M. Sondheimer. 2009. "The Role of Local Election Officials in Promoting Growth of Mail Voting."

McDonald, Michael. 2008 http://elections.gmu.edu/early_vote_2008.html

McDonald, Michael. 2008b. "The return of the voter: Voter Turnout in the 2008 Presidential Election," *The Forum* 6:4.
http://www.bepress.com/cgi/viewcontent.cgi?article=1278&context=forum

Majeski, Stephen J. and David L. Jones. 1981. "Arms race modeling: Causality Analysis and model specification." *Journal of Conflict Resolution*25:259-288

Mann, Christopher B. and Rachel M. Sondheimer. 2009. "The Role of Local Officials in Promoting Growth of Mail Voting." Report prepared for the Pew Charitable Trusts.

Nagler, Jonathan. 1991. "The Effect of Registration Laws and Education on US Voter Turnout." *American Political Science Review* 85 (4): 1393- 1405.

Neeley, Grant and Lilliard Richardson. 2001. Who is Early Voting? An Individual Level Examination. *Social Science Journal* 38 (3): 381- 392.

Nordlinger, Gary. 2003. "Early Voting: How its changing campaign strategies, timing and costs." *Campaigns & Elections*. http://www.findarticles.com/cf_0/m2519/7_24/105657646/p1/article.jhtml

Oliver, J. Eric. 1996. "Who Votes at Home?: The Influence of State Law and Party Activity on Absenteee Voting and Overall Turnout." *American Journal of Political Science* 40(2):498-513.

Paterson, Samuel C. and Gregory A. Caldeira. 1985. "Mailing in the vote: Correlates and consequences of absentee voting." 29:766-793.

Petrocik, John and Scott W. Desposato. 2003. "The variable incumbent advantage: New voters, redistricting and the personal vote." *American Journal of Political Science*. 47: 18-32.

Richardson, L.F. 1960. *Arms and Insecurity: A Mathematical Study of the Causes and Origins of War.* Pittsburgh: Boxwood Press

Rhine, Staci. 1996. "An Analysis of the Impact of Registration Factors on Turnout in 1992." *Political Behavior* 18 (2): 171- 185.

Southwell, Priscilla and Justin Burchett. 1997. Survey of Vote-by-Mail Senate Election in the State of Oregon. *PS: Political Science and Politics* 30 (1): 53- 57.

Southwell, Priscilla and Justin Burchett. 2000a. The Effect of All-Mail Elections on Voter Turnout. *American Politics Quarterly* 29 (1): 72- 80.

Squire, Peverill; Raymond Wolfinger; and David Glass. 1987. "Residential Mobility and Voter Turnout." *American Political Science Review* 81 (1): 45- 66.

Stein, Robert. 1998. Early Voting. *Public Opinion Quarterly* 62 (1): 57- 70.

Stein, Robert and Patricia Garcia-Monet. 1997. Voting Early, But Not Often. *Social Science Quarterly* 78: 657- 677.

Stein, Robert; Chris Owens; and Jan Leighley. 2003. Electoral Reform, Party Mobilization and Voter Turnout. Paper presented at the 61st Annual Meeting of the Midwest Political Science Association, Chicago, IL, April 3-6, 2003.

Stratmann, Thomas. 2005. "Money in politics: A (partial) review of the literature." *Public Choice* 124:135-156.

Stratman, Thomas and Francisco J. Aparicio-Castillo. 2006. "Competition policy for elections: Do campaign contribution limits matter?" *Public Choice* 127:177-206.

Wolfinger, Raymond and Steven Rosenstone. 1980. *Who Votes?* New Haven, CT: Yale University Press.

Endnotes

[1] Colorado has begun a program of permanent mail-in voting which has gained significantly in voter popularity. Voters can result a mail-in ballot be sent to their mailing address before every election eliminating the need to request a mail-in ballot before each election.

[2] There is evidence (Mann and Sondheimer 2009) that in some states local election officials strongly prefer voting by mail as a means of containing the costs of elections and the administrative challenges of conducting in-person Election Day elections (e.g., voter identification).

[3] Candidate Financial Summaries (End of Cycle), USA, Federal Election Commission, http://factfinder.census.gov/servlet/datasetmainpagesvlet

[4] State statutes authorizing early voting vary across the 31 states that have adopted this mode of voting since 1988. The minimum and maximum number of early voting places, restrictions on the location of early voting places and the requirements for the duration of early voting (days and hours) varies across states in ways that might have an independent effect on campaign spending and other behaviors e.g., voter turnout. Moreover, in may states statutes merely set an upper and/or lower limit on the implementation of early voting, leaving significant discretion to local election administrators in the choice of early

voting locations. These data are not yet readily available to researchers and await collection.

[5] We thank Jon Bond for providing us data on the quality of congressional challengers in U.S. House elections between 1980 and 2006).

[6] Early voting was first adopted by Texas in 1988; consequently the Texas is scored 9 on the number of congressional elections held between 1980 and 2004 with early voting. There were no states that held a congressional election with early voting before 1988.

[7] No state has adopted early voting and subsequently dropped using this method of voting.

[8] To obtain unbiased estimates it is necessary to assume that the error terms are not autocorrelated. A Box-Jenkins (1970) analysis of the autocorrelations and partial autocorrelation functions of the residuals from Equation (1) reveals no significant autocorrelation i.e., Durbin-Watson statistics.

[9] Based on the average turnout of 200,000 voters for a congressional election, this represents an additional $190,000 spent on the campaign.

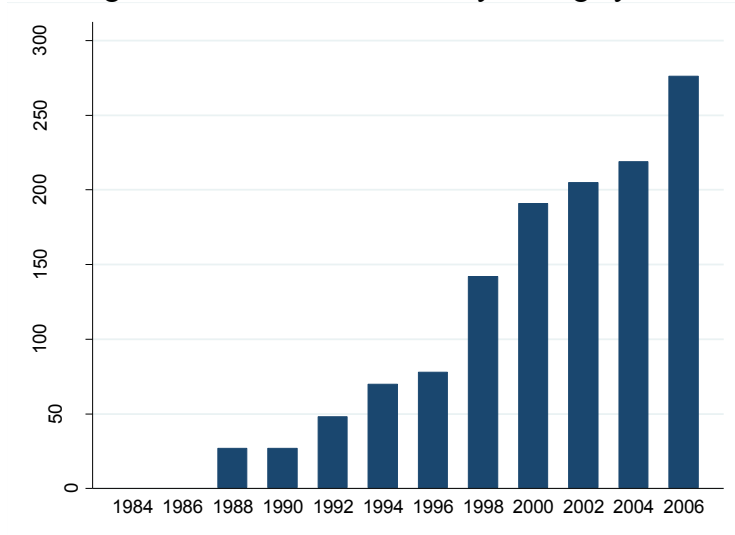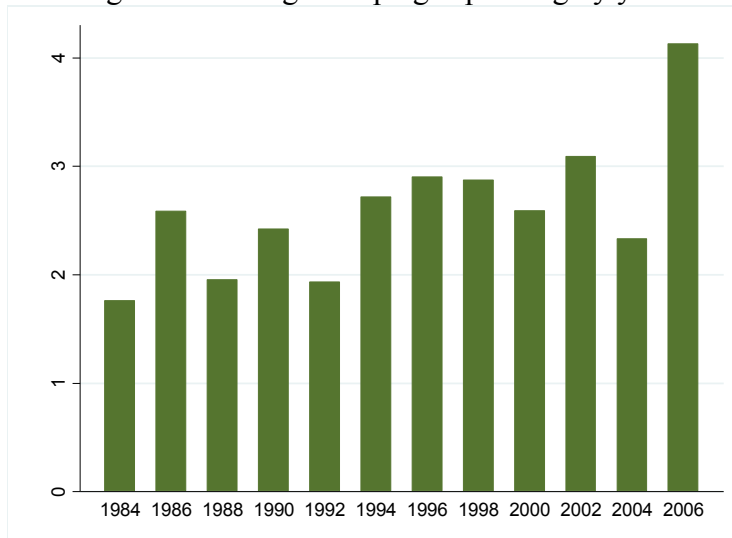Figure 1
Congressional Districts with Early Voting by Year

Figure 2: Average campaign spending by year
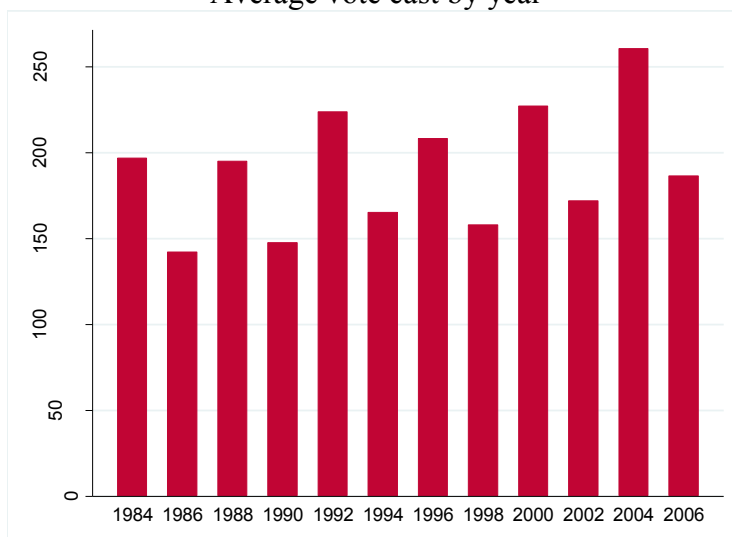
Average vote cast by year

Table 1
Analysis of Variance Results
Congressional Campaign Spending Per Vote Cast
by Early and Non-Early Voting and Year

Year		N	Total		Incumbent		Challenger		Incum/Chall	
			Mean	SD	Mean	SD	Mean	SD	Mean	SD
1988	Non-Early voting	408	1.94	1.78	1.53	1.26	0.41	.829	23.41	80.19
	Early voting	27	2.22	1.48	2.00*	1.34	0.22	.221	14.04	17.78
	Total	435	1.95	1.77	1.56	1.27	0.40	.813	22.83	78.57
1990	Non-Early voting	408	2.36	1.92	1.99	1.56	0.38	.759	64.26	263.02
	Early voting	27	3.16**	2.84	2.58*	2.07	0.58	1.089	11.23	19.81
	Total	435	2.42	2.00	2.03	1.60	0.40	.783	61.84	257.20
1992	Non-Early voting	387	1.90	1.86	1.45	1.40	0.44	1.083	18.96	58.05
	Early voting	48	2.26	1.87	1.80	1.51	0.45	.696	19.08	24.89
	Total	435	1.94	1.86	1.49	1.41	0.45	1.047	18.98	55.30
1994	Non-Early voting	365	2.69	2.42	2.04	1.83	0.66	1.031	24.41	194.11
	Early voting	70	2.84	2.44	2.13	1.80	0.71	1.062	15.13	36.10
	Total	435	2.72	2.42	2.05	1.82	0.66	1.035	23.01	179.34
1996	Non-Early voting	352	2.45	2.16	1.79	1.42	0.66	1.021	15.26	33.91
	Early voting	78	4.95***	10.36	4.12***	10.04	0.82	1.811	7.90	10.45
	Total	430	2.90	4.90	2.21	4.53	0.69	1.202	14.22	31.76
1998	Non-Early voting	293	2.56	2.46	2.06	1.94	0.49	.941	23.92	62.61
	Early voting	142	3.52***	4.52	2.61***	2.35	0.92***	2.571	12.80	21.68
	Total	435	2.87	3.30	2.24	2.10	0.63	1.67	20.10	52.49
2000	Non-Early voting	244	2.44	2.53	1.88	1.65	0.56	1.260	72.08	447.79
	Early voting	191	2.78	3.34	2.08	1.96	0.70	1.623	43.20	209.43
	Total	435	2.49	2.91	1.97	1.79	0.62	1.431	49.54	363.70
2002	Non-Early voting	231	3.10	2.96	2.67	2.46	0.43	1.188	27.34	37.01
	Early voting	205	3.09	3.70	2.32	1.94	0.77***	2.490	45.37	138.96
	Total	436	3.09	3.32	2.50	2.23	0.59	1.919	36.51	102.63
2004	Non-Early voting	216	2.20	1.97	1.86	1.53	0.34	.765	50.16	143.67
	Early voting	219	2.46	2.64	1.95	2.13	0.52***	1.057	46.25	212.69
	Total	435	2.33	2.33	1.90	1.86	0.43	.926	44.22	180.83
2006	Non-Early voting	159	3.93	3.66	3.07	2.39	0.86	1.650	38.45	112.81
	Early voting	276	4.25	5.15	3.35	4.12	0.90	2.074	28.29	56.37
	Total	435	4.13	4.66	3.25	3.59	0.88	1.928	31.97	81.39

*** Significant at the .001 level; ** Significant at the .05 level; * Significant at the .10 level.

Figure 3
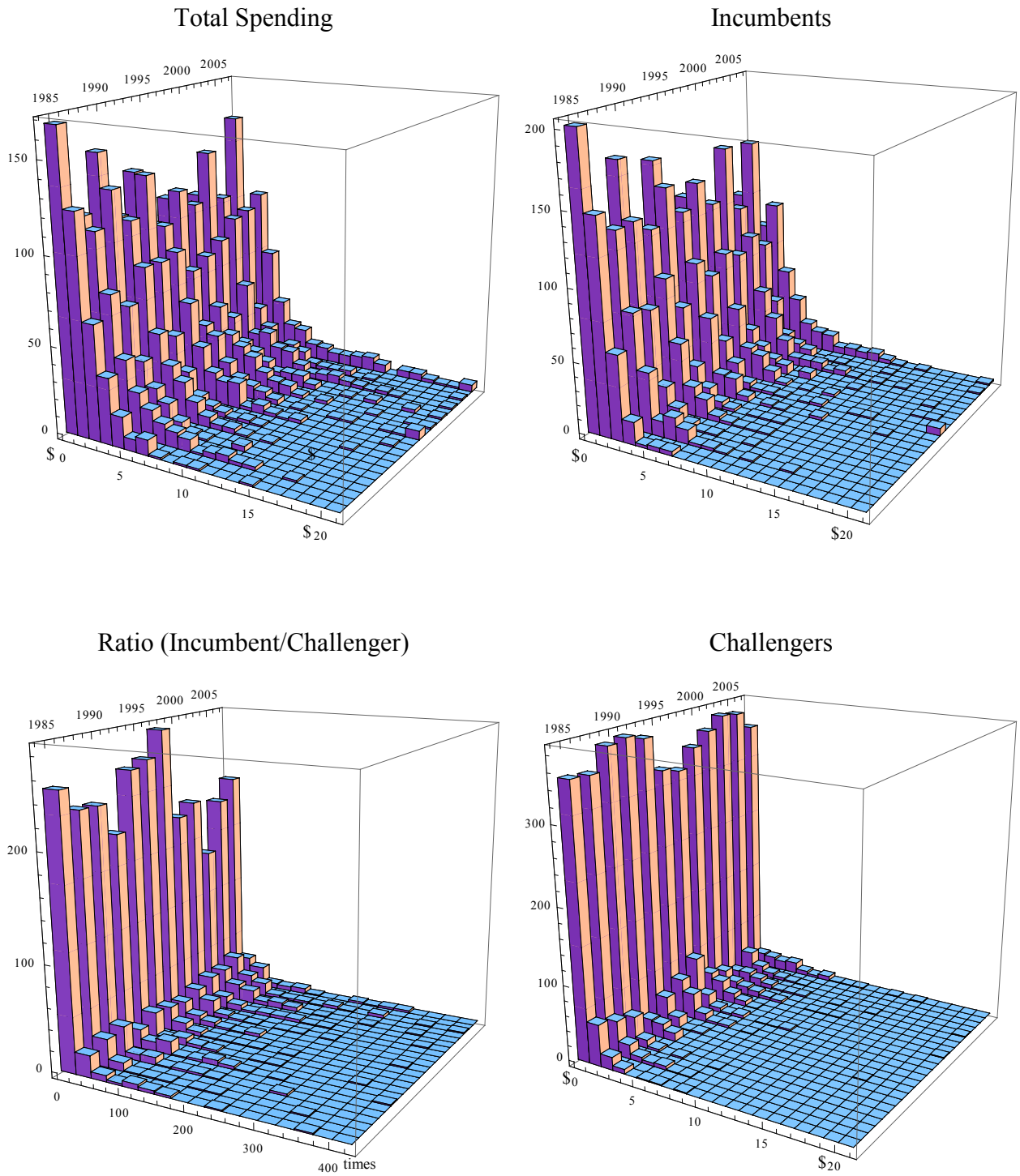## Histograms of congressional campaign spending per vote cast, by year

Total Spending

Incumbents

Ratio (Incumbent/Challenger)

Challengers

Table 2
Negative binomial coefficients for congressional campaign spending per vote cast:
1988-2006 (Constant 1983 dollars)

	Model 1	Model 2	Model 3	Model 4
DV	Total	Incumbent	Challenger	Ratio (I/C)
Early Voting (EV)	0.097**	0.037	0.261***	-0.160*
	2.08	0.80	3.04	-1.80
Years of Early Voting	0.017**	0.027***	-0.009	0.016
	1.98	3.25	-0.59	0.91
Quality Challenger* (QC)	0.350***	0.271***	0.547***	-0.940***
	9.83	7.61	8.59	-13.65
EV*QC	0.228***	0.135*	0.391***	-0.596***
	2.93	1.77	2.94	-3.51
Cycle Counter	0.049***	0.050***	0.047***	0.057***
	11.66	11.98	5.96	7.61
Incumbent Defeated	0.603***	0.353***	1.080***	-1.978***
	11.16	6.47	12.22	-14.72
Presidential Year	-0.292***	-0.290***	-0.298***	-0.044
	-11.47	-11.48	-6.28	-0.96
Constant	0.816***	0.538***	-0.602***	2.756***
	26.54	17.43	-10.37	53.59
ln(alpha)	-1.668***	-2.662***	-0.624***	0.448***
	-29.04	-20.81	-8.87	20.00
alpha	0.189***	0.070***	0.536***	1.566***
	17.41	7.82	14.22	44.61
N	3317	3317	3317	3317
Pseudo R^2	0.044	0.0406	0.0492	0.0205

Z-scores in italics. *** Significant at the .001 level; ** Significant at the .05 level; * Significant at the .10 level.

Figure 4

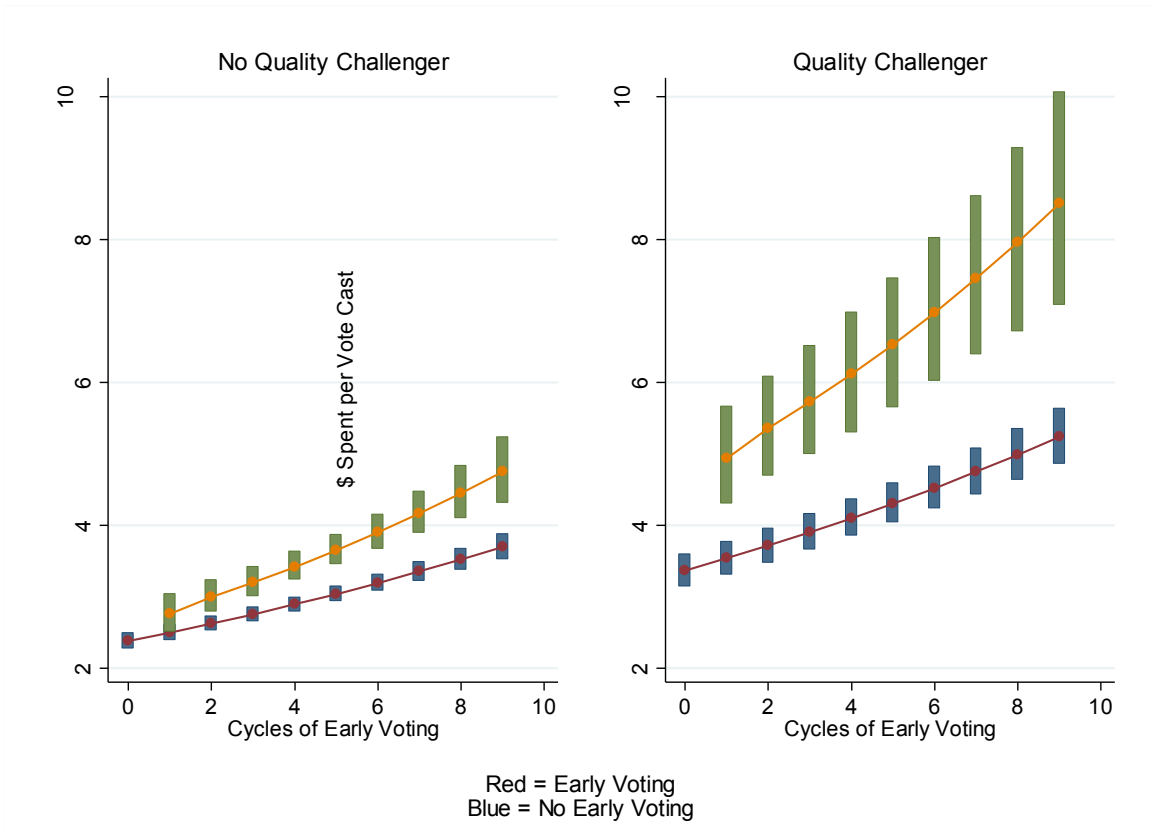### Substantive effects of early voting on spending per vote cast by congressional candidates

Red = Early Voting
Blue = No Early Voting

Table of Values

Cycles	No EV- No QC	No EV- Yes QC	Yes EV- No QC	Yes EV- Yes QC
0	$ 2.37	3.37	2.37	$ 3.37
1	2.49	3.54	2.75	4.92
2	2.62	3.71	2.99	5.34
3	2.75	3.90	3.20	5.71
4	2.89	4.10	3.42	6.10
5	3.04	4.30	3.65	6.52
6	3.19	4.52	3.90	6.97
7	3.35	4.75	4.17	7.45
8	3.52	4.99	4.46	7.97
9	$ 3.69	5.24	4.77	$ 8.52

Appendix 1: State adoption of early voting by year

States	Year
Texas	1988
Colorado, Iowa, Oklahoma, Wyoming	1992
Arizona, Idaho, New Mexico, Nevada, Tennessee, Vermont	1994
Arkansas, Kansas	1996
Alaska, California, Hawaii, Montana, North Dakota	1998
Florida, Maine, North Carolina, Nebraska, Wisconsin	2000
West Virginia	2002
Georgia, Indiana, South Dakota	2004
Illinois, Louisiana, New Jersey, Ohio	2006