

Lott Jr., John R.

Working Paper

A Simple Explanation for Why Campaign Expenditures are Increasing: The Government is Getting Bigger

Working Paper, No. 121

Provided in Cooperation with:

George J. Stigler Center for the Study of the Economy and the State, The University of Chicago Booth School of Business

Suggested Citation: Lott Jr., John R. (1995) : A Simple Explanation for Why Campaign Expenditures are Increasing: The Government is Getting Bigger, Working Paper, No. 121, The University of Chicago, Center for the Study of the Economy and the State, Chicago, IL

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George J. Stigler Center
for the Study of
the Economy and the State

The University of Chicago

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John R. Lott, Jr.

School of Law
University of Chicago
Chicago, IL 60637

November 13, 1995

George J. Stigler Center
for the Study of the Economy and the State
The University of Chicago
1101 East 58th Street
Chicago, Illinois 60637

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A Simple Explanation for Why Campaign Expenditures are Increasing: The Government is Getting Bigger

Abstract

This paper shows that most of the large recent increases in campaign spending for Federal and state offices can be explained by higher government spending. This result holds for both Federal and state legislative campaigns and gubernatorial races and across many different specifications. Evidence is also examined on whether it is the composition and not just the level of expenditures which determines campaign expenditures and whether higher government expenditures similarly results in more candidates competing for office. The data provide some indication that legislative term limits reduce campaign expenditures and increase the number of candidates running for office. Finally, by focusing on the symptoms and not the root causes of ever higher campaign expenditures, this paper argues that the current public policy debate risks changing the form that payments are made rather than actually restricting the level of competition.

JEL numbers: H1, H5, D72

Keywords: Campaign Expenditures, government growth, rent seeking

I. Introduction

Federal campaign spending for all candidates running for the House and the Senate has risen 180 percent faster than inflation from 1976 to 1994, and per capita real expenditures increased 136 percent faster than inflation.¹ In fact, even before the Federal government started formally collecting data on campaign contributions, the claims that too much money was being spent and that those giving the donations were too influential justified the 1974 Federal law restricting donations.² For Presidential campaigns accepting Federal funding, total dollar spending during the general election is thus now rigorously limited. More recently, other initiatives have proposed to limit campaign spending for congressmen and senators with detailed rules determining how much senators in different states can spend.³ At the state level, Kentucky placed a \$1.8 million spending limit on its gubernatorial candidates in 1995 (Cross, 1995, p. 4B), and similar legislation was recently introduced in virtually all state legislatures.⁴ In 1996, Californians will likely be voting on a initiative to limit campaign expenditures.⁵ However, the legislative proposals universally concentrate on the symptoms (restricting the increases) rather than on the underlying causes. Meanwhile, the debate by economists largely concerns whether limits benefit incumbents or challengers. No one explains why spending has exploded.

The real increase in campaign expenditures is not an issue limited only to the Federal government. As Table 1 indicates, candidates for state legislatures increased campaign expenditures about half as quickly as those for Federal office. Comparing the ten states for which campaign expenditure data are available for at least 4 state election cycles with both state Senate and House elections, per capita campaign expenditures rose faster than inflation by 22 percent in Missouri to as much as 185 percent faster in Oregon. State gubernatorial campaign expenditures also rose quickly. For the 36 states that held elections in 1982, 1986, and 1990, real per capita total expenditures rose 58 percent faster than

¹ This is obtained from various issues of Leading National Advertisers, Inc.'s BAR Multimedia Reports.

² A long debate exists over whether campaign contributions are made to those politicians who value the same things as the donors or whether the contributions are made to alter how the politicians vote (e.g., Stratmann, 1991 and 1992 and Bronars and Lott, 1993).

³ During the 103rd congress the main proposal on this score was the Congressional Campaign Spending Limit and Campaign Finance Reform Act (S 3, HR 3). The House bill would have provided public funding to candidates who accept spending limits, and the Senate version would tax those who breach limits.

⁴ The support for these limits is quite bi-partisan. For example, in Ohio, Republicans Gov. George Voinovich and Secretary of State Bob Taft both wanted strict limits on total campaign expenditures (Miller, 1995, p. 1B).

⁵ The limits will be set at \$300,000 for Assembly races and \$500,000 for the state Senate candidates (Grad, 1995, p. 1)

inflation over the period, and for the states that staged gubernatorial elections every four years from 1980 to 1992 experienced a 61.8 percent real increase.

Possibly, expenditures are rising because the costs of advertising are changing or because the returns to advertising greatly increased over the last couple of decades.⁶ Indeed, the change in campaign expenditures and product advertising have changed in similar ways during the last couple of decades. While real per capita product advertising in the United States grew 16 percent slower than real per capita Federal legislative campaign expenditures from 1976 to 1994, it grew 26 percent faster than the average for State legislative campaign expenditures.

Surprisingly little systematic work has been done to explain the overall secular increase in product advertising, though portions of this question have been addressed. For example, Ehrlich and Fisher (1982) show that advertising intensity may be a substitute for salesmen and thus increases with the wage of the salesmen, while increases in the buyers' wages raises search costs and thus increases their demand for product information. Pashigian and Bowen (1994) point to the greater reliance on brand names as female opportunity costs have risen. However, similar explanations in the context of campaign expenditures point to changes in the composition of expenditures (away from using labor intensive type methods of campaigning), without necessarily predicting total expenditures.⁷

Alternatively, technological innovations could play a role. Sullivan (1995) points out that new product introductions have increased because the advent of scanner technology reduces the costs of both managing new line extensions and doing the marketing research required for introducing a new product. Thus, product advertising expenditures may have increased simply because the number of new products has increased (Sullivan, 1995). However, this also provides at least one reason to expect that product advertising expenditures should have risen by more than campaign expenditures: while the number of new product announcements has been increasing over time, the turnover rate of politicians has been declining over most of the period for Federal legislative offices (Reed and Schansberg, 1992).

While the work explaining how product advertising has varied over time is scarce, comparable work on political markets is even scarcer. The only related papers that explain the trends in total campaign

⁶ Of course, this first point depends upon given one's beliefs about the demand elasticity for advertising. To my knowledge, there are no studies that measure the elasticity of demand for advertising.

⁷ Again, this depends upon the demand elasticity of advertising expenditures

expenditures discuss the incentives of individual politicians. Snyder (1990 and 1992) deals with contributions and Lott (1987a and 1990) focuses on expenditures by asking how past investments in reputation influence future contributions and expenditures and how these actions will vary over an individual politician's life cycle.⁸ While Snyder finds that contributions decline with age and Lott asks whether increased expenditures by the incumbent or the challenger changes his opponent's expenditures and both look at the effect of tenure, no implications are drawn for how total campaign expenditures have been changing over time. It is not even clear that these results imply systematic changes in aggregate campaign expenditures.

Ironically, unless the underlying motivations for the larger campaign contributions are addressed, the current approach of simply limiting total expenditures might actually increase the total societal resources devoted to campaigning. Limits on expenditures might simply change the form that expenditures take. For example, where individuals would previously write a check themselves for \$10,000 to a candidate, they now must spend the time to round up others to contribute. When dollar contributions are limited, individuals may donate more of their own time (stuffing envelopes or ringing door bells or lobbying neighbors) when they would have preferred to make a donation to hire others to do the campaigning. While restrictions raise the cost of contributions and lower the total amount of campaigning since these restrictions will force donations to take less desirable forms, the total portion of society's wealth devoted to campaigning can either increase or decrease depending upon the elasticity of demand.⁹ If demand is inelastic, total resources devoted towards campaigning increases.

The following section provides an explanation for increasing campaign expenditures based upon the growth of government: the more transfers the government has to offer, the more resources people will spend to obtain them. Section III examines some time series evidence linking federal legislative campaign expenditures and increased federal government expenditures. The main empirical work starts

⁸ Another large literature asks who gives to candidates and how politicians' behavior is affected by these contributions (see e.g., Stratmann), though only one paper in this area deals with time series data (Bronars and Lott). Another large literature deals with the marginal support produce from campaign expenditures by both incumbents and challengers (see, e.g. Kau, et. al., 1982).

⁹ The problem is similar to price controls. Controls lower the official price paid for products and reduce the quantity supplied, but this in turn leads to rent seeking by those attempting to have these attractively priced goods allocated to them. For the marginal person the total price including queuing and other costs will exceed what the market price had been. In the simple case where all competitors have the same opportunity costs the total resources spent on acquiring the good will be greater under price controls..

with Section IV which provides detailed cross-sectional time-series data linking both state legislative and gubernatorial campaign expenditures to the growth of state governments. To more rigorously control for other factors affecting the returns to campaign expenditures, Section V investigates: changes in the intensity of the competition due to events like retirements, other measures of the returns to winning, and any technological changes in running for office. Evidence is also examined on whether higher government expenditures increase the returns to higher campaign expenditures or whether the regressions might be capturing the reverse relationship. Section VI decomposes the growth in state campaign expenditures by the type of state government expenditure. Finally, Section VII asks whether higher government expenditures increase the returns to more politicians running for office.

II. The “Growing Government” Explanation for Increasing Campaign Expenditures

This paper offers a simple “growing government” explanation for why these campaign expenditures have increased so dramatically. A contributor’s demand for a politician winning office is a product of: 1) the marginal increase in the probability of the candidate winning and 2) the benefit or reward produced by having the politician win elected office. This benefit may include pecuniary as well as psychological rewards. If one’s candidate wins, that can mean either increased expected transfers to those one values or to oneself. In either case, the benefits are related to the size and scope of the government. As government has more favors to grant, the resources spent in trying to obtain those favors should increase.¹⁰

In general, rent seeking obviously takes many forms (Tullock, 1967).¹¹ Specifically with regard to government transfers, Browning (1974) and Tullock (1974) have also described the time investments made by politicians and bureaucrats in competing for resources. In addition, constituents and other interest groups obviously spend time assisting campaigns to affect political wealth transfers. If these costs were as easily measurable as campaign expenditures, one would expect to find that they also vary

¹⁰ While this paper asks how the size of government affects competition in the political market, Crain and Oakley (1995) provide interesting evidence that the size of government is affected by constitutional restrictions on the political market such as term limits for governors and whether an initiative process is present. Others have looked the relationship between the organization of Congress and spending by looking at the effect of congressional tenure on whether politicians vote for increased spending (Reed and Schansberg, 1994 and Lott and Bronars, 1993). Dick and Lott (1993) also argue that legislative term limits will reduce the size of government.

¹¹ Organizations like Common Cause are quick to point to gifts, junkets, meals, and drinks bought by lobbyists.

with the size of government. While Laband and Sophocleus (1992, pp. 969-70) mention PACs and broadly discuss how rent seeking in political markets can involve campaign contributions, even they do not include campaign expenditures in their measurement of the United States' rent seeking costs.¹²

There is also the question that government transfers take many forms, and if the argument presented here is correct, increased abilities to transfer wealth in any form should lead to increased campaign expenditures. Government expenditures are just one proxy for this increased ability to create transfers. For example, the growth in the Federal government's importance relative to the states (especially on broad regulatory questions and determining the use of state funds) is consistent with the earlier mentioned evidence that Federal campaign expenditures have increased more quickly than state campaign expenditures over time. The following evidence examines expenditures simply because it is the most easily measured. No measure exists across states that allows us to compare the changing level of transfers created through government regulations.

To determine whether the "growing government" explanation is correct, other explanations must be controlled for and will be discussed in more depth in Section V. Yet, altruism is certainly one alternative explanation for campaign donations. Presumably, higher campaign contributions include the possibility that giving to campaigns is like giving to charitable organizations in that it increases with income (e.g., Roberts, 1984). Changing opportunity costs as measured by income might affect the mix of campaign produced information and thus might affect total campaign expenditures in an analogous way to our discussion of Ehrlich and Fisher's (1982) and Pashigian and Bowen's (1994) work. In addition, enough campaigns may have become closer contests over time and thus caused expenditures to rise for a reason that is completely unrelated to the level of government wealth transfers. For example, retirements generally increase the number of candidates who compete for a seat and are associated with increased campaign expenditures.

¹² Laband and Sophocleus (1992, p. 970) explain their choice to exclude campaign contributions by writing that, "money is, as noted by many previous researchers, but an instrumental variable in the production of favorable votes."

III. Some Suggestive Time-Series Evidence for Federal Legislative Offices

Federal data for legislative offices are limited by the fact that data on campaign donations and expenditures were not systematically reported until the 1975-1976 election cycle. Using the data up until the most recent election thus covers only 10 election cycles, and thus can only be viewed as suggestive. The only major change in campaign finance laws occurred in 1974, prior to when the campaign data were collected. The "Growing Government" hypothesis states that Federal election expenditures should be positively related to government expenditures.

We regress the natural log of the total real Senate plus House campaign expenditures in both the primary and general elections on the natural log of the election year's real Federal Budget expenditures. The regression attempts to measure political competition using the number of candidates running in the primary and general elections during that campaign cycle, changes in the desire to make charitable contributions or opportunity costs of voters by using per capita income, the scale effects of campaigning by controlling for the nation's population, and any secular changes that are likely to have been occurring by using a time trend variable. The sample means and standard deviations are reported in Table 2, and all values are in real 1992 dollars. This specification yields the following results:¹³

$$\begin{aligned} \text{Ln (Federal Legislative Campaign Expenditures)} &= 0.1669 \text{ Ln (Federal Gov Budget Expenditures)} \\ &\quad (2.307) \\ &-8.97 \text{ E-6 (GDP/Population)} + 2.72 \text{ E-5 Number of Candidates} - 3.64 \text{ E-8 Population} \\ &\quad (0.799) \quad (0.83) \quad (2.215) \\ &+ 0.1061 \text{ Time Trend} + 32.304 \\ &\quad (2.768) \quad (8.554) \quad \text{Adj-R}^2 = 0.9770 \quad \text{Observations} = 10 \quad (1) \\ &\quad \text{DW-statistic} = 2.7189 \end{aligned}$$

$$\begin{aligned} \text{Ln (Federal Legislative Campaign Expenditures)} &= 1.229 \text{ Ln (Federal Gov Budget Expenditures)} \\ &\quad (4.54) \\ &+ 0.0002648 \text{ Number of Candidates} - 14.68 \\ &\quad (3.39) \quad (1.97) \quad \text{Adj-R}^2 = 0.8660 \quad \text{Observations} = 10 \quad (2) \\ &\quad \text{DW-statistic} = 1.878 \end{aligned}$$

¹³ The data on total real Senate and House campaign expenditures in both the primary and general elections along with the data on the number of candidates running in the primary and general elections during a campaign cycle were obtained from press releases published by the Federal Election Commission. Data on population, gross national product, and the Federal budget expenditures were obtained from the Statistical Abstract of the United States.

absolute t-statistics are shown in parentheses. We also reestimated these specifications by replacing the logarithmic values for campaign and budget expenditures with their per capita values.

$$\begin{aligned}
 &(\text{Federal Legislative Campaign Exp./Population}) = 0.001198 (\text{Federal Gov Budget Exp./Population}) \\
 &\quad\quad\quad (2.291) \\
 &+ 0.00007 (\text{GDP/Population}) + 0.0003 \text{ Number of Candidates} + 3.08 \text{ E-7 Population} \\
 &\quad (0.884) \quad\quad\quad (1.576) \quad\quad\quad (2.013) \\
 &- 0.77668 \text{ Time Trend} - 71.584 \quad\quad\quad \text{Adj-R}^2 = 0.8611 \quad \text{Observations} = 10 \quad (3) \\
 &\quad (2.041) \quad\quad\quad (2.080) \quad\quad\quad \text{DW-statistic} = 1.5857
 \end{aligned}$$

$$\begin{aligned}
 &(\text{Federal Legislative Campaign Exp./Population}) = 5.379 \text{ E-4} (\text{Federal Gov Budget Exp./Population}) \\
 &\quad\quad\quad (3.50) \\
 &+ 4.752 \text{ E-4 Number of Candidates} - 1.510 \quad\quad\quad \text{Adj-R}^2 = 0.8344 \quad \text{Observations} = 10 \quad (4) \\
 &\quad (3.58) \quad\quad\quad (2.24) \quad\quad\quad \text{DW-statistic} = 1.9949
 \end{aligned}$$

Rerunning regressions (1) and (3) using the Cochrane-Orcutt method produces virtually the same estimates.¹⁴

The only variables that are consistently significant at the .10 level for a two-tailed t-test are the ones that measure Federal budget expenditures. However, not only are the budget variables consistently significant, they also indicate some economic importance. A one standard deviation change in either of the measures of the Federal budget produces more than a one standard deviation change in campaign expenditures in specifications 1 and 3, while a one standard deviation change in the Federal budget explains over half of a one standard deviation change in campaign expenditures in specifications 2 and 4. The impact of government expenditures on campaign expenditures can be seen in another way. For example, while real per capita Federal budget expenditures increased from \$4,219 to \$5,320 between 1976 and 1994 and real per capita Federal legislative campaign expenditures rose from \$1.12 to \$2.64,

¹⁴ Rerunning specifications 1 and 3 using the Cochrane-Orcutt method raises the t-statistic of Ln (Federal Gov Budget Expenditures) to 2.647 and of Federal Gov Budget Exp./Population to 5.121.

In addition, recognizing that using population as an explanatory variable on the right hand side of equations (3) and (4) can produce artificial collinearity due to measurement error, specifications (3) and (4) were also reestimated after all the variables were multiplied by the population, though the results were essentially unchanged. Rerunning these regressions by replacing all these variables with their differences and dropping the time trend variable produces similar economic, though less statistically significant, results. For the specifications analogous to equations (1) and (3), the coefficients for the differences in the natural log and per capita government spending are significant at only the .15 level for a two-tailed t-test.

specification (3) implies that \$1.32 (or 87 percent) of the \$1.52 increase in campaign expenditures was explained by rising Federal government expenditures.

IV. Cross-Sectional Time-Series Evidence on State Campaign Expenditures

One clear drawback with using the Federal campaign expenditures is the very small number of time series observations. In addition, with so many variables increasing over time, government expenditures may be merely proxying for some other left out variables. Obviously, cross-sectional data are not readily available for the Federal legislature because all Federal legislators face the same set of transfers to draw on. In contrast, studying the states allows us to pool together the time-series and cross-sectional evidence on how their legislative campaign expenditures vary with the size of their state governments.

Letters to all state Secretary of States and state election commissions and follow-up telephone calls produced time series cross-sectional data on total campaign expenditures during each election cycle for sixteen states: Alabama (1990), Alaska (1976 to 1992), California (1976 to 1992), Connecticut (1988 to 1992), Florida (1978 to 1992), Idaho (1976 to 1992), Kansas (1982 to 1990), Massachusetts (1986 to 1992), Michigan (1978 to 1992), Missouri (1978 to 1990), North Carolina (1990 to 1992), New Mexico (1988 to 1990), Ohio (1990 to 1992), Oklahoma (1988 to 1992), Oregon (1972 to 1992), and Washington (1978 to 1992, with the exception of 1986) (see the appendix for a detailed discussion of these data sources). Ninety-one observations on total primary and general election campaign expenditures were obtained for the state houses and eighty-one for the state senates, though the number of observations is reduced to sixty-nine and sixty-one respectively when other variables are included to measure such things as the total number of candidates, how competitive individual's general and primary races were, and whether an incumbent was running for re-election.

However, before proceeding with a more detailed analysis of the state level data which controls for other factors explaining the changing levels of campaign expenditures, two scatter plots may help illustrate the strong relationship between campaign spending and state government spending. Figures 1 and 2 show these scatter plots of all 91 State House observations and all 81 State Senate observations linking campaign expenditures with government expenditures. The Pearson correlation coefficients for the State House observations is 0.912 and for the State Senate 0.885 (both are statistically significant at

the .01 level). Similar high and significant correlations are obtained whether one compares per capita measures of campaign and government expenditures (for the State Houses correlation is 0.9454 and for the State Senates 0.9427) or compares the natural log of these per capita values (for State Houses it is 0.8077 and the State Senates 0.8015). Thus, there appears to be a very strong relationship between government expenditures and campaign contributions.

The simplest specifications regressed total real legislative campaign expenditures for those years where both Senate and House took place on real state expenditures in 1992 dollars, the number of people living in a state, and total number of major party candidates running for office. Table 2 shows the sample means and standard deviations for these variables. Again, we included both the natural logarithmic values of the expenditure variables and also those expenditures variables on a per capita basis. The results for these simple specifications are:

$$\begin{aligned} \text{Ln (Total State Legislative Campaign Expenditures)} &= 0.64648 \text{ Ln (State Gov Budget Expenditures)} \\ &\quad (5.60) \\ + 0.000068 \text{ (Per Capita Income)} - 2.8 \text{ E-8 Population} + 0.0014 \text{ Total Candidates} - 0.75 &\quad (5) \\ (4.88) &\quad (2.10) \quad (2.65) \quad (0.31) \\ \text{Adj-R}^2 &= 0.806196 \quad \text{Observations} = 61 \end{aligned}$$

$$\begin{aligned} \text{Total State Legislative Campaign Expenditures/Population} &= 0.00093 \text{ State Gov Budget Exp/Population} \\ &\quad (14.57) \\ + 0.000197 \text{ (Per Capita Income)} - 3.6 \text{ E-8 Population} + 0.0012 \text{ Total Candidates} - 3.71 &\quad (6) \\ (4.63) &\quad (2.70) \quad (1.78) \quad (5.42) \\ \text{Adj-R}^2 &= 0.90289 \quad \text{Observations} = 61 \end{aligned}$$

The results again are not only statistically but also economically significant. While specification 5 implies that a one standard deviation change in state budget expenditures can explain 62 percent of a standard deviation change in a state's total legislative campaign expenditures, specification 6 implies that the percentage explained is 80 percent.

For gubernatorial elections the data on campaign expenditures is much more complete. Time-series cross-sectional campaign expenditure data for all 50 states is available for gubernatorial elections from the Book of the States. The dates for which the data are available are summarized in Table 1. Figure 3 shows these scatter plots of all 178 gubernatorial observations linking campaign expenditures with

government expenditures. Generally, the relationship is not as strong as with the legislative data as the Pearson correlation coefficients is 0.7720, though it is still statistically significant at the .01 level. Similar lower, though still statistically significant, correlations are obtained whether one compares per capita measures of campaign and government expenditures (0.6986) or compares the natural log of these per capita values (0.6504).

Running the same specifications using the gubernatorial data that we used for the legislative data we obtained:

$$\begin{aligned} \text{Ln (Total State Gubernatorial Campaign Expenditures)} &= 0.7481 \text{ Ln (State Gov Budget Expenditures)} \\ &\quad (7.524) \\ + 1.42 \text{ E-6 (Per Capita Income)} &- 7.66 \text{ E-9 Population} + 0.1933 \text{ Total Candidates} - 2.332 \quad (7) \\ (0.088) &\quad (0.413) \quad (6.757) \quad (1.114) \\ \text{Adj-R}^2 &= 0.6162 \quad \text{Observations} = 168 \end{aligned}$$

$$\begin{aligned} \text{Total State Gubernatorial Campaign Exp./Population} &= 0.00166 \text{ State Gov Budget Exp/Population} \\ &\quad (13.656) \\ - 8.17 \text{ E-5 (Per Capita Income)} &- 6.40 \text{ E-8 Population} + 0.3850 \text{ Total Candidates} - 1.3658 \quad (8) \\ (1.758) &\quad (2.466) \quad (5.334) \quad (1.672) \\ \text{Adj-R}^2 &= 0.6828 \quad \text{Observations} = 168 \end{aligned}$$

These preliminary regressions again imply a strong relationship between campaign and state government expenditures. Not only are the coefficients for budget expenditures statistically significant, but these two specification imply that a one standard deviation increase in per capita state government expenditures can explain between 67 and 73 percent of a one standard deviation in gubernatorial campaign expenditures. By contrast the only other variable that is consistently significant in both specifications is the total number of candidates, and a one standard deviation change in the number of candidates explains only between 26 and 31 percent of a one standard deviation change in campaign expenditures. The biggest difference between state legislative and gubernatorial specifications is that

while income was significant and positive in explaining legislative campaign expenditures it is either insignificant or negative and significant in explaining gubernatorial campaign expenditures.¹⁵

The most surprising result from this raw data is that total state legislative and gubernatorial and Federal campaign expenditures represent such a small fraction of government expenditures. Though as Tullock (1989) and Laband and Sophocleus (1992, pp. 967-8) have pointed out, this rent-seeking puzzle exists more generally. With respect to our data, total state legislative and gubernatorial campaign contributions represent about a tenth of one percent of state government expenditures, and the percentage for the federal government is less than half of them. Possibly, as Laband and Sophocleus (1988 and 1992) point out, competition to obtain wealth transfers are merely taking other forms.

V. Controlling for Other Factors that Determine the Level of Legislative Campaign Expenditures

A. Measuring Changes in Competition, the Returns to Winning Office, and the Technology of Running for Office

Obviously, other factors influence the campaign expenditures, though only the state level data affords us enough observations to control for these effects. The three most obvious variables to control for are the intensity of the competition, other measures of the return to winning a race, and any technological changes in running for office. With respect to the intensity of competition, there may be year-to-year variations in competition resulting from such things as retirements and not simply from changes in the level of government transfers. We have tried to measure competition in two ways. The first method is similar to creating a variable like that used in the analysis of Federal campaign expenditures which controls for the number of candidates running for office. This measure is however probably less useful for cross-sectional state legislative races than for federal legislative offices since, unlike the Federal system during this period, the number of seats being competed for vary not only across states but also over time within some states. To address this concern, the odd number specifications in Tables 3 through 8 not only control for the number of seats being decided in an election, but they also control for the number of candidates per seat. This effect is allowed to vary by party so that the variables take the

¹⁵ Again, recognizing that using population as an explanatory variable on the right hand side of equations (6) and (8) can produce artificial collinearity due to measurement error, both specifications were then reestimated after all the variables were multiplied by the population, though the results were essentially unchanged.

form of the number of Republican candidates (primary plus general election) divided by the number of seats and the number of Democratic candidates (primary plus general election) divided by the number of seats.

Earlier work found that campaign expenditures for the U.S. House of Representatives in 1978 were greatest for the closest expected races and that an incumbent's past tenure and past campaign expenditures reduced opponent's expenditures and increased his own (Lott, 1987a). The odd number legislative specifications also control for how competitive general election, Republican primary, and Democratic primary races are by including measures for the percent of races in these three categories: where there were no challengers, where there were no incumbents, where incumbents opposed each other, and whether the winner won by less than 5 percent, between 5 and 10 percent, between 10 and 15 percent, or between 15 and 20 percent. The intercept then represents the case where there is a challenger facing an incumbent and the election outcome is decided by 20 or more percent. Excluding the variable measuring the total number of candidates running for either the State House or Senate, there are 24 other variables that we will use to measure the degree of competition for these elective offices.

While we do not control for incumbent's past campaign expenditures, a separate unreported set of regressions were run on a smaller data set that included a variable for the percent of races with incumbents having served eight or more years as a proxy for past investments in reputation or sorting of politicians by ability. However, this variable was never significant and did not alter the results pertaining to government budget expenditures. The data sources for all the variables that control for the intensity of competition are discussed in the appendix.

Two points should be raised with respect to all of the variables which measure the intensity of the competition for office. The main issue is that it is not obvious *a priori* what the signs for the variables measuring the closeness of the elections are expected to be. For example, expenditures might be higher when races are decided by less than 5 percent than when the winning margin is between 15 and 20 percent, but it is also possible that strong candidates find it easier to attract large contributions. Alternatively, strong candidates might be formidable simply because they are in particularly good positions to deliver transfers to favored constituents. If winning candidates withhold benefits to those

who did not contribute to their campaign, it would not be surprising to find those winning by the biggest margins having the largest campaign budgets.

Another issue is that to a large extent measures of the intensity of electoral competition might be proxying for the same things being measured by the state government expenditures. After all, if the government has no transfers to hand out, it makes little difference who wins the race and there should be no motivation to vary expenditures whether races are close or not. Focusing only on state government spending, when measures of the intensity of competition are included in the regressions, is thus likely to underestimate the true impact government transfers have on determining campaign expenditures.

A second category of control variables involves other measures of the return to candidates winning office besides the size of government. For example, the benefit from winning a race depends not only on the transfers the government creates, but also on the effect the race will have on the distribution of those transfers. One way this can manifest itself is in term who controls the majority in the legislative body. Being in the majority provides large benefits in determining such questions as which pieces of legislation will come to the floor for a vote. The biggest marginal returns to a political party acquiring an additional legislative seat is thus likely to be when that marginal seat determines which party will control as the majority party in that body (Crain and Tollison, 1976 and Jung, et al., 1994). However, as a political party adds to its majority, the marginal return to it acquiring additional seats in that legislature increases if additional seats increase the certainty that the majority will be able to shape outcomes to its liking, though there are likely to be diminishing marginal returns. This is controlled for by taking the percentage difference in representation between the Republicans and the Democrats in the State House and then likewise for the Senate in each election year. The data were obtained from the Statistical Abstract of the United States.

Economists have also long argued that the value of obtaining a political office depends upon how long lived the property rights are to that office. Offices that have longer terms or that allow politicians to remain in office for an unlimited number of terms are more valuable, and politicians will spend more to try and obtain them. Crain and Tollison (1977) provide some weak evidence that campaign expenditures were greater for gubernatorial elections where the winner received a four year term than where the terms were two years long. They also found that gubernatorial term limits that restricted the number of

successive terms a governor could hold office reduced campaign expenditures. Term limits seem likely to lower expenditures if only because of the reduced incentives to creating long term sunk nontransferable political reputations, and this effect is compounded by the fact that reduced returns to creating nontransferable individual reputations also reduce entry barriers (Lott, 1987a). However, Crain and Tollison's study was quite limited in that it examined only cross-sectional evidence and was unable to control for any other factors which could affect the level of campaign expenditures.

While longer terms will increase campaign expenditures when a race takes place, the question is whether this rule will increase total campaign expenditures. Will the campaign expenditures for two two-year terms be equal to one 4-year term? The preliminary evidence from Crain and Tollison indicate that in fact total expenditures are higher for two 2-year terms, though they did not provide an explanation for why this might be so. One possibility is that there are diminishing returns to creating transfers, and that when one is elected the transfers with the greatest marginal return are made first. The second 2-year term would thus not be worth as much as the first 2-year term, and the return to getting one's favorite politician into office for four years is not worth twice as much as getting one in there for two years. Evidence for a very similar story is provided by Jung, et al. (1994) in explaining why voters do not elect identical senators from the same state.¹⁶ Their explanation focuses on how obtaining wealth transfers reduces successful constituencies' returns to obtaining additional transfers through electing another senator to represent them.

Variations based upon both the length of terms and limiting the number of terms exist for state legislative offices. If term limits reduce total expenditures, recent initiatives that have imposed legislative term limits provide an opportunity to test it. Data were obtained from U.S. Term Limits listing what states adopted legislative term limits in what years. A dummy variable was included which equaled one in the year that term limits were passed (on the belief that campaign expenditures would already have been effected due to the expectations that limits were being passed). Limiting the term limit dummy to only those states where it was already in effect would have limited the dummy to being equal to one for only two observations: California and Oklahoma in 1992. The reported regression specifications were rerun using this narrower definition of the term limit dummy, but it does not affect the results. Florida,

¹⁶ For related discussions see also Peltzman (1976).

Ohio, and Washington passed their initiatives during 1992, the last year that we have observations on those states.

With respect to each term's length, all the State House candidates in the sample served two year terms, though there was a fair amount of variation with respect to State Senates: Alabama, Alaska, California, Florida, Kansas, Michigan, Missouri, New Mexico, Ohio, Oklahoma, Oregon, and Washington have 4 years terms and Connecticut, Idaho, Massachusetts, North Carolina have 2 year terms. A variable is included for the length of each term to control for the differing values of holding these different length offices.

Finally, any empirical work must recognize the possibility of technological change. Over the time studied, innovations include computers, refinements in polling, and mass mailings. While the paper does not include specific variables that measure such changes, it is hoped that the year and regional dummies will proxy for these changes. If changes in campaign techniques are disseminated and adopted quickly across states, the year dummies should pick up any effects that may exist. We are less concerned about identifying what changes in campaign technology may have affected campaign expenditures than we are about making sure that the changes in government expenditures may not accidentally proxy for some left out affects. Year dummies also help us to pick up any increased competition resulting from redistricting in 1982 and 1992. Because of the small number of observations, only six regional dummies are used: the west, the south, the midwest, the northeast, Alaska, and Hawaii, with the northeast being the excluded variable.¹⁷ Data for Hawaii are only available in the gubernatorial data set. Alaska and Hawaii are given their own dummy variables because of their unusually high costs and per capita incomes. Including Alaska as part of the west doubles the t-statistics for the per capita government expenditure variables and leaves the $\ln(\text{state expenditures})$ largely unchanged.¹⁸

¹⁷ The West includes Washington, Oregon, California, Arizona, Nevada, Idaho, Montana, Utah, Wyoming, Colorado, and New Mexico; the South includes Texas, Louisiana, Mississippi, Alabama, Florida, Georgia, South Carolina, North Carolina, Virginia, Tennessee, Arkansas, and Oklahoma; the Midwest includes North Dakota, South Dakota, Nebraska, Kansas, Minnesota, Iowa, Missouri, Wisconsin, Illinois, Michigan, Indiana, Ohio, Kentucky, and West Virginia; and the remaining states in the Northeast are classified under that label. Not all of these states have data when we examine legislative expenditures. Those states where data is available are still placed into the above categories.

¹⁸ Alaska makes up 13 percent of the sample for both the state House and Senate samples.

B. The Results for State Campaign Expenditures After Controlling for Other Effects

We divide up legislative expenditures between state house and senate races because there are not enough observations for us to control for all these different effects in one regression. Tables 3 and 4 present the results when the control variables described in Section III.A. are used. In all cases, the relationship between state budget expenditures and state House or Senate campaign expenditures continues to be both statistically and economically significant. For example, using specifications 1 and 3 in both tables and the standard deviations corresponding to the samples in these regressions implies that a one standard deviation change in state government spending will explain between 52 and 83 percent of a one standard deviation change in state House campaign spending and between 71 and 84 percent of a one standard deviation change in state Senate campaign spending. Combining specification 3 from both Tables 3 and 4 indicates that a \$1000 increase in per capita state government expenditures (an increase of less than a third for these observations) will increase real per capita state legislative campaign expenditures by 35 percent (or 99 cents). While other variables are at times significant, only the coefficient for state expenditures is statistically significant in all the specifications.

The only other variables that indicate a consistent, though not always statistically significant, pattern are term limits, the state's population, general election races with incumbents (particularly senate incumbents), and the percentage of seats in the general election that were won by less than 5 percent. Term limits generally imply lower campaign expenditures, the larger states tend to exhibit some diseconomies in campaigning, and the absence of incumbents in the general election or the more general election races that are decided by less than 5 percent the higher are campaign expenditures. The percentage difference in party control of the legislative bodies was consistently negative as predicted only for senate races, and even then it was statistically significant only once. Possibly because of the very few number of observations, term limits was only negative and statistically significant in only one of the specifications.

Since I had no strong prior beliefs concerning the exact functional relationship between state government expenditures and income, specifications 3 and 4 in these two tables were rerun with a new variable included for squared per capita income. The coefficients indicated that campaign expenditures increased at a decreasing rate with income, though neither of these variables were ever statistically

significant. At least for legislative races, the bottom line seems to be that it is the amount transfers controlled by the government that determines campaign expenditures and not the potential income that governments can acquire as represented by a state's personal income.

C. The Relationship Between State Government Expenditures and Gubernatorial Campaign Expenditures

The specification for gubernatorial campaign expenditures is generally very similar to the specifications for legislators. However, several relatively small differences do arise. For example, since we are dealing with only one office being contested in any state during any year we can easily measure the winning margin between the top two candidates in the general and primary elections as a continuous variable. This winning margin is measured in percentage points. Term limits are also much more common and variable for governors than legislators during our sample, thus allowing us to control for the effect of the term limit lengths. Following Crain and Tollison (1977) we assume that the longer politicians are allowed to serve as governor, the more valuable becomes the property right and hence the greater campaign expenditures. Presumably, this is true whether one is talking about the limits imposed by term limits or limits on the length of any given term. If Jung et. al. (1994) are correct, a divided legislature should reduce the returns to winning the governorship because opposing political parties can already ameliorate the more extreme wealth transfers proposed by the other party. This is controlled for by a dummy variable that equals one whenever opposing parties control the different houses. The variables that measure the margin of party control in the state houses and senates use the absolute percent differences between the parties in each body. (In all these cases Nebraska was excluded from the sample, though setting its values to zero and including it does not affect the results.)

The results shown in Table 5 are fairly similar to those already reported. State government expenditures again stands out as the most consistently significant coefficient and these coefficients are always positive and economically large. The state government expenditure coefficients imply that a one standard deviation increase in government expenditures can explain between 54 and 69 percent of a one standard deviation change in state gubernatorial campaign spending. Using specifications 3 and 4,

thousand dollar increase in per capita state government expenditures implies about a 60 percent increase in total gubernatorial campaign expenditures.

Other results also tend to be more consistently significant in the smaller data sets that we used for legislative offices. The most consistent results indicate that campaign expenditures are highest when no incumbent is running and the winning margin between the top two general or primary election candidates is small. Term limits again decrease campaign expenditures, and the effect can be quite large: increasing a governor's maximum tenure from 8 years to 16 can increase the average campaign expenditures by as much as 31 percent. However, the results also present something of a puzzle. Increasing term lengths has the surprising effect of lowering campaign contributions, and this effect can also be quite large, though it is statistically significant in only two specifications. Using specifications 3 and 4, increasing terms lengths from 2 to 4 years, reduces expenditures by more than an increase in term limits from 8 to 16 years. The results continue to indicate that per capita income is not particularly important in explaining campaign expenditures.

D. The Question of Causality

Do higher government expenditures increase the returns to higher campaign expenditures or are the regressions capturing the reverse relationship? Higher government spending could be the result of higher campaign expenditures, as winning candidates may provide greater transfers to those groups that gave them money. Alternatively, however, winning candidates may reduce existing negative transfers from their supporters. It is not obvious whether higher campaign expenditures will generally be followed by either greater or lower transfers.

Yet, even if higher past campaign contributions do increase future government expenditures, some evidence already exists on the timing of campaign expenditures and changes in legislative outcomes. Bronars and Lott (1993) show that while campaign contributions do not alter how individual politicians vote, donors give money to politicians who agree with the donors.¹⁹ Other evidence also indicates that

¹⁹ By combining the campaign contributions literature with the evidence that politicians intrinsically value policy outcomes, Bronars and Lott (1993) tests whether politicians' voting patterns change when they retire and no longer face the threat of lost campaign contributions. If contributions are causing individual politicians to vote differently, there should be systematic changes in voting behavior when future contributions are eliminated. On the other hand, if voters give to candidates who intrinsically value the same policies that they do, there should be no last period changes in how a politician votes. The evidence strongly confirms this second hypothesis.

individual politicians exhibit extremely stable voting patterns over time (Lott and Davis, 1992; Poole and Romer, 1993; and Lott and Bronars, 1993). There appears to be little possibility of contributions bribing existing politicians into voting differently. Instead, the way to produce new government policies is to alter the legislature's composition and larger campaign expenditures can help do this. Any reward to donors from electing a different type of politician does not occur until after the election, and should not be a major problem here as we use contemporaneous campaign and budget expenditure data for our regressions. Thus, if a group spends a lot of money to elect a big-spending politician, government spending today is not affected, and cannot produce a false positive relationship between the contemporaneous values for campaign and budget expenditures.

However, it might be claimed that campaign expenditures in a given year are not truly determined anew every year, but depends on its own past levels,²⁰ and that its own past levels also affect the current level of government spending, so that a spurious relationship might arise simply by looking at contemporaneous values of campaign and budget expenditures. Past campaign expenditures could then be viewed as a third variable influencing campaign spending and current government expenditures. A simple way to account for such a possibility is to include past campaign expenditures as an explanatory variable. Thus, we reran the second and fourth specifications in Tables 3, 4, and 5 by including a variable for the preceding election's campaign expenditures.

The results reported in Table 6 consistently support the earlier findings that higher government spending produce significantly higher campaign expenditures, and the sizes of these coefficients are between 78 and 104 percent of their corresponding values in the earlier reported specifications. Though the coefficients for lagged campaign expenditures are always positive, they are statistically significant in only four of the six specifications. The other coefficients are generally similar, though less significant, than those shown in earlier specifications. For example, the gubernatorial evidence on shorter length term limits reducing campaign expenditures is similar to the evidence reported in Table 5, and the legislative evidence that term limits reduce expenditures remains extremely weak.

²⁰ There is some evidence that an individual's past campaign expenditures affects his level of current campaign expenditures (Lott, 1987a). There is also the possibility that there are other unmeasured factors that determine a state's legislative or gubernatorial campaign expenditures over time and that a state's campaign expenditures are correlated over time because of these factors.

To deal with the question of whether lagged campaign expenditures increase or decrease current government expenditures, government expenditures were also run on both lagged campaign expenditures and government expenditures. Lagged government expenditures are included because of the large literature that indicates that current government expenditures are not determined independently of past expenditures (e.g., Bennett and Johnson, 1980 and Higgs, 1987). Many have even argued that past government expenditures generate support for future transfers (e.g., Lott, 1990). Again, both the per capita and natural logged values of government expenditures and campaign expenditures are examined, though this time we only control for the most obvious explanatory variables for government growth: per capita income, population, those two variables squared, and year and regional dummy variables. Using the other control variables employed in Table 6 or the squared values of income and population tends to make the coefficients reported for lagged campaign expenditures slightly more negative.

These new results are reported in Table 7 indicate that past campaign expenditures significantly decrease current government expenditures as frequently as they increase them and there is no consistent pattern across types of office. In addition, even though the effect of past campaign expenditures on government spending is statistically significant for the state House regressions, the effect is quite small economically. Specification 4 implies that a one standard deviation change in campaign expenditures explains less than a half of one percent of a standard deviation change in per capita state government expenditures, while specification 1's negative coefficient implies that lagged campaign expenditures explains less than 10 percent. The evidence indicates that while some of the previous specifications are consistent with past contributions increasing government expenditures, this reverse causality is certainly not prevalent enough to explain the results in all the previous regressions linking increased government and campaign expenditures.

The regression results from Tables 6 and 7 thus help confirm our hypothesis that higher government spending directly increases campaign expenditures and provides evidence that the earlier regressions were not simply picking up the reverse relationship. Even if the causality runs from to it cannot explain all the results.

VI. Is it the Composition of Expenditures or Revenues that Matters?

If it is the size of government that determines how much effort is spent competing for political office, do certain types of expenditures draw more intense competition than others? One might presume that at the margin politicians have allocated resources so that the marginal intensity of feelings are equalized (a la Becker, 1976 and Peltzman, 1976). For instance, increasing educational expenditures by \$10 per capita should not generate a more intense response in terms of campaign expenditures than would the same increase in highway construction. Yet, this empirical result might not hold even if politicians do equate intensity of feelings, since support and opposition can take many forms besides campaign contributions. In addition, there may be other ways of attempting to organize support or mitigate the opposition besides using campaign expenditures. If one believes that politicians are equating marginal support and opposition across all these margins, the way to interpret any significant differences in results when the composition of state government expenditures are broken down is as a proxy for these left out measures of cost. The problem is further complicated because some large areas of the state budgets are more heavily subsidized through Federal transfers.

To examine this question, we broke down state government expenditures into its four largest categories: education, highways, welfare, and health. Likewise, revenues were broken down into individual income taxes, corporate income taxes, sales taxes, and property taxes. All the data were collected from the Statistical Abstract of the United States.

Using the specifications shown in Tables 3, 4, and 5, twelve regressions were run replacing either the natural log of state expenditures or the per capita state expenditures with their analogous versions of these four different components of expenditures and eight more regressions were run replacing these measures of total state expenditures. The specifications using the composition of expenditures are reported in Tables 8, 9, and 10. The specifications using different sources of tax revenue are not reported since virtually all these coefficients had very low t-statistics.

Tables 8 and 10 show that larger educational expenditures are most consistently associated with higher campaign expenditures in state House and gubernatorial races, while all three tables usually indicate that higher highway increase all three kinds of state campaign expenditures. Table 9 provides evidence that higher health care expenditures increase state senate campaign expenditures. Some of the

effects are quite large economically. Specifications 1 and 3 in Table 8 implies that a one standard deviation increase in per capita educational expenditures can explain between 45 and 68 percent of a one standard deviation change in state House campaign spending. The analogous numbers for highway expenditures are much more variable, ranging from 5 to 72 percent. It is puzzling why educational expenditures seem to be so important in explaining state House and gubernatorial campaign expenditures and tend to have the opposite (though insignificant) effect on state senate expenditures.²¹

These regressions might have been easier to decipher if they had used data that predated the Supreme Court's 1964 decision striking down state rules that apportioned state House seats on the basis of population and State Senate seats on the basis of geography, often giving disproportionate electoral weight to more rural areas of a state which might attach a greater weight to easy access to highways. Yet, the bottom line seems to be that the total level of expenditures are more consistently important in determining campaign expenditures than are any particular components of those expenditures or sources of those revenues.

VII. Does the Competition for Increased Government Expenditures also Take the form of Increasing the Number of Candidates who Run for Office?

Competition for resources can take many dimensions. While interest groups are willing to spend more money to elect their representatives as winning office becomes more valuable, they may also compete by having more politicians run for office. As government becomes larger, the attractiveness of becoming a politician should increase. Using the variables we have already employed to explain campaign expenditures, we can also attempt to explain the number of candidates: does the number of legislative or gubernatorial candidates increases with state government expenditures? The regressions shown in Table 10 for the state Houses, Senates, and Governorships attempt to control for: whether incumbents are running in either the primary or general elections, term limits, a state's population and per capita income, and the likelihood that the election will alter which party will control the balance of power in their legislature or the state. The explanations for including these variables are similar to those described earlier, with two exceptions: population and income. These are in part included so as to

²¹ For a paper that attests to the strength of political influences in determining the level of educational expenditures see Peltzman (1993) and Friedman (1993).

provide continuity with the preceding regressions, but, in addition, for a given number of seats a greater population may provide a larger pool of potential candidates and if political participation is a normal good, higher incomes could result in more candidates running for office.

For the legislative races, we also control for the number of seats that are up for election in each state. By contrast, since there is only one gubernatorial election in any year, the intercept in the gubernatorial regression is picking up this effect. We also reran the legislative regressions by respecifying the endogenous variables as the number of candidates divided by the number of seats up for election, though none of the reported results were appreciably altered by this respecification.²²

The results in Table 11 suggest that there is no systematic significant relationship between per capita state government expenditures and the total number of candidates, and even when the effect is significant for state Senate races it is relatively small: a one standard deviation change in per capita income explains only 10 percent of a one standard deviation change in the total number of candidates. Putting an additional state House or Senate seat up for election produces slightly more than two new contestants. The most consistent significant effects are whether there are incumbents running in the Republican and Democratic primaries with the legislative results implying that on average between 2 to 2.8 new candidates enter for each incumbent who decides not to run for reelection and the gubernatorial results imply that is range is between 2.3 and 2.4. The insignificant results for the effect of whether there is an incumbent in the general election may simply result from the high degree of collinearity with the other two measures of whether incumbents are running for reelection. More lopsided control of a state legislature appears to discourage entry, but the effects are insignificant.

Finally, there is one interesting result with respect to term limits. Combining Table 11's results with those reported earlier, there is some weak evidence that legislative term limits reduce campaign expenditures and increase the number of candidates running for office. However, while the evidence that term limits reduce expenditures is strongest for gubernatorial and Senate elections, the evidence that they increase the number of candidates is strongest for House elections. The negative effect of term limits on legislative campaign expenditures might prove to be more significant once term limits have been

²² Presumably, a more micro level data set that did not merely summarize the legislative elections in each state but attempted to explain the number of candidates in each race in each state might also attempt to control for the past investments in political reputation made by individual candidates.

in place longer and more data has been acquired, but the initial evidence is consistent with the notion that term limits will reduce entry barriers in political markets.

VIII. Conclusion

Over the last couple of decades, most of the increase in campaign expenditures can be explained by higher government spending. This result holds for both Federal and state legislative campaigns and gubernatorial races. The paper also finds that the level of government expenditures more consistently predict higher campaign expenditures than does either the composition of the expenditures or the percentage of government revenue derived from different revenue sources. While the competition for government transfers seems to take the form higher campaign expenditures, there is little evidence that it takes the form of increasing the number of candidates running for office.

The public policy debate presumes that all the supposed evils of campaign finance would be simply solved by putting limits on donations or on the total amount that candidates can spend. Yet, as with other types of controls, one risks merely changing the form of payments rather than really restricting the level of payments. The debate unfortunately focuses on the symptoms and not the root causes of the ever higher expenditures. This paper suggests that if one really wants to reduce the resources society spends on campaigns, the solution is to make the government smaller. The paper also provides some weak evidence that legislative term limits reduce campaign expenditures and increase the number of candidates running for office.

However, just as with the concerns that we have raised over reducing campaign expenditures through placing spending limits, there are difficulties inherent in limiting government spending. For example, preventing transfers from taking the form of budget expenditures may simply make them take other forms like regulations. There is also the concern that these new methods of transfers will involve greater deadweight losses than their previous forms (Lott, 1996).

Understanding the cause of increased campaign expenditures also puts into perspective the claim that campaign expenditures are “too large.” The real puzzle should actually be: why are campaign expenditures so small when there is so much money at stake? Why are Federal budget expenditures

2500 times larger than total Federal legislative campaign expenditures and State budget expenditures
1250 times larger than total state legislative campaign expenditures? Possibly, government expenditures
produce few rents or that the expenditures are taking many other forms. If this last point is true, the
question then becomes: why is it preferable that the rent-seeking primarily take forms other than
campaign contributions, or does it matter?

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DATA APPENDIX: LIST OF SOURCES

Gubernatorial Election Data

Total campaign expenditures (in 1992 \$) by candidates for primaries, runoffs, and general elections were obtained from The Book of the States 1994-1995 and earlier years.

Total state expenditures (in 1992 \$) were obtained from either the Statistical Abstract of the U. S. or the World Almanac and Book of Facts.

Per capita income of state residents (in 1992 \$) were obtained from various years of the Statistical Abstract of the United States.

Total state taxes (in 1992 \$) were obtained from the Statistical Abstract of the U. S.

The variable for whether there is an incumbent in the race takes the value of 1 if the incumbent entered the race and a value of 0 if the incumbent was not a candidate (Sources: 1990-1992 data taken from The Book of the States 1994-1995, p. 39; 1986-1989 data taken from The Book of the States 1990-1991, p. 52; and Congressional Quarterly's Guide to U. S. Elections, Third Edition, pp. 667-773).

The absolute margin of control in the State Senate and House of Representatives: Offices that were either vacant or occupied by an independent were not counted in either the numerator or the denominator. The source for this was the World Almanac and Book of Facts.

The dummy variable for whether the control of the state legislatures is split takes the value of 1 if there is split control of the Legislature and the Senate in a given and year. Missing values were assigned to Nebraska for all years, because it has a unicameral legislature of 49 members who are elected on a nonpartisan ballot. The source for this was the World Almanac and Book of Facts.

The length of a governor's term (in years) is obtained from The Book of the States 1978-1995, Tables entitled "The Governors."

The maximum number of consecutive years that a governor may serve were also obtained from The Book of the States 1978-1995, and from Congressional Quarterly's Guide to U. S. Elections, Third Edition, p. 635. An entry of 0 means that there is no limit. Between 1978 and 1992 six states (California, Colorado, Hawaii, New Mexico (1991), South Carolina, and Tennessee) changed their policies regarding the maximum number of consecutive years that a governor could serve. Since our election data only go through 1990 for New Mexico its change will not be observed in our sample.

A term limit dummy variable takes the value of 1 if there is a limit on the number of consecutive terms a governor may serve and takes the value of 0 if there is no such limit. Between 1978 and 1992 three states (California, Colorado, and Hawaii) introduced a term limit for governors. During this period three other states (New Mexico, South Carolina, and Tennessee) increased from one to two the number of consecutive terms that a governor could serve. This is obtained from The Book of the States 1978-1995, and from Congressional Quarterly's Guide to U. S. Elections, Third Edition, p. 635. An entry of 0 means that there is no limit.

The dummy variable for whether there is an incumbent in the general election takes on the value of 1 if there was an incumbent in the general election and a 0 if an incumbent was not in the general election. (Sources: 1990-1992 data taken from The Book of the States 1994-1995, p. 39. For 1986-1989, the data is taken from The Book of the States 1990-1991, p. 52.)

The absolute margin of victory in the general election was calculated as the difference in the percentage of votes between the top two candidates in the race. The sources for this data are The Book of the States

and The Almanac of American Politics which was used for the elections in which third party or independent candidates finished in the top two in the general election.

The number of candidates in the general election that received more than 5% of the vote was obtained from Congressional Quarterly's Guide to U. S. Elections, Third Edition, pp. 667-716. The data for Louisiana is omitted from this variable because of its open primary system.

The variables for whether there was an incumbent in the Republican or Democratic primaries, the absolute margin of victory between the top two contestants in those primaries, the number of candidates with over 5 percent of the vote in those primaries, and information on whether those primaries were uncontested were all obtained from Congressional Quarterly's Guide to U. S. Elections (third edition).

In Connecticut, party conventions nominate candidates by convention. However, if an individual receives at least 20% of the convention vote, then he is allowed to petition for a challenge primary. Only in 1986 was there a Republican challenge primary. For the other years the dummy for whether the primary was contested was set equal to 1 and the margin of victory in the primary was set equal to 100, thus interpreting the lack of a challenge to imply that the convention was uncontested.

In Delaware, party conventions nominate candidates by convention. However, if an individual receives at least 35% of the convention vote, then he is allowed to petition for a challenge primary. Challenge primaries occurred in 1980, 1984, 1988 and 1992. However, only in 1992 did someone not receive 100% of the primary votes. Therefore, the dummy for whether the primary was contested was set equal to 1 and the margin of victory in the primary was set equal to 100 for all years except 1992.

Utah had Republican and Democratic primaries in 1976, 1984 and 1992. In 1980 and 1988 it had conventions for both parties. Virginia had a Republican primary in 1989 and a Democratic primary in 1977. For all other years there were conventions. For these convention observations no values were assigned to the data. Louisiana's values were omitted for all years, because it has a non-partisan open primary that requires all candidates, regardless of party affiliation, to appear on a single ballot.

State Legislative Election Expenditures

Primary and general election information on vote margins, number of seats up for election, percent of seats with no challengers or incumbents, the total number of candidates, campaign expenditure information were obtained from the following sources. The information was collected by first writing to the state Secretary of State offices and state election commissions and then following up with telephone calls.

Alabama

Printed information for 1990 was obtained from Alabama's Secretary of State Jim Bennett's office.

Alaska

Primary Election Results

Alaska Secretary of State, State of Alaska Official Returns by Election Precinct Primary Election August 22, 1978; August 27, 1980; August 24, 1982; August 28, 1984; August 26, 1986; August 23, 1988; August 28, 1990; September 8, 1992

General Election Results

Alaska Secretary of State, State of Alaska Official Returns by Election Precinct General Election November 5, 1978; November 7, 1980; November 2, 1982; November 6, 1984; November 4, 1986; November 8, 1988; November 6, 1990; November 3, 1992.

Campaign expenditures for the annual report of the State Election Commission from 1974 to 1992. Name changed from state election to Alaska Public Offices Commission.

California

Primary Election Results

California Secretary of State, Statement of Vote and Supplement Primary Election, June 6, 1978; June 5, 1984; and June 3, 1986.
Los Angeles Times, June 8, 1978; June 5, 1980; June 9, 1982; June 10, 1982; June 9, 1988; June 7, 1990; and June 4, 1992.

General Election Results

California Secretary of State, Statement of Vote and Supplement General Election November 7, 1978
 California Secretary of State, Statement of Vote General Election November 4, 1980; November 2, 1982; November 6, 1984; November 4, 1986; November 8, 1988; November 6, 1990, General Election; and November 3, 1992, General Election

Campaign expenditures are obtained from Fay, James S., editor, California Journal (6th edition), Santa Barbara, Ca. (1994): 199.

Connecticut

Primary Election Results

State of Connecticut Office of the Secretary of State Elections Services Division, Statement of Vote, September 14, 1988; September 11, 1990; and September 15, 1992.

General Election Results

State of Connecticut Secretary of the State, Statement of Vote General Election November 8, 1988; November 6, 1990; and November 3, 1992

Campaign expenditure information is contained separately on photocopied sheets from the secretary of state's office.

Florida

Primary Election Results

Florida Department of State Division of Elections, Tabulation of Official Votes Florida Primary Elections Democratic, Republican and Nopartisan September 12, 1978 and October 5, 1978; September 9, 1980 and October 7, 1980; September 7, 1982 and October 5, 1982; September 4, 1984 and October 2, 1984; September 2, 1986 and September 30, 1986; September 6, 1988 and October 4, 1988; September 4, 1990 and October 2, 1990; and September 1, 1992 and October 1, 1992.

General Election Results

Florida Department of State Division of Elections, Tabulation of Official Votes Florida General Election: November 7, 1978; November 4, 1980; November 6, 1984; November 4, 1986; November 8, 1988; November 6, 1990; and November 3, 1992

Campaign expenditure information is contained separately on photocopied sheets from the State Division of Elections' office.

Idaho

Primary Election Results

Idaho Secretary of State, Official Vote Totals Primary Election - May 27, 1986; May 24, 1988; May 22, 1990; and the Idaho Secretary of State, Legislative District Totals 1992 Primary Election.

General Election Results

Idaho Secretary of State, Official Vote Totals/Legislative Districts General Election - November 4, 1986; also November 8, 1988; November 6, 1990; and November 3, 1992.

Campaign expenditure information is contained separately on photocopied sheets from the secretary of state's office.

Kansas

Primary and General Election Results: Kansas Secretary of State, Election Statistics State of Kansas 1982 Primary and General Elections (the analogous publications for 1984, 1986, 1988, 1990, and 1992 were also used).

Campaign expenditure information is contained separately on photocopied sheets from the secretary of state's office.

Michigan

Primary Election Results: Michigan Department of State, State of Michigan Official Canvass of Votes Primary Election August 8, 1978 Special Elections General Election November 7, 1978; August 5, 1980; August 10, 1982; August 7, 1984; August 5, 1986; August 2, 1988; August 7, 1990; and August 4, 1992.

General Election Results
Michigan Department of State, Official Canvass of Votes, General Election 1978; November 4, 1980; November 2, 1982; November 6, 1984; November 4, 1986; November 8, 1988; November 6, 1990; and November 3, 1992

Campaign expenditure information is obtained from various issues of Michigan Election Statistics.

Missouri

Primary and General Election Results
Missouri Secretary of State, Certified Totals of the Missouri Primary Election August 7, 1990; Roster 1977-1978 State, District and County Officers State of Missouri; 1979-1980 Roster State, District, County Officers State of Missouri; 1981-1982 Roster State, District, County Officers State of Missouri; 1983-1984 Roster State, District, County Officers State of Missouri; 1985-1986 Roster of State, District and County Officials--State of Missouri; Missouri Roster 1987-1988 A Directory of State, District and County Officials; Missouri Roster 1991-1992 A Directory of State, District and County Officials; 1978 Missouri Annual Campaign Finance Report (Jefferson City, 1979) similar reports for 1980, 1982, 1984, 1986, 1988, 1990, 1992.

Ohio

Primary and General Election Results and Campaign Expenditures
Ohio Secretary of State, Ohio Election Statistics for 1989-1990 and for 1991-1992.

Oregon

Summary Report of Campaign Contributions and Expenditures, Secretary of State Elections Division, 1992 General Election and Oregon Secretary of State, Oregon Election Statistics for 1972-93.

North Carolina

State of North Carolina, State Board of Elections, Abstract of Votes cast for state representatives and state senators for primary and general election races in 1990 and 1992. Also the biyearly Elections for State Senate in Multi county districts, Analysis of Campaign Contributions and Expenditures.

Washington

Primary Election Results

Washington Secretary of State, State of Washington 1978 Abstract of Votes Primary & General Election Held September 19 and November 7, analogous listing for 1980, 1982, 1984, 1986, 1988. Washington Secretary of State, State of Washington Official Returns of the State Primary Held On September 18, 1990. Washington Secretary of State, Official Returns of the Washington State Primary September 15, 1992

General Election Results

Washington Secretary of State, Official Returns of the State General Election November 3, 1992 State of Washington; Washington State Public Disclosure Commission, 1978 Election Financing Fact Book (Olympia, 1979, and related publications for 1981, 1985, 1989, 1991, 1993).

Other Data

Federal and state data on per capita income, population, state government expenditures and the breakdown of those expenditures by type were obtained from the Statistical Abstract of the United States.

Total Federal campaign expenditures for the House and Senate and the total number of candidates for those offices were obtained from press releases put out by the Federal Election Commission.

Table 1: Changes in Campaign Spending Over Time

A) Comparing the Real Per Capita Increases in Campaign Expenditures for all Candidates who Ran for a State's House or Senate (The comparisons in this table are made only for those states where data covering at least 4 election cycles are available)

State	Election Cycles Covering Years from	Percent Change in Real Per Capita Expenditures for State House and Senate Races	Comparison Over the Same Period for in Real Per Capita Increases in National Advertising in the U.S.	Comparison Over the Same Period for in Real Per Capita Increases in Federal Senate and House Races*
Alaska	1976 to 1992	29.3	84.6	137.5
California	1976 to 1992	25.2	84.6	137.5
Florida	1978 to 1992	44.5	63.4	41.5
Idaho	1976 to 1992	45.8	84.6	137.5
Kansas	1982 to 1992	26	73.2	24.4
Massachusetts	1986 to 1992	30.2	14.1	10.9
Michigan	1978 to 1992	101	63.4	41.5
Missouri	1978 to 1990	22.1	70.98	2.4
Oregon	1972 to 1992	185	...	...
for comparison purposes only	1976 to 1992	111	84.6	137.5
Washington	1978 to 1992	100	63.4	41.5
Average		54.4**	68.7	71.2
Percentage Increase Over the 1976 to 1994 Period			113.7	136

B) Real Per Capita Increases in Campaign Expenditures for all Candidates who Ran for a State's Governorship (Arkansas, New Hampshire, Rhode Island, and Vermont have observations that occur in both the first two sets of states)

States with Elections during	Percent Change in Real Per Capita Expenditures	Number of States
1) 1982, 1986, 1990	58	36
2) 1980, 1984, 1988, 1992	61.8	13 during 1980 and 1984, 12 during 1988 and 1992 (Change due to Arkansas switching to four year term)
3) 1977, 1981, 1985, 1989	137	2 (New Jersey and Virginia)
4) 1979, 1983, 1987, 1991	11	3 (Louisiana, Kentucky, and Mississippi)

* Federal campaign expenditures are not available prior to 1976.

** This average uses the 1976 to 1992 period for Oregon.

Table 2

Sample Means and Standard Deviations

(All dollar values are in real 1992 dollars. Standard deviations are in parentheses and the number of observations are listed below that.)

Variable <u>Descriptions</u>	Data Description				
	Federal Legislative Campaigns	All State Legislative Campaigns	State Senate Legislative Campaigns	State House Legislative Campaigns	Gubernatorial Campaign Expenditures
Ln (Campaign Expenditures)	20.001 (0.299) 10	15.93 (1.009) 81	14.72 (1.100) 81	15.26 (1.086) 91	15.47 (1.067) 178
Per Capita Campaign Expenditures	2.09 (0.4524) 10	2.78 (2.60) 81	0.903 (0.9896) 81	1.51 (1.566) 91	2.575 (2.509) 178
Ln (Federal Budget Expenditures)	27.785 (0.151) 10	...	...	...	...
Ln (State Budget Expenditures)	...	23.02 (0.969) 81	23.02 (0.969) 81	16.07 (0.9892) 91	22.49 (0.9506) 178
Per Capita Federal Budget Expenditures	4922 (452.8) 10	...	...	...	...
Per Capita State Budget Expenditures	...	2945 (2226) 81	2945 (2226) 81	2894.88 (2131.26) 91	2290.93 (1102.11) 178
% Difference in Representation Between Major Parties	...	...	0.253 (0.168) 81	0.265 (0.1596) 91	...
Total Number of Candidates	2014.9 (523.7) 10	275 (87.6) 61	59.45 (28.41) 61	249 (84.32) 69	4.565 (1.69) 168
Population	238,188,600 (14,153,412) 10	6,902,488 (7,595,000) 81	6,902,488 (7,595,000) 81	6,685,681 (7,355,442) 91	4,402,343 (4,858,034) 178

The Relationship Between Total Campaign Spending for State Houses and State Government Expenditures

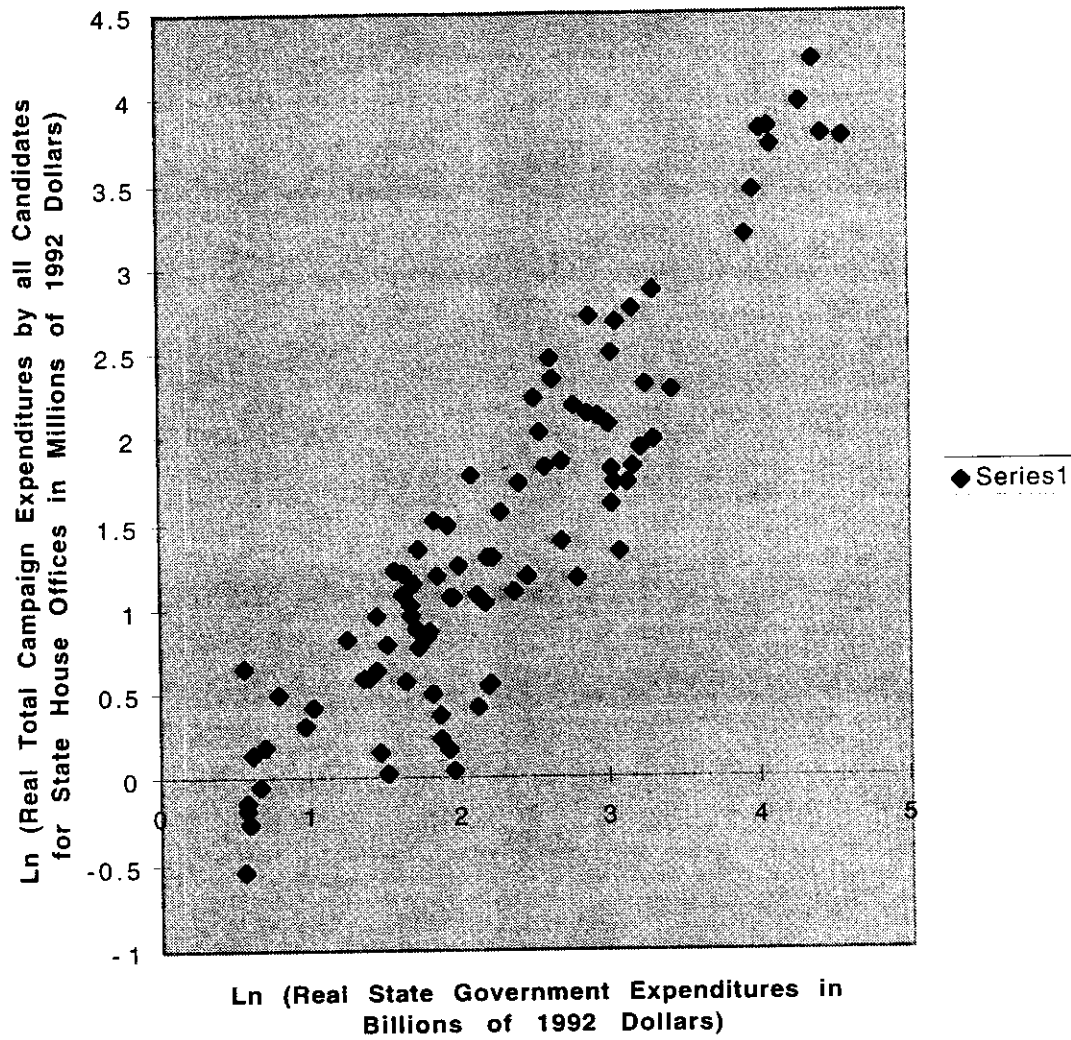


Figure 1

The Relationship Between Total Campaign Expenditures for State Senates and State Government Expenditures

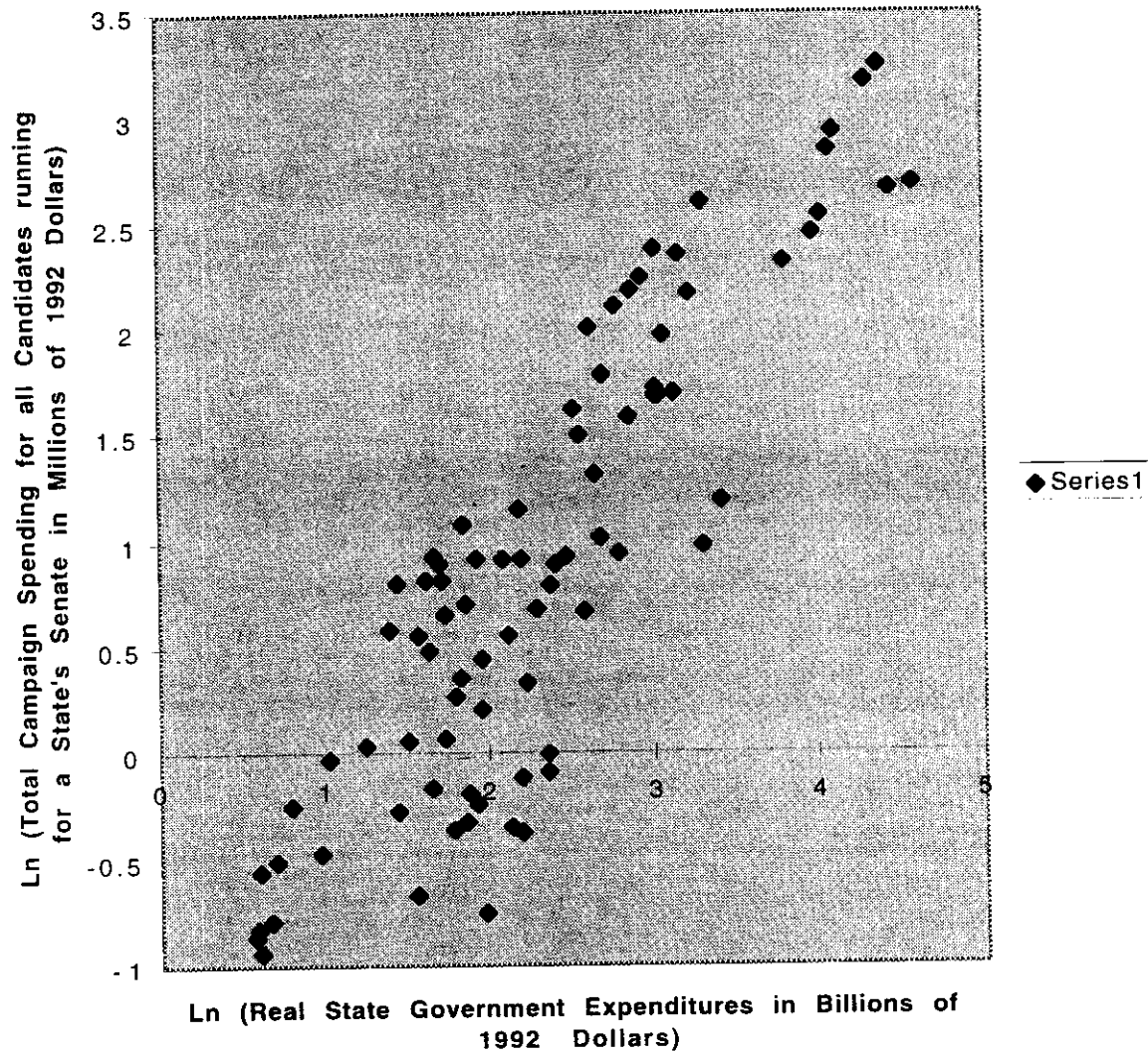


Figure 2

The Relationship Between Total Campaign Spending for Gubernatorial Races and State Government Expenditures

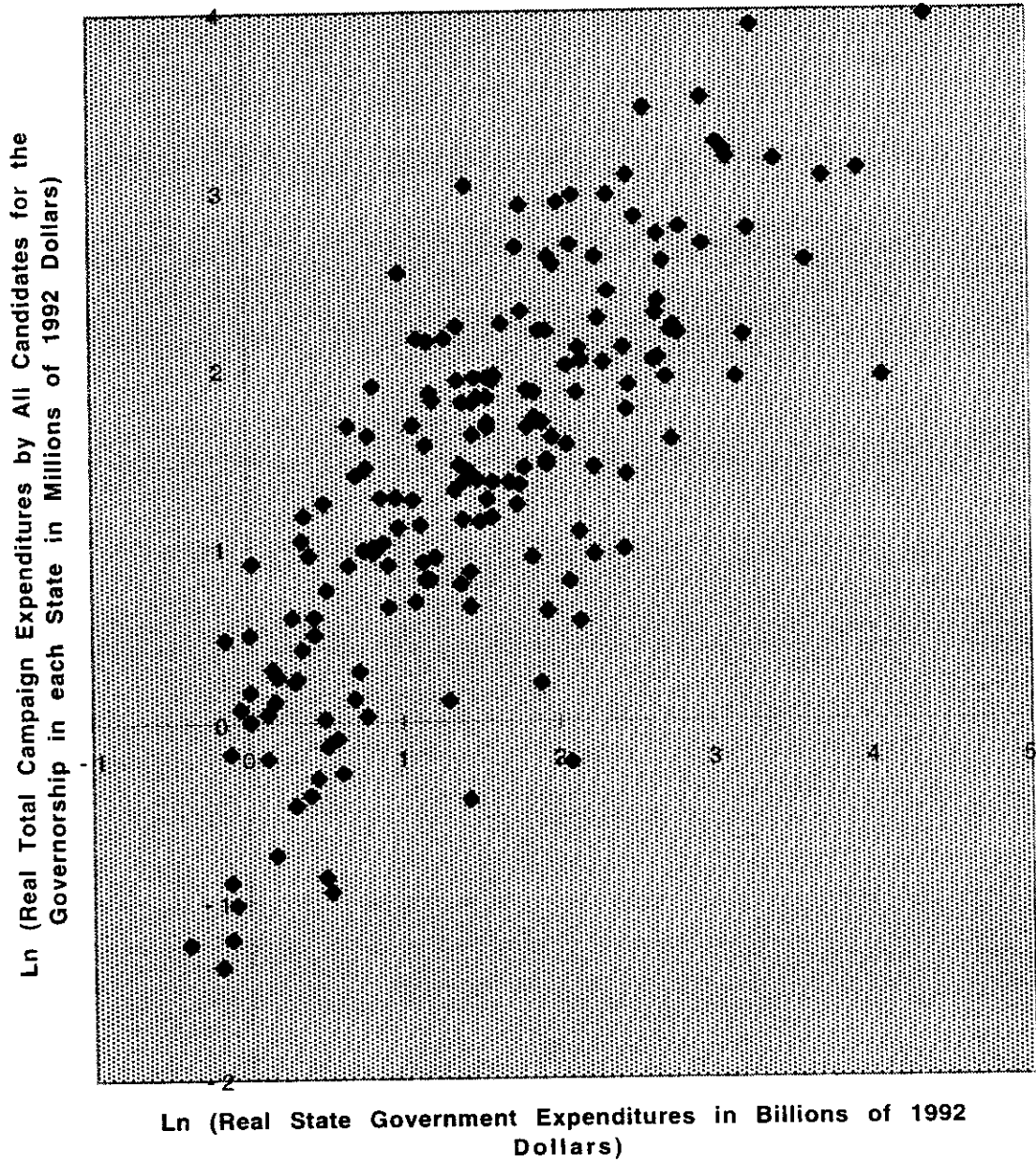


Figure 3

Table 3

Explaining Total Campaign Expenditures for State House Races
 (Absolute t-statistics are in parentheses, year and regional dummy variables are not reported)

Exogenous Variables	Dependent Variables			
	Ln (Total Campaign Spending for State House)		(Total Campaign Spending for State House)/Population	
	(1)	(2)	(3)	(4)
Ln (State Expenditures)	0.7805 (4.67)	0.6675 (5.94)	...	...
Per Capita State Expenditures	...	...	0.000619 (3.08)	0.000726 (7.39)
Per Capita Income	1.6 E-5 (0.48)	6.81 E-5 (1.94)	2.06 E-5 (0.34)	4.69 E-5 (1.03)
Term Limits	-0.1540 (1.06)	-0.1278 (0.78)	-0.3012 (1.28)	-0.3136 (1.48)
Abs % Difference in Control of State House	0.1568 (0.39)	-0.4175 (1.14)	0.1730 (0.26)	0.6283 (1.44)
Total Number of Candidates Running for the State House	...	-0.00155 (1.57)	...	-0.00198 (1.64)
Population	6.0 E-8 (3.69)	3.9 E-8 (2.93)	5.1 E-8 (3.31)	9.1 E-9 (1.06)
House General Election Variables				
Number of Seats Up for Election	-0.0027 (0.01)	...	0.00446 (0.81)	...
%Seats with No Challenger	0.1292 (0.16)	...	1.7158 (1.43)	...
%Seats with No Incumbent	-0.5306 (0.60)	...	-1.4366 (1.05)	...
%Seats with Multiple Inc.	-4.4966 (0.94)	...	-7.8326 (1.03)	...
%Seats Won by between 0 and 5%-General	5.092 (3.82)	...	4.8882 (2.28)	...
%Seats Won by between 5 and 10% -General	1.8177 (1.43)	...	3.3914 (1.69)	...
%Seats Won by between 10 and 15% -General	1.4806 (1.00)	...	3.2958 (1.38)	...
%Seats Won by between 15 and 20%-General	-0.3688 (0.29)	...	0.7441 (0.38)	...

Table 3 continued	(1)	(2)	(3)	(4)
Republican House Primary Variables				
Rep. Prim. Candidates/Seats	0.2806 (0.73)	...	-0.0246 (0.04)	...
R%Seats with NoChal	1.5323 (3.04)	...	1.8022 (2.18)	...
R%Seats with NoInc	-0.4879 (0.74)	...	-0.2855 (0.26)	...
R%Seats with MultInc	-1.5118 (0.23)	...	13.8445 (1.14)	...
R%Seats Won by between 0 and 5%-Primary	-0.0020 (0.00)	...	-2.0368 (0.55)	...
R%Seats Won by between 5 and 10% -Primary	2.9803 (1.17)	...	6.7109 (1.71)	...
R%Seats Won by between 10 and 15% -Primary	-2.4726 (0.90)	...	0.4886 (0.10)	...
R%Seats Won by between 15 and 20%-Primary	-4.2963 (1.88)	...	-0.2717 (0.07)	...
Democratic House Primary Variables				
Dem. Prim. Candidates/Seats	-0.5048 (1.32)	...	-0.5197 (0.95)	...
D%Seats with No Chal.	-1.0294 (2.06)	...	-0.4760 (0.59)	...
D%Seats with No Inc	1.3720 (1.72)	...	2.2221 (1.84)	...
D%Seats with Multiple Inc	-1.1947 (0.19)	...	-2.0802 (0.22)	...
D%Seats Won by between 0 and 5%-Primary	1.4223 (0.68)	...	-0.5382 (0.16)	...
D%Seats Won by between 5 and 10% -Primary	-3.5151 (1.35)	...	-0.6209 (0.16)	...
D%Seats Won by between 10 and 15% -Primary	1.7311 (0.66)	...	3.06 (0.74)	...
D%Seats Won by between 15 and 20%-Primary	2.9682 (1.03)	...	4.7755 (1.05)	...
Intercept	0.4952 (0.17)	2.9215 (1.54)	-5.0339 (2.31)	-2.067 (1.79)
Adj-R ² =	0.8921	0.9317	0.8847	0.9555
Root Mean Sq Error	0.1997	0.2811	0.3231	0.3624
Observations	69	69	69	69

Table 4

Explaining Total Campaign Expenditures for State Senate Races
 (Absolute t-statistics are in parentheses, year and regional dummy variables are not reported)

Exogenous Variables	Dependent Variables			
	Ln (Total Campaign Spending for State Senate)		(Total Campaign Spending for State Senate)/Population	
	(1)	(2)	(3)	(4)
Ln (State Expenditures)	0.5882 (2.71)	0.8656 (6.18)	...	...
Per Capita State Expenditures	...	...	0.000367 (3.71)	0.000304 (3.57)
Per Capita Income	4.7 E-5 (1.39)	4.36 E-5 (1.63)	2.38 E-5 (1.04)	1.1 E-5 (0.47)
Term Limits	-0.3639 (1.51)	-0.2659 (1.42)	-0.3675 (2.10)	-0.1772 (1.13)
Abs % Difference in Control of State Senate	-0.1183 (0.21)	-0.789 (2.50)	-0.5589 (1.55)	0.0102 (0.03)
Total Number of Candidates Running for the State Senate	...	0.0106 (4.92)	...	0.00343 (1.83)
Population	4.6 E-8 (1.87)	7.6 E-9 (0.48)	4.4 E-9 (0.57)	3.5 E-9 (0.60)
Senate General Election Variables				
Number of Seats Up for Election	0.01336 (1.53)	...	0.0067 (1.16)	...
%Seats with No Challenger	0.6806 (2.82)	...	0.4751 (2.76)	...
%Seats with No Incumbent	-0.4093 (0.58)	...	0.5335 (1.08)	...
%Seats with Multiple Inc.	-0.8345 (0.55)	...	-2.020 (1.79)	...
%Seats Won by between 0 and 5%-General	1.5722 (1.47)	...	0.3312 (0.42)	...
%Seats Won by between 5 and 10% -General	0.5732 (0.64)	...	0.3317 (0.52)	...
%Seats Won by between 10 and 15% -General	0.7331 (0.74)	...	1.045 (1.46)	...
%Seats Won by between 15 and 20%-General	0.6956 (0.62)	...	-1.041 (1.23)	...

Table 4 continued

	(1)	(2)	(3)	(4)
Republican Senate				
Primary Variables				
Rep. Prim. Candidates/Seats	-0.1040 (0.27)	...	-0.813 (2.99)	...
R%Seats with NoChal	-0.1660 (0.31)	...	0.3281 (0.86)	...
R%Seats with NoInc	1.1482 (1.57)	...	1.2455 (2.42)	...
R%Seats with MultInc	-7.1267 (2.34)	...	-6.5598 (3.09)	...
R%Seats Won by between 0 and 5%-Primary	1.5012 (0.73)	...	-0.6295 (0.45)	...
R%Seats Won by between 5 and 10% -Primary	0.5491 (0.28)	...	0.2066 (0.16)	...
R%Seats Won by between 10 and 15% -Primary	-0.9974 (0.61)	...	-1.6711 (1.38)	...
R%Seats Won by between 15 and 20%-Primary	0.5868 (0.23)	...	3.4809 (1.99)	...
Democratic Primary Senate Variables				
Dem. Prim. Candidates/Seats	0.555 (1.54)	...	0.5346 (2.60)	...
D%Seats with No Chal.	-0.191 (0.25)	...	0.1785 (0.44)	...
D%Seats with No Inc	1.189 (1.32)	...	1.7285 (3.52)	...
D%Seats with Multiple Inc	0.004 (0.00)	...	3.7506 (2.00)	...
D%Seats Won by between 0 and 5%-Primary	-0.311 (0.12)	...	-2.2827 (1.32)	...
D%Seats Won by between 5 and 10% -Primary	-1.711 (0.79)	...	-2.6399 (2.06)	...
D%Seats Won by between 10 and 15% -Primary	-1.405 (0.86)	...	0.1175 (0.11)	...
D%Seats Won by between 15 and 20%-Primary	0.248 (0.11)	...	-0.5374 (0.38)	...
Intercept	-3.1736 (0.68)	-7.1973 (2.31)	-3.2262 (4.33)	-0.7706 (1.58)
R ² =	0.8712	0.8941	0.8871	0.9316
Root Mean Sq Error	0.2847	0.3482	0.2016	0.2878
Observations	61	61	61	61

Table 5

Explaining Total Campaign Expenditures for Gubernatorial Races
 (Absolute t-statistics are in parentheses, year and regional dummy variables are not reported)

Exogenous Variables	Dependent Variables			
	Ln (Total Campaign Spending for Governorship)		(Total Campaign Spending for Governorship)/Population	
	(1)	(2)	(3)	(4)
Ln (State Expenditures)	0.6020 (5.418)	0.7551 (6.377)	...	...
Per Capita State Expenditures	...	...	0.00157 (5.091)	0.001463 (5.111)
Per Capita Income	0.000029 (1.214)	2.24 E-6 (0.086)	1.54 E-5 (0.242)	-0.0000157 (0.246)
No Incumbent Running	...	0.3877 (3.761)	...	0.6619 (2.545)
Maximum Number of Years Governor allowed to Serve	0.02625 (2.035)	0.0223 (1.585)	0.1027 (2.709)	0.0961 (2.653)
Length of Term	-0.01407 (0.163)	-0.0677 (0.733)	-0.4845 (2.209)	-0.4527 (2.150)
Split Control of State Legislature	0.0366 (0.286)	-0.1752 (1.269)	-0.2797 (0.773)	-0.6399 (1.842)
Abs % Difference in Control of State Senate	0.6580 (2.601)	...	1.1859 (1.660)	...
Abs % Difference in Control of State House	-0.2878 (1.100)	...	-0.8142 (1.123)	...
Total Number of Major Party Candidates Running for the Governorship	...	0.1260 (3.664)	...	0.2371 (2.746)
Population	3.04 E-8 (1.681)	1.43 E-8 (0.722)	-4.20 E-8 (1.447)	-3.79 E-8 (1.345)
General Election Variables				
Incumbent in General Election	0.2360 (0.752)	...	-0.0678 (0.076)	...
Winning Margin in General Election Between Top Two Candidates	-0.0168 (4.664)	...	-0.0223 (2.202)	...
Number of Candidates with more than 5 percent of Vote	0.0058 (0.041)	...	0.0992 (0.249)	...

Table 5 continued

	(1)	(2)	(3)	(4)
Republican House Primary Variables				
Republican Incumbent	-0.3238 (0.979)	...	-0.2561 (0.273)	...
No Challenger	0.0004 (0.003)	...	-0.0459 (0.111)	...
Winning Margin in General Election Between Top Two Candidates	-0.0046 (2.250)	...	-0.0067 (1.150)	...
Number of Candidates with more than 5 percent of Vote	-0.0582 (0.937)	...	-0.1510 (0.853)	...
Democratic House Primary Variables				
Democratic Incumbent	-0.4797 (1.598)	...	-0.3414 (0.402)	...
No Challenger	0.2483 (1.484)	...	0.6483 (1.343)	...
Winning Margin in General Election Between Top Two Candidates	-0.005 (2.230)	...	-0.0079 (1.249)	...
Number of Candidates with more than 5 percent of Vote	0.0967 (1.467)	...	0.3725 (2.002)	...
Intercept	1.5479 (0.676)	-2.4545 (1.025)	-0.6881 (0.342)	-1.4676 (0.897)
Adj-R ² =	0.7837	0.7114	0.6877	0.6668
Root Mean Sq Error	0.4984	0.5757	1.4066	1.4527
Observations	164	164	164	164

Table 6: To What Extent are Government Expenditures Proxying for Past Campaign Expenditures? (Absolute t-statistics are in parentheses, year and regional dummy variables are not reported)

Exogenous Variables	Dependent Variables					
	Ln (Total Campaign Spending) for			(Total Campaign Spending)/Population for		
	House	Senate	Governorship	House	Senate	Governorship
	(1)	(2)	(3)	(4)	(5)	(6)
Ln (State Expenditures)	0.5530 (2.852)	0.6737 (3.750)	0.7870 (7.357)	...	...	...
Lagged Ln(Campaign Expenditures)	0.6795 (4.827)	0.4696 (3.588)	0.4225 (6.782)	...	...	...
Per Capita State Expenditures	...	...	...	0.00068 (5.465)	0.00026 (1.962)	0.001296 (7.897)
Lagged Per Capita Campaign Expenditures	...	...	...	0.0650 (1.530)	0.2036 (1.378)	0.31497 (4.956)
Per Capita Income	5.4 E-5 (1.451)	2.06 E-6 (0.066)	-3.7 E-5 (1.571)	9.2 E-5 (1.580)	-3.42 E-6 (0.246)	-1.03 E-4 (1.877)
No Incumbent Running	...	...	0.0373 (0.326)	...	...	0.1697 (0.646)
Term Limits	-0.0752 (0.486)	-0.3527 (1.750)	...	-0.2524 (1.041)	-0.3277 (1.542)	...
Maximum Number of Years Governor allowed to Serve	...	...	0.0247 (1.872)	...	...	0.0779 (2.335)
Length of Term	...	...	-0.1463 (1.667)	...	...	-0.6554 (3.470)
Abs % Difference in Control of State House	0.0561 (0.166)	...	...	0.7169 (1.559)	...	...
Abs % Difference in Control of State Senate	...	-0.0788 (0.186)	...	...	-0.2521 (0.572)	...
Split Control of State Legislature	...	...	-0.1772 (1.460)	...	...	-0.3497 (1.127)
Total Number of Major Party Candidates Running	0.0005 (0.459)	0.0054 (2.027)	0.09246 (2.749)	-0.00286 (1.952)	0.0017 (0.685)	0.3130 (3.792)
Population	-2.83 E-10 (0.019)	1.65 E-8 (1.131)	1.81 E-8 (1.051)	-4.37 E-9 (1.447)	2.36 E-10 (0.030)	-2.19 E-8 (0.893)
Intercept	-1.0831 (0.569)	-2.4545 (1.025)	-1.5286 (0.688)	-3.0850 (2.087)	-1.282 (0.162)	1.381 (0.754)
Adj-R ² =	0.9539	0.9309	0.8319	0.9578	0.9320	0.7599
Root Mean Sq Error	0.2380	0.2928	0.4362	0.3668	0.2991	1.0726
Observations	61	53	118	61	53	118

Table 7: Do Lagged Campaign Expenditures Explain Higher Government Expenditures?
(Absolute t-statistics are in parentheses, year and regional dummy variables are not reported)

Exogenous Variables	Dependent Variables					
	<u>Ln (Total Government Spending)</u> <u>using campaign expenditure data for</u>			<u>(Total Government Spending)/Population for</u> <u>using campaign expenditure data for</u>		
	<u>House</u>	<u>Senate</u>	<u>Governorship</u>	<u>House</u>	<u>Senate</u>	<u>Governorship</u>
	(1)	(2)	(3)	(4)	(5)	(6)
Lagged Ln (State Expenditures)	0.9300 (21.94)	0.8688 (15.92)	0.9831 (50.353)	...	...	...
Lagged Ln(Campaign Expenditures)	-0.0877 (20.32)	0.5291 (2.16)	0.0023 (0.223)	...	...	...
Lagged Per Capita State Expenditures	...	...	...	0.5066 (9.58)	0.5577 (6.18)	0.8636 (29.208)
Lagged Per Capita Campaign Expenditures	...	...	...	0.2052 (3.39)	-237.58 (1.76)	-13.44 (1.160)
Per Capita Income	5.4 E-5 (4.21)	1.70 E-4 (1.83)	1.32 E-5 (2.948)	0.1339 (4.23)	0.12998 (4.89)	0.0155 (1.605)
Population	1.2 E-8 (2.53)	-5.7 E-8 (1.83)	2.49 E-9 (0.707)	-1.5 E-5 (2.08)	-1.2 E-5 (1.94)	-3.24 E-6 (0.754)
Intercept	1.2351 (2.08)	-8.1352 (2.36)	0.2833 (0.649)	-1361.69 (1.70)	-1137.46 (1.85)	68.3759 (0.293)
Adj-R2 =	0.9810	0.9358	0.9907	0.9687	0.9696	0.9604
Observations =	75	64	128	75	64	128

Table 8: Explaining Total Campaign Expenditures by Type of State Spending: Expenditures for All Candidates Running for the State Houses

(Absolute t-statistics are in parentheses. Year and regional dummy variables are not reported. Specifications 1 and 3 do not show the coefficients for the vector of variables that control for the number of candidates and the closeness of races in the general and primary elections. This is the same set of control variables used in specifications 1 and 3 in Table 3. Specifications 2 and 4 use the same set of control variables that were employed in specifications 2 and 4 in Table 3. Again the results for these other variables are not reported.)

Exogenous Variables	Dependent Variables			
	Ln (Total Campaign Spending for State House) (1)	(2)	(Total Campaign Spending for State House)/Population (3)	(4)
Ln (State Education Expenditures)	0.7155 (2.16)	0.4754 (2.11)	...	...
Ln (State Highway Expenditures)	0.0758 (0.18)	-0.4285 (1.56)	...	...
Ln (State Welfare Expenditures)	-0.1649 (0.73)	0.2625 (1.52)	...	...
Ln (State Health Expenditures)	-0.0027 (0.02)	0.1375 (1.42)	...	...
Per Capita State Education Expenditures	...	...	0.0014 (1.96)	0.0013 (2.91)
Per Capita State Highway Expenditures	...	...	0.00488 (3.12)	0.0033 (3.74)
Per Capita State Welfare Expenditures	...	...	-0.0023 (1.08)	-0.00011 (0.13)
Per Capita State Health Expenditures	...	...	0.0000134 (0.04)	0.00028 (1.14)
Intercept	-0.4209 (0.08)	4.070 (1.23)	-6.9511 (2.10)	-2.3179 (1.29)
Adj-R ² =	0.8823	0.8117	0.8289	0.8128
Root Mean Sq Error	0.2270	0.2757	0.4733	0.5196
Observations	69	69	69	69

Table 9: Explaining Total Campaign Expenditures by Type of State Spending: Expenditures for All Candidates Running for the State Senates

(Absolute t-statistics are in parentheses. Year and regional dummy variables are not reported. Specifications 1 and 3 do not show the coefficients for the vector of variables that control for the number of candidates and the closeness of races in the general and primary elections. This is the same set of control variables used in specifications 1 and 3 in Table 4. Specifications 2 and 4 use the same set of control variables that were employed in specifications 2 and 4 in Table 4. Again the results for these other variables are not reported.)

Exogenous Variables	Dependent Variables			
	Ln (Total Campaign Spending for State House) (1)	Ln (Total Campaign Spending for State House) (2)	(Total Campaign Spending for State House)/Population (3)	(Total Campaign Spending for State House)/Population (4)
Ln (State Education Expenditures)	-0.2076 (0.49)	-0.4309 (1.32)	...	...
Ln (State Highway Expenditures)	0.8878 (1.67)	1.1276 (2.75)	...	...
Ln (State Welfare Expenditures)	-0.1202 (0.39)	0.0322 (0.13)	...	...
Ln (State Health Expenditures)	0.2419 (1.69)	0.2316 (1.83)	...	...
Per Capita State Education Expenditures	...	...	-0.0001 (0.30)	-1.01 E-4 (0.43)
Per Capita State Highway Expenditures	...	...	0.00452 (4.19)	0.003597 (4.85)
Per Capita State Welfare Expenditures	...	...	0.00114 (1.93)	0.00123 (2.44)
Per Capita State Health Expenditures	...	...	0.00028 (1.98)	0.00021 (1.57)
Intercept	5.9357 (2.90)	5.7448 (3.76)	-1.8378 (2.00)	-1.5272 (3.31)
Adj-R ² =	0.8660	0.8142	0.8767	0.8426
Root Mean Sq Error	0.2946	0.3519	0.2254	0.2864
Observations	61	61	61	61

Table 10: Explaining Total Campaign Expenditures by Type of State Spending: Expenditures for All Candidates Running for the Governorships

(Absolute t-statistics are in parentheses. Year and regional dummy variables are not reported. Specifications 1 and 3 do not show the coefficients for the vector of variables that control for the number of candidates and the closeness of races in the general and primary elections. This is the same set of control variables used in specifications 1 and 3 in Table 5. Specifications 2 and 4 use the same set of control variables that were employed in specifications 2 and 4 in Table 5. Again the results for these other variables are not reported.)

Exogenous Variables	Dependent Variables			
	Ln (Total Campaign Spending for State House) (1)	(2)	(Total Campaign Spending for State House)/Population (3)	(4)
Ln (State Education Expenditures)	0.5126 (3.89)	0.5812 (4.67)	...	...
Ln (State Highway Expenditures)	0.2343 (1.97)	0.2851 (2.75)	...	...
Ln (State Welfare Expenditures)	-0.0032 (0.39)	-0.0422 (0.53)	...	...
Ln (State Health Expenditures)	0.0072 (0.55)	0.0060 (0.48)	...	...
Per Capita State Education Expenditures	...	...	0.0014 (4.493)	0.00143 (4.52)
Per Capita State Highway Expenditures	...	...	0.00083 (2.66)	0.00089 (2.85)
Per Capita State Welfare Expenditures	...	...	-0.00014 (0.45)	-0.00023 (0.74)
Per Capita State Health Expenditures	...	...	0.00028 (0.90)	0.00021 (0.67)
Intercept	3.9357 (2.88)	3.7448 (2.76)	-1.4378 (1.00)	-1.0272 (0.91)
Adj-R ² =	0.7915	0.7242	0.7767	0.7026
Root Mean Sq Error	0.4946	0.5519	1.2254	1.2864
Observations	164	164	164	164

Table 11
Explaining The Total Number of Candidates Running for State House, State Senate, and
Gubernatorial Offices (Dependant variable is the total number of candidates by type of election.
 Absolute t-statistics are in parentheses, year and regional dummy variables are not reported)

Exogenous Variables	State Senate	State House	Governorships
Per Capita State Expenditures	0.0091 (3.16)	0.0123 (1.39)	-0.00018 (0.641)
Per Capita Income	-0.00129 (1.52)	-0.0051 (1.20)	4.9 E-5 (0.786)
Number of Seats Up for Election	2.266 (12.17)	2.034 (5.83)	...
%Seats with No Incumbent Running in General	-8.1852 (0.51)	60.88 (0.95)	...
%Seats with No Incumbent Running in Rep. Primary	49.21 (3.89)	135.02 (2.94)	...
%Seats with No Incumbent Running in Dem. Primary	60.56 (5.40)	115.93 (1.91)	...
No Incumbent Running in General	...	...	-0.7466 (0.873)
No Incumbent Running in Republican Primary	...	...	1.3451 (1.534)
No Incumbent Running in Democratic Primary	...	...	1.4268 (1.718)
Term Limits	4.26 (1.71)	42.20 (2.29)	0.4092 (0.934)
Abs % Difference in Control of State Senate	-0.1180 (0.01)	...	...
Abs % Difference in Control of State House	...	-69.66 (1.58)	...
Split Control of State Legislature	...	...	-0.1312 (0.377)
Population	5 E-7 (2.12)	2.2 E-6 (2.60)	2.66 E-8 (1.017)
Intercept	-58.947 (3.11)	-49.59 (0.47)	5.9755 (4.142)
Adj-R ² =	0.8118	0.7972	0.2962
Root Mean Sq Error	10.031	10.9760	1.4257
Observations	61	69	164