Effects of Campaign Spending in Local Nonpartisan Elections

Todd Donovan  
Department of Political Science  
Western Washington University

Abstract

This paper examines the effects of campaign spending in non-partisan local contests held in small to mid-sized communities. Given the low information environment of such contests, candidate spending - even at very low levels, may have substantively important effects. Other things being equal, a candidate who spent 1% more than an opponent in a two-candidate contest received .243% more of the vote. Preliminary analysis suggests that rather than bringing more voters to the polls, campaign spending on local races increased the rate at which participating voters completed their ballots. These findings have implications for proposals to limit spending in local races.

Paper prepared for the 2007 Western Political Science Association Meeting. Las Vegas, NV. March 8 - 10.
Introduction

This paper examines the effects of campaign spending in non-partisan local elections in small and midsized communities. It contains 4 sections: The first section surveys existing literature on the effects of campaign spending to establish that there is a consensus that campaign spending affects a candidate’s vote share in high expenditure partisan races - with little known about such effects in low expenditure non-partisan contests. The second section examines public opinion poll data from the state of Washington, and establishes that one-third of voters report that they rely on information paid for by campaigns when making voting decisions in non-partisan races. The third section contains a statistical analysis of the effects of campaign spending in non-partisan local elections in small Washington communities in the years 2001 and 2003. The final section summarizes the research and presents the major findings and conclusions.

Research on the Effects of Campaign Spending (in Partisan Races)

At present there is a large body of empirical research examining the relationship between candidate spending and candidate vote share. Much of our understanding of the effects of spending dates from the late 1970s, when the U.S. Federal Election Commission began providing detailed accounts of candidate spending in Federal races. Given data availability, a large portion of existing research examines the effects of
spending in US Congressional (House) races. Although there are divisions among scholars about the magnitude of effects of spending on a candidate’s vote share in House races, and about whether challengers or incumbents benefit most from increased spending, two conclusions are unmistakable: Spending is related to vote share, and the larger the spending difference between two candidates, the greater the candidate spending most is advantaged. As one recent study concluded from a survey of the literature: “campaign spending is the lifeblood of American elections. A candidate’s ability to outspend an opponent is one of the keys to victory” (Bardwell 2003:816).

Jacobson and Kernell (1983) provided one of the earliest examinations of the aggregate relationship between spending and vote share. They documented that challenger vote share increases in Congressional elections as challengers spend more. Likewise, Green and Krasno (1990) studied aggregate patterns in spending and votes received and found that spending by incumbents has “a sizable effect on House vote.” Jacobson (1990) analyzed a large, random national sample of public opinion data and determined that there was a statistically significant relationship between candidate spending in US House races and the probability that a voter would change her mind about who to vote for in the final weeks of a Congressional campaign. Jacobson (1990) found the effect of challenger spending to be greater on switching voters toward supporting the challenger. In a related study, Green and Krasno (1988, 1990) found that incumbent spending also had a substantial effect on the probability a person would say they were going to vote for the incumbent. When scholars examine the effects of campaign spending in US Senate races (Abramowitz 1988, 1989; Squire 1989) and gubernatorial elections (Bardwell 2003; Goidel, Gross and Shields 1999), they reach similar
conclusions: there is a statistically significant relationship between a candidate’s share of spending in a contest and a candidate’s vote share.

Since the FEC only provides systematic spending data for Federal races, scholars have had to invest in collecting spending data in order to model the effects of campaign spending in state and local races. Although most of the literature cited above examined spending in congressional (House and Senate) races, recent advances in data collection and analysis also provide us with evidence of spending effects at the state-wide and state legislative district level (See Thompson and Moncreif 1998). Indeed, given that candidates seeking office in local contests typically have much less access to “free media” in the form of television news and coverage in regional newspapers, it is reasonable to expect that spending effects in these lower-level contests might even be greater relative to effects found in US House and Senate contests. Francia and Herrnson (2001) analyzed a representative sample of 882 state legislative contests held in 44 state between 1996 and 1998 and found:

that campaign spending and party get-out-the-vote efforts have an impact on district-level voter turnout, even when controlling for the effects of state election laws, district demographics, and concurrent high-profile elections. For every dollar state legislative candidates spent per eligible voter turnout increased by 1.2 percent.

They report further:

These findings support what most candidates and political consultants believe about election campaigns - that spending money on radio, television, direct mail, and other forms of voter contact mobilizes their supporters. As one of the candidates we interviewed in our study asserted, "The reason people spend money campaigning is that it works."
Effects of candidate spending at the local level have also been found in other nations, but there is little (if any) published evidence demonstrating that campaign spending matters in local races in smaller American places. Krebs (1998) and Lieske (1989) document effects of campaign expenditure in two large US cities (Chicago, and Cincinnati, respectively), with Lieske (1989) noting the potential of diminishing returns of such spending. Although extant research, and common sense suggests spending in any electoral context should matter, there are also reasons to expect it might not; or that it might not matter as much as in other contexts. Vote choice in smaller places might be more likely to be affected by cues that are less relevant in higher stakes, partisan contests. In a small-town setting, where little (if any) campaign expenditures are directed at television, information obtained from newspaper endorsements (Lieske 1989) and slate-group endorsements (Davidson and Fraga 1988) may mute effects of low levels of spending on things like radio ads, brochures, yard signs, and direct mail. V. O. Key (1949:11) also notes that in small settings a form of "immature politics" exists, where substantial voter information about candidates may come from personal contacts with the candidates, and/or from friends and neighbors who know the candidate personally (Key 1949: 110). This parochialism of information flow may be most pronounced in down-ballot races that receive little attention from the press (Key 1949:38' Bowler, Donovan and Snipp 1993).

Eagles (2004) focused on the effectiveness of campaign spending at the local (constituency) level in Canadian Federal elections from 1993 – 2000 and concluded that “comparatively greater local spending by candidates enhances their vote shares, and diminishes that of rivals.” Depending on the year and the candidate’s party, Eagles found
that a $1000 spending increase was associated with a full 1% increase in the popular vote for a candidate. He concluded that in dozens of close district races (that were decided by less than 5% of the total vote), campaign spending had “a reasonable prospect of altering constituency election outcomes.” An Irish study provides a benchmark for assessing the effects of low levels of campaign spending in local contests. Benoit and Marsh (2003) found statistically significant effects of challenger and incumbent spending on votes received, and noted that “not only is vote share responsive to relative spending in the elections we examine, but also that at very low levels, it is also responsive to small increases…in this case measured in the hundreds of euros” (Benoit and Marsh 2003:573).

Another important point that has emerged from this literature is that there is a dynamic relationship between incumbent and challenger spending. That is, looking at candidate fundraising over an election cycle, it appears that candidates respond to information about funds that their opponents raised by raising more money (Krasno, Green and Cowden 1994; Goldeberg, Traugott and Baumgartner 1986). Put differently, candidates tend to raise more if they are certain that their opponent is raising more money. It is important to note that candidates need to know that their opponent is raising and spending money for this dynamic relationship to hold.

To summarize, the extant literature demonstrates that higher rates of spending are associated with greater vote share, even at low levels of spending, but this relationship has not been documented in low-spending, non-partisan American elections. Despite the lack of information about the effects of spending in contests for local office, there has been notable efforts to implement strict limits (as low as $100) on campaign contributions in state and local races. The US Supreme Court has also acknowledged that
such regulations may be tolerated (Nixon v. Shrink Missouri PAC 528 U.S. 377, 2000). Evidence that campaign spending has substantive effects at very low levels may inform us about the ability of candidates to mount effective local campaigns in the face of strict limits on campaign resources.

**Do Voters Rely on Information from Campaign Spending?**

In the Spring of 1999, I commissioned a poll of registered voters in the state of Washington. Applied Research Northwest of Bellingham, Washington was commissioned to conduct the poll of 400 voters.¹ One goal of the survey was to determine which sources of information voters reported using when making voting decisions. The poll was designed such that separate questions about eight different sources of information were presented to respondents. Each of these questions asked if the respondent utilized the particular source of information when making decisions on ballot initiative questions, and then asked those who said yes whether the source was very important, somewhat important, or not very important.

Responses to these questions provide a basis for assessing the sources of information people use when making voting decisions in non-partisan local elections. The process of voter reasoning in non-partisan candidate races (such as the Port of Anacortes Commission race) and ballot initiative is comparable because the institutional settings for each provide voters with similar aggregate levels of information (Brockington 2003). Specifically, the major decision cue that most voters use in candidate races, partisanship, is absent when voters decide in non-partisan candidate contests and in ballot

---

¹ The survey sample was a random-digit dial, representative sample of Washington voters.
initiative contests (Bowler and Donovan 1998). Thus, I expect that voter reports of
information sources used when deciding on ballot measures also reflect the sources of
information they use when deciding in local, non-partisan candidate contests.

Table 1 illustrates that in 1999, a substantial proportion of Washington voters
reported utilizing the information provided by candidates’ campaigns. Specifically, 35%
indicated they used campaign mailings (literature) when making their decisions, and 19%
indicated they used information from radio ads when making their decisions. Of the
35% who reported they use information from campaign mailings and literature, 80%
indicated information from this source was a “very” or “somewhat” important source that
they relied upon when making their decisions. Seventy-nine percent of those claiming to
rely on radio ads when making vote decisions reported that information to be “very” or
“somewhat” important. Thus, we see that some voters do report being attentive to
campaign information that is used by candidates in low-spending contests: direct mail,
campaign literature, and radio ads.

**Effects of Campaign Spending on Vote Share in Non Partisan Local Races**

As noted in the first section, there is little in the way of existing literature that
documents the precise relationship between campaign spending and candidate vote share
in non-partisan local races in the U.S. There are at least two reasons for this. First, few
states provide detailed campaign expenditure data across a large set of local elections.
Second, the topic is of limited interest to scholars. Academic attention thus remains
focused on the effects of spending in “higher stakes” elections.

Nonetheless, it is possible to apply the methods of study discussed in Section A of
this report to assess the effects of campaign spending in local races in Washington.
Washington State’s campaign finance disclosure laws are among the most comprehensive in the US, which means that it is possible to obtain campaign spending data from local non-partisan races. The Public Disclosure Commission has provided me with these data for local non-partisan elections contested in 2001 and 2003. In this section, I use statistical models similar to those employed in the literature discussed in Section A of this report to estimate the relationship between each candidate’s share of the total campaign spending in their individual election and each candidates’ share of the vote. These data are used to estimate the increase in the percent of votes a candidate receives for each additional percent of expenditure the candidate controls in the race.

The PDC provided results and candidate spending data from a set of Washington local election jurisdictions that I selected as being broadly representative of small and midsized jurisdictions in Washington. The data set used for this analysis includes only contested local races held in odd-numbered years (2001 and 2003). Only races contested are included in the dataset. Contested races are defined as those having two candidates facing each other in the November General Election. Elections for County Council, County Commission, Port Commission, City Council and Mayor were included in the dataset if they met these criteria. The smallest jurisdiction (City of Ellensburg) had 5,600 registered voters, while the largest jurisdiction in the dataset (Whatcom County) had 95,000 registered voters. The average jurisdiction had 23,200 registered voters, compared to the Port of Anacortes jurisdiction which contained 14,300 registered voters in 2003. Details of the data set are included in the appendix of this report.

The PDC had candidate expenditure records for a total of 430 local elections in 2001 and 2003 that fit my criteria for case selection. Thus, I have data for a large range
of (low level) candidate expenditure, and a large range of election results from places that are largely similar to each other. Ordinary Least Squares regression (OLS) models are used to estimate the linear relationship between candidate spending and candidate vote share.

I used these data to generate a statistical model that estimates the following linear relationship between campaign spending and vote share:

Candidate’s % of vote = a constant + β (Candidate’s % of spending),

where β is the “slope” of the relationship between spending and vote share. Candidate’s % of the vote is defined as a candidate’s share of the total vote, relative to an opponent. Likewise, candidate’s % of spending is defined as a candidate’s share of campaign expenditures, relative to an opponent. The resulting model is this:

Candidate’s % of vote = 37.4 + .243 (Candidate’s % of Spending)

This means that across these 373 local nonpartisan elections, on average, each 1% increase in a candidate’s spending advantage over an opponent is associated with .243% more of the vote. This model using spending data explains over one-quarter of all variation in election results across these 430 elections (R2 = .28). Moreover, the estimate of the slope of the effect of a candidate’s share of spending on vote share (.243) has a standard error of just .021, making the estimated relationship between spending and vote share statistically significant at p < .0001.
Displayed graphically, a line summarizing the relationship between candidate spending share and candidate vote share appears as:

![Graph showing the relationship between estimated vote share and observed spending share.](image)

**Figure 1**

The line graphed here in Figure 1 is the best fitting linear expression of the relationship between a candidate’s share of campaign expenditure, and a candidate’s vote share. Put differently, the line in the graph summarizes the statistical relationship between spending and vote share for these non-partisan local elections in Washington state from 2001 and 2003. Moving from left to right along the lower axis, for every 1% more a candidate controls of total expenditure in her contest, she receives an additional 0.243% of the vote.²

² It is important to note that I replicated this analysis by estimating OLS models where raw vote totals (number of votes received) were estimated as a function of raw spending levels (actual dollars spent). The relationship between votes and spending in these races
Given this relationship, a candidate who controls 60% of the expenditures in one of these races is estimated to receive 51.98% of the vote, all other things being equal. When we add in a statistical control that accounts for the effect of being an incumbent, the model estimates that a candidate who controlled 60% of expenditures in one of these non-partisan local contests in Washington would receive, on average, 55.3% of the vote. Conversely, a candidate who controlled just 40% of expenditure in one of these elections is predicted to have a vote share of just 47.1% of the vote.

We can use these data and these models to make generalization about the effects of spending in non-partisan local races in small to mid-sized Washington towns. Specifically:

On average, when a candidate in one of Washington’s small town, non-partisan local election spends 1% more than her opponent, she receives .243% more of the vote than her opponent.

We can use these data to make specific estimates about the effects of low levels of candidate spending in one contest where a winning candidate outspent his opponent by a ratio of 60% to 40% (the 2003 4th District Port of Anacortes Commission race). There were 6607 votes cast in this Port of Anacortes contest. If we assume a 1% increase in spending equates to 0.243% more of the candidate’s vote share, each 1% of additional spending for incumbents is statistically significant at p < .0001, with a slope of .121. That is, each additional dollar of spending is associated with .121 additional votes. An additional $1440 dollars of spending would thus be associated with 174 votes. The margin of error for this estimate at the 95% confidence level would place the actual effect of $1440 in spending to be somewhere between 101 to 250 votes additional votes.

Using the equation predicted from the regression analysis of these elections:

\[ 37.4 + .243 \text{ (60 percent vote share)} = 51.98\% \text{ of the vote} \]

Using the equation predicted from the regression analysis of these elections:

\[ 37.4 + .243 \text{ (40 percent vote share)} = 47.12\% \text{ of the vote} \]
spending advantage for a candidate would translate into 16 additional votes for that candidate, out of the 6607 votes cast (6607 * .00243 = 16.05 votes). Likewise, a 20% advantage in spending for one candidate would, on average, translate into a net gain of 321 votes in a contest where 6607 votes were cast (20 percent * 0.243 = 4.86 percent; 6607 * .0486 = 321.1 votes). Since the winning candidate won by just 21 votes, we can be quite certain that a 60:40 spending advantage may prove to be a decisive factor in a reasonably typical non-partisan local election.

The estimates in the preceding paragraph beg the question of statistical significance. My model estimates that the slope of the relationship between spending share and vote share at .243, with a standard error of .021. The standard error of the slope is a measure of the precision of the slope estimate that accounts for sample size and variation in the data, and can be used to generate a margin of error for these estimates. It indicates that in an analysis of a normal distribution of election results, we can be 68% confident that the “true” slope of the relationship between spending and vote share is one standard error greater, or one standard error less, than .243. That is, we can be 68% confident that the actual slope lies between .222 and .264.\(^5\) Likewise, we can be 95% confident the “true” slope is between two standard errors above or below .243 (or, between .201 and .285).\(^6\)

Using this .201 slope as a very conservative estimate of the effect of spending in these Washington local elections, a 1% increase in spending share still predicts at least a .201% increase in vote share, or 13 votes cast out of 6607 in the Port election example (6607 votes * .00201 = 13.2 votes). Put differently, we can be 95% confident that a 1%

\(^5\) That is, .243 - .021 = .222, and .243 + .021 = .264  
\(^6\) That is, .243 - .021(2) = .201, and .243 + .021 (2) = .285
increase in candidate share of spending yields something between 13 to 19 more votes out of 6607 cast.\textsuperscript{7} Likewise, we can be 95\% confident that the lowest possible effect of a 20\% spending advantage would be equal to something between 265 to 376 votes.\textsuperscript{8}

Table 2 about here

Results reported in Table 2 demonstrate that the relationship between candidate expenditure and vote share, as well as candidate expenditure and victory (or loss) is robust across alternate model specifications. Multivariate models that control for incumbency and gender, and similar models that estimate spending with either percent of total spending for an office or raw dollars all reach the same conclusion: Spending in non-partisan contests is a major factor affecting electoral outcomes.

Another way to demonstrate the relationship between a candidate’s share of spending in a race, and the election outcome, is to cross tabulate election results by the candidate’s share of campaign expenditure. I have done this across the 373 non-partisan local contests used in the analysis discussed in this section. Figures 2 displays the relationship between incumbent vote share at three levels of campaign spending for incumbents, and Figure 3 displays the relationship between incumbent success (in terms of winning or losing), at three levels of spending. Election outcomes (vote share and victories) are classified in terms of 1) candidates who spent less than 50\% of the money in a race, 2) candidates who spent between 50\% and 59\% of money in a race, and 3) candidates who spent 60\% or more of all expenditures in a race.

\textsuperscript{7} The high end estimate of 18 votes comes from using the largest possible slope within the 95\% confidence range: 6607 \times 0.00285 = 18.8

\textsuperscript{8} The low end estimate with 95\% confidence comes from the slope of .201, where: .201 \times 20\% = 4.02 percent; 6607 \times .0402 = 265.6 votes. The high end estimate comes from the slope of .285, where: .285 \times 20\% = 5.7\%; 6607 votes \times .057 = 376.6 votes)
The data clearly illustrate that spending in these races is associated with candidate success. In Figure 2, there were 52 incumbents who controlled less than 50% of all expenditures in their respective contests (the first column in the graph). These candidates received, on average, less than 50% of the vote. Likewise, Figure 3 demonstrates that these same 52 incumbents who controlled less than 50% of expenditures in their respective races won only half of their races. In contrast the 44 incumbents (the third column) who controlled at least 60% of expenditures in their contests received more votes, and were much more likely to win. They received, on average, 59% of the vote, and won 80% of their races.

Figures 4 and 5 provide the same cross tabulations for non-incumbents. Again, we see a clear relationship between election outcome and spending across these elections. The non-incumbent’s vote share and likelihood of victory increases as the non-incumbent’s spending increases. Candidates for local non-partisan office in Washington clearly had a much higher probability of attracting votes if they outspent their opponents in 2001 and 2003.

Effects of Spending on Turnout and Drop-off

Table 3 reports estimates of the effects of spending in local races on general election local-level voter turnout, and on voter propensity to participate in races that generated the campaign spending. In this part of the analysis, cases from cities in several smaller counties are omitted due to difficulty locating data on the total number of ballots cast at the city level (or district of a city). Again, only races that were contested are
included in the analysis. Turnout is measured as the number of votes cast in the jurisdiction / number of registered voters. Drop-off measures the total votes cast in each specific two candidate contest / the number of registered voters in the jurisdiction. Local-level census measures of education (percent adult residents having a BA degree of greater) and poverty are included as control variables. Since the data come from two different years (2001 and 2003), with the year 2001 possibly having more salient statewide ballot measures affecting turnout, the models include a dummy variable for year.

The results demonstrate that spending in local non-partisan races had no identifiable effect on turnout in a community. However, spending has notable effects on decreasing drop-off. That is, larger forces (e.g., local demographics, a pool of habitual voters, statewide ballot measures) appear to shape the composition of the local electorate, while campaign spending on races with in the jurisdiction had no effect on turnout rates. Where there is greater spending on local races, we see that voters coming to the polls are more likely to cast votes in those contests.

**Conclusions**

Although many observers bemoan the dominant role of campaign expenditures in US Congressional races and state legislative races, small-town politics has remained for some a romantic ideal of politics uncontaminated by campaign cash - a setting where face-to-face contacts and personal meetings with candidates determines election results. There is a large body of peer-reviewed, academic literature documenting the effects of campaign spending on candidate vote share in numerous partisan electoral settings, yet
there is little research conducted on the effects of spending in local non-partisan elections.

Friends and neighbors information effects may still have substantial impact on small-town politics, but the findings from this study demonstrate substantial effects of campaign expenditures also exist in contests with low levels of spending, at levels as low as several hundreds of dollars. Discussions about adopting low ($50, $100) contribution limits speculate as to whether candidates can mount effective campaigns when spending is constrained by low contribution limits. Results in this study show that campaign spending does in fact matter in local races where overall expenditures are rather low.
Table 1: Voters’ Reported Sources of Information for Deciding on Ballot Initiatives.

<table>
<thead>
<tr>
<th>Source</th>
<th>% use</th>
<th>Very Imp.</th>
<th>Some Imp.</th>
<th>Not Very Important</th>
</tr>
</thead>
<tbody>
<tr>
<td>Voter's pamphlet:</td>
<td>73</td>
<td>69</td>
<td>30</td>
<td>1</td>
</tr>
<tr>
<td>Newspapers</td>
<td>66</td>
<td>50</td>
<td>47</td>
<td>3</td>
</tr>
<tr>
<td>TV News:</td>
<td>55</td>
<td>30</td>
<td>57</td>
<td>13</td>
</tr>
<tr>
<td>Word of Mouth:</td>
<td>53</td>
<td>34</td>
<td>53</td>
<td>12</td>
</tr>
<tr>
<td>Radio News:</td>
<td>51</td>
<td>38</td>
<td>55</td>
<td>7</td>
</tr>
<tr>
<td>Campaign Mailings:</td>
<td>35</td>
<td>9</td>
<td>72</td>
<td>18</td>
</tr>
<tr>
<td>TV ads:</td>
<td>20</td>
<td>3</td>
<td>54</td>
<td>32</td>
</tr>
<tr>
<td>Other (unspecified)</td>
<td>23</td>
<td>78</td>
<td>20</td>
<td>2</td>
</tr>
<tr>
<td>Radio Ads:</td>
<td>19</td>
<td>8</td>
<td>71</td>
<td>21</td>
</tr>
</tbody>
</table>

*Question wording:* I'm going to read some potential sources of information on political issues. Please indicate whether or not you rely on each when deciding on ballot initiatives, and indicate how important the information from that source is.

Table 2: OLS estimates of effects of campaign spending in non-partisan races

<table>
<thead>
<tr>
<th></th>
<th>Vote (%)</th>
<th>Votes (#)</th>
<th>Won</th>
<th>Won</th>
</tr>
</thead>
<tbody>
<tr>
<td>% of total spending</td>
<td>.23**</td>
<td>---</td>
<td>.04**</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(.02)</td>
<td></td>
<td>(.005)</td>
<td></td>
</tr>
<tr>
<td>Spending ($$)</td>
<td>---</td>
<td>.07**</td>
<td>---</td>
<td>.00003**</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(.01)</td>
<td></td>
<td>(.000009)</td>
</tr>
<tr>
<td>Incumbent (1 / 0)</td>
<td>5.4**</td>
<td>1406**</td>
<td>.90**</td>
<td>.99**</td>
</tr>
<tr>
<td></td>
<td>(.98)</td>
<td>(366)</td>
<td>(.24)</td>
<td>(.22)</td>
</tr>
<tr>
<td>Female (1 / 0)</td>
<td>.89</td>
<td>-513</td>
<td>-.10</td>
<td>.02</td>
</tr>
<tr>
<td></td>
<td>(1.0)</td>
<td>(384)</td>
<td>(.24)</td>
<td>(.22)</td>
</tr>
<tr>
<td>Constant</td>
<td>36.1**</td>
<td>3528**</td>
<td>-2.5**</td>
<td>-.61**</td>
</tr>
<tr>
<td></td>
<td>(1.0)</td>
<td>(261)</td>
<td>(.30)</td>
<td>(.16)</td>
</tr>
<tr>
<td>R2</td>
<td>.33</td>
<td>.11</td>
<td>.18</td>
<td>.05</td>
</tr>
<tr>
<td>Number of cases</td>
<td>430</td>
<td>430</td>
<td>430</td>
<td>430</td>
</tr>
</tbody>
</table>

Note: Estimates of vote share, and total votes are OLS models. Estimates of won (1) vs. lost (0) are logistic regression models. Standard errors in parentheses.
Table 3: OLS Estimates of Turnout and Drop-off in Local Non-partisan Elections

<table>
<thead>
<tr>
<th></th>
<th>Turnout %</th>
<th>Drop-off %</th>
<th>Drop-off %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Spent per registered voter</td>
<td>.005</td>
<td>-.026**</td>
<td>-.025**</td>
</tr>
<tr>
<td>(% std. err.)</td>
<td>(.007)</td>
<td>(.006)</td>
<td>(.006)</td>
</tr>
<tr>
<td>% residents with BA degree or higher</td>
<td>.0012*</td>
<td>---</td>
<td>.0005</td>
</tr>
<tr>
<td>(% std. err.)</td>
<td>(.0004)</td>
<td></td>
<td>(.0005)</td>
</tr>
<tr>
<td>% of families in poverty</td>
<td>---</td>
<td>.0023+</td>
<td>.0034*</td>
</tr>
<tr>
<td>(% std. err.)</td>
<td></td>
<td>(.0014)</td>
<td>(.0017)</td>
</tr>
<tr>
<td>2003 Dummy</td>
<td>-.019</td>
<td>-.036**</td>
<td>-.038**</td>
</tr>
<tr>
<td>(% std. err.)</td>
<td>(.014)</td>
<td>(.012)</td>
<td>(.012)</td>
</tr>
<tr>
<td>Constant</td>
<td>.371**</td>
<td>.151**</td>
<td>.123**</td>
</tr>
<tr>
<td>(% std. err.)</td>
<td>(.019)</td>
<td>(.014)</td>
<td>(.028)</td>
</tr>
<tr>
<td>Number of cases</td>
<td>124</td>
<td>124</td>
<td>124</td>
</tr>
<tr>
<td>(R^2)</td>
<td>.06</td>
<td>.21</td>
<td>.22</td>
</tr>
</tbody>
</table>

*Note: Cases are individual election contests. Standard errors in parentheses.  
* = \(p < .05\) (two-tailed); ** = \(p < .01\) (two-tailed); + = \(p = .11\) (two-tailed)
Figure 2: Incumbent Vote Percentage by Share of Campaign Spending

<table>
<thead>
<tr>
<th>Share of Campaign Spending</th>
<th># of Incumbents</th>
</tr>
</thead>
<tbody>
<tr>
<td>less than 50% of $</td>
<td>52</td>
</tr>
<tr>
<td>50-59.9% of $</td>
<td>19</td>
</tr>
<tr>
<td>more than 60% of $</td>
<td>44</td>
</tr>
</tbody>
</table>
Figure 3: Incumbent Victories by Share of Campaign Spending

<table>
<thead>
<tr>
<th>Share of Spending</th>
<th>% Incumbents Won</th>
<th># Incumbents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than 50%</td>
<td>52</td>
<td></td>
</tr>
<tr>
<td>50-59.9%</td>
<td>19</td>
<td></td>
</tr>
<tr>
<td>More than 60%</td>
<td>44</td>
<td></td>
</tr>
</tbody>
</table>

<- # of incumbents
Figure 4: Non-incumbent Vote Percentage by Share of Campaign Expenditure

- Less than 50% of $: 137
- 50-59.9% of $: 39
- More than 60% of $: 82

<- # of non-incumbents
Figure 5: Non-incumbent Victories by Share of Campaign Expenditure

- less than 50% of $
- 50-59.9\%$ of $
- more than 60\%$ of $

pct non-incumbents who won

<# of non-incumbents
References


