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Taxing, Spending, and Voting: Voter Turnout Rates in Statewide Elections in Comparative Perspective

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Political scientists have long been interested in explaining why people do or do not vote. Although much of the attention to voter turnout thus far in the U.S. literature has been focused on federal elections for the presidency or U.S. House elections, there is a growing trend toward examining voter turnout at the subnational level. Within the arena of state politics, election studies have highlighted the influence of state context on political behavior, suggesting that varying rates of voter turnout across the states may be explained by differences in states' institutional and environmental attributes (Hajnal and Lewis 2003; Mitchell and Wlezien 1995; Tolbert and Smith 2005).

Although voter turnout in U.S. state elections is a subject that has come to the fore over the past decade, little attention has been paid to the factors that account for differences in voter turnout rates across the states as a function of the importance of an election itself. Rather than placing emphasis on individual-level predictors of turnout as has been done in the past, this study advances a rationale for voter turnout by framing the decision to vote in the context of the relative importance of state elections (Bauer 1990; Leighley and Nagler 1992).

Taken into consideration here is the interplay between the nature of states' fiscal policies and the political stakes connected with an election. Specifically, it is posited that states that spend more on valued public programs and services like education, hospitals, roads, or libraries or those that impose heavier tax burdens (costs) on citizens have greater electoral stakes, and people are more likely to vote in these elections.

Conceptualizing Second-Order Elections

The central argument of this research stems from European comparative studies of the notion of second-order elections, which frames the decision to turn out and vote in terms of whether or not voters see something major at stake in an election for an office or government (Marsh 1998; Reif and Schmitt 1980). Reif and Schmitt (1980) originated the term second-order elections to describe elections for local government bodies that are generally less salient among the public and in which "there is less at stake compared to first-order elections" (Reif 1985, 8). By contrast, first-order elections pertain to national public office and are most notable in the eyes of political parties and political elites. The

extent to which the main actors in the political process—voters, political parties, interest groups, and the media—perceive that less is at stake in second-order elections may serve to reduce the expected benefits and increase the expected costs of voting (Marsh 1998, 593). The key assumption as applied to European local and European Parliament elections is that turnout rates should be lower when candidates perceive less electoral risk (Marsh 1998; Reif and Schmitt 1980).

Existing tests of a second-order effect often rely on comparisons between national (general) elections and either local elections or elections to the European Parliament (Marsh 1998). Results consistently show significant differences in turnout between elections for local governments and national ones, with these differences attributed to a second-order effect (Marsh 1998; Reif and Schmitt 1980). Similar relationships are found in the U.S. case. In a study of turnout in municipal elections, Hajnal and Lewis (2003) highlighted the relatively low rates of turnout in state and local elections compared with those at the national level. Thus, as less salient subnational elections, U.S. state elections can be considered second-order elections.

Extending the second-order elections idea to explain differential rates of turnout in U.S. state elections requires testing a key assumption: namely, that among second-order elections, some are more important to voters than others. Even among second-order elections, there should be significant variation in turnout driven by differences in the political consequences associated with them. As is argued here, variation in electoral stakes across the states is likely a function of the nature of state fiscal policies.

Overall, U.S. state elections provide an ideal setting in which to test this argument because of the variation in the role of state government and the extent of its activity across the United States. By applying the idea of second-order elections to the states, it is possible to postulate a new explanation for turnout and better understand the nature of second-order elections more generally. As will be shown, evidence from U.S. statewide elections between 1990 and 2000 is consistent with the hypothesis that the characteristics of state fiscal policies influence the stakes connected with state elections, producing significant variation in voter turnout rates.

Second-Order Elections and Voter Turnout

The literature on second-order elections makes little attempt to expound any complete model of the individual motivations that underlie the second-order effect. For the purposes of this study, then, second-order elections are cast as the b term in the standard Riker-Downs framework (Downs 1957), where $b = p$ (benefits of voting) − costs of voting.[1] The supposition is that citizens receive greater benefits from voting in elections that have greater importance or higher electoral stakes. The b term can include added benefits voters receive from choosing a national government or the policy distance between the candidates (Reif 1985). However, an important component too can be how much government does, or the impact that government has on peoples' lives.

In the comparative European context, it is harder to advance this argument to explain variation in voter turnout across local elections because local authorities in many countries tend to have similar functions. County governments in the United Kingdom, for example, are not readily distinguishable by function; they all more or less use the same kind of revenue base to fund the same kinds of services (Wilson and Game 2002).

In the United States, however, disparities are found in the kinds of policies and programs pursued across the states: some states spend more on public programs and other public benefits than do others (Dye 1966; Erikson, Wright, and McIver 1993). Thus, state governments are the ideal institutional venue in which to test the argument that the nature of state fiscal policies produces varia-

tion in voter turnout rates by affecting the political stakes connected with states' respective elections. Specifically, as state expenditures on public programs and services like education, health care, highways, or police protection increase, the benefits of government outputs might become more apparent—and so too are citizens more likely to view state governments and the fiscal policies they formulate as important.

States also differ with respect to tax policy. Some states have no income taxes, others have limited property taxes, and still others rely heavily on tax revenue from extractive industries. These differences produce variation in states' tax burdens, or the average amount each citizen pays in taxes to state government each year. As tax burdens increase, greater costs are imposed on citizens. When costs are higher as a result of state tax policies, citizens are more likely to take an active position with regard to fiscal matters.

Taking into consideration the nature of states' fiscal policies as they pertain to the second-order elections argument, the central thesis is that the electoral stakes become greater in states in which state government either spends or taxes more, and people are more likely to vote in these elections. As a result, second-order elections have varying degrees of importance.

There are a couple reasons why voter turnout may be higher in states that have aggressive fiscal policies. One possibility is that voters are cognizant of their states' relative levels of taxing and spending and conduct a simple cost-benefit calculation in deciding whether to vote. The assumption is that voters would be more motivated to vote in states in which there are higher levels of taxing and spending. However, given that survey research indicates that many citizens have little knowledge about the decision-making processes of government, this type of calculation may be made only in high-profile circumstances, such as when a public program is under threat of elimination or when a major tax increase is proposed (Delli Carpini and Keeter 1996).

A more plausible scenario is that greater levels of taxing and spending at the state level increase the electoral stakes connected with statewide elections with the effect of causing political parties, candidates, and interest groups to expend greater effort and resources trying to mobilize voters to go to the polls. Elite political actors pay closer attention to state fiscal decision-making processes and have greater levels of knowledge about the relative fiscal capacities of states. In short, the turnout effect might be mediated by the behavior of elites who are better equipped to assess the stakes associated with a particular election (Zaller 1992). The significance of this research, however, does not depend on which of these two nonmutually exclusive mechanisms (direct voter response versus mediated voter response) is correct (for a further discussion of this debate see Franklin, van der Eijk, and Oppenhuis 1996). Rather, the goal here is to show a causal relationship between the nature of state fiscal policies and turnout while leaving the specific set of forces that influence how the interaction develops to future research.

Demonstrating a Second-Order Effect in U.S. State Elections

To demonstrate empirical support for the arguments pertaining to the second-order elections idea, it is important to show (1) significant variation in voter turnout among the states when the electoral stakes differ across state taxing and spending dimensions and, conversely, (2) *no* significant variation in turnout among the states when the electoral stakes *do not* differ across state taxing and spending dimensions. That is, a critical part of the empirical argument is to show that the relationship between state taxing and spending only exists in those elections in which there is actually variation in the electoral stakes driven by state fiscal policies.

The question then is, which statewide elections should be included in the analysis to best illustrate a second-order effect in U.S. state

elections? The research design used here to examine voter turnout comprises two different election groups categorized by the presence or absence of gubernatorial elections. Specifically, the first group includes election years when gubernatorial elections were present on the ballots of the states in the sample. The other group includes election years when gubernatorial elections were absent.

Because governors are the most salient statewide elected officials with power over state fiscal policies (Gosling 1994), a research design that considers gubernatorial/nongubernatorial election years is appropriate for empirically showing that the nature of state fiscal policies has consequences for statewide elections and voter turnout rates. If the argument presented here is correct, there should be a pronounced relationship between state taxing and spending measures and voter turnout depending on the significance of an election. It follows that the more a state taxes and spends, the greater the effect (positive or negative) and importance of state government on citizens' lives. Because a gubernatorial election provides an opportunity for citizens to choose the top elected official with fiscal authority, the electoral stakes should be greater in a state in which fiscal policies are perceived to have a more profound impact on the citizenry.

In contrast, the relationship between state fiscal measures and turnout should not be evident in nongubernatorial election years. The implication is that between-state effects should not be apparent in nongubernatorial election years. Thus, the following hypotheses are tested:

H1: In gubernatorial election years, *ceteris paribus*, voter turnout rates are more likely to be higher in states in which state government expenditures or tax burdens are greater.

H2: In nongubernatorial election years, *ceteris paribus*, state government expenditures or tax levels should have no significant effect on voter turnout rates.

Methods

Analysis of these hypotheses proceeds in three parts. First, the relationship between state fiscal policy measures and state-level voter turnout in off-year gubernatorial elections in 1990, 1994, and 1998 is tested. The sample for this analysis includes the 36 states that had gubernatorial elections in each of these years.[2] Gubernatorial elections in off-years are used so that between-state effects are not diluted by the overall higher levels of turnout in presidential years in which some states were battleground states and others were simply ignored (Jackson 2002). As noted, significant associations should be found between state taxing and spending measures and voter turnout rates in these gubernatorial election years.

Second, using the identical sample of states, the same relationship is tested for nongubernatorial (presidential) election years 1992, 1996, and 2000, when the sampled states had no gubernatorial races on the ballot. Replication in this manner is important because in these years, the between-state effects should not be apparent. The implication then is that no significant relationship should be found between state taxing and spending measures and voter turnout under these conditions, and the electoral stakes should not differ across these dimensions.

One potential problem with using this method to test for the absence of between-state effects across the state taxing and spending dimensions is that because the absence of a gubernatorial contest in 1992, 1996, and 2000 in the sampled states is replaced with a presidential race, nongubernatorial elections may be confounded with presidential elections. Therefore, a third and final component of the analysis is introduced to again test for the lack of an effect between state taxing and spending measures and voter turnout in nongubernatorial election years. The key difference here, however, is that a new, alternative sample of states is derived from the remaining 14 states in which gubernatorial races were

not on the ballot in 1990, 1994, and 1998 election years.[3] Again, given the absence of gubernatorial elections in these particular states in these election years, there should be no significant relationship between a state's fiscal policies and voter turnout. Importantly, this final component of the analysis not only eliminates the potential for confounding results among nongubernatorial and presidential elections but also produces a direct test of voter turnout rates when no gubernatorial races were on the ballot but when state spending and taxing measures remained comparable to those of states that did have races in those same election years.

Voter Turnout

State-level voter turnout is a measure of turnout among a state's voting-eligible population. Traditionally, voter turnout has been calculated by dividing the number of votes in a given election by the voting-age population. McDonald and Popkin (2001) argue, however, that this measure raises concerns about validity because it includes noncitizens and felons who are actually ineligible to vote. Their estimate of voting-eligible population excludes these groups to more accurately reflect the true voting-eligible population. The dependent variable in this study is based on their estimate (see McDonald 2004), which eliminates the validity concerns associated with using turnout rates among voting-age populations across the states.

The voter turnout dependent variable is drawn from election years 1990–2000. For each state and year in which a gubernatorial race was on the ballot (1990, 1994, and 1998), voter turnout is calculated by dividing the total number of votes cast for governor by the total number of eligible voters. In nongubernatorial election years (1992, 1996, and 2000), turnout is calculated by dividing the total number of votes cast for president. For the alternative state sample that includes nongubernatorial election years (1990, 1994, and 1998), voter turnout is measured by dividing the total turnout in U.S. congressional races by the total number of eligible voters. Turnout data are from Barone and Ujifusa (1992–2002) and McDonald (2004).

State Fiscal Policies

To account for the nature of state fiscal policies, measures of state expenditures and relative tax burdens were created. The state expenditures variable is a measure of state spending (as shares of the state economy according to gross state product indicators) across a number of different policy areas. Types of cross-domain spending include direct service provision, capital spending, and debt service payments. Here, only those expenditures that are most likely to increase the benefits of government outputs—representing issues that ultimately drive voters to the polls on election day—are included. Specifically, state expenditures on education, public welfare, highway construction, hospitals, natural resources, corrections, healthcare, and police services are incorporated in the measure. Data are drawn from the U.S. Census Bureau (2007).

For each election year under consideration, total state expenditures are averaged from the previous three years in addition to the election year itself. For example, to create a state spending measure for the 1998 election, each state's expenditures in 1995, 1996, 1997, and 1998 are totaled and then each year's total expenditures are divided respectively by gross state product in order to control for state size. Yearly figures are then summed and averaged. Including a calculation of average expenditures across a number of years should reduce the possibility of biased estimates that may result from abnormally high rates of state spending during an election year itself (if, for example, state politicians tried to increase state spending in an election year in an attempt to garner more votes).

As with the state expenditures indicator, an average per capita tax burden measure is created for each election year and the three years prior to the election. For example, in order to calculate the average tax burden for the 1998 election, the total amount of tax revenues for

each state in 1995, 1996, 1997, and 1998 is divided by the state population in those same years. Yearly figures are then summed and averaged. Tax revenues include those from state income, property, sales, corporate, fuel, and motor vehicle taxes, among others. Data are drawn from the Council of State Governments (1987–2002).

State expenditures and tax burdens are clearly related but are independently determined. State expenditures are driven not simply by tax revenues from individual citizens but also by bond debt; revenues from extractive industries and natural resources (oil, gas, mineral rights, or logging); gambling revenues; and outright fees for services. Each state chooses from which sources it will derive its revenue. The Pearson's *r* correlation between the tax burden and state expenditures variables in the data is 0.42. As might be expected, there is a relationship—albeit indeterminable—between taxes and spending.[4]

Additional Predictors of Voter Turnout

Although the main focus here is on the relationship between the two measures of state fiscal policies and voter turnout, in order to build a more complete model, several additional controls are included that have been shown previously to influence voter turnout rates. Institutional rules, mobilization efforts of elites, and socioeconomic characteristics have been shown to be important factors in determining voter turnout rates (Leighley 1995).

Much of the interest in the interplay between institutions and voter turnout has focused on voter registration laws. Scholars often point to states' and localities' restrictions on access to the ballot and absence of opportunities to vote on or before election day as driving up the costs of political participation and suppressing voter turnout (Brown, Jackson, and Wright 1999; Highton 1997; Mitchell and Wlezien 1995; Wolfinger and Rosenstone 1980). Given these findings, the regression models include a variable for voter registration requirements in each state, measured as the number of days before an election an individual can register to vote. States that have election-day registration are coded 0; states that require registration a month before election day are coded 30. In those states where it is easier to register to vote, higher turnout rates are expected.

Political scholars have long recognized differences in turnout rates as being a function of education, income, and racial characteristics. Individuals who have higher levels of education and income are more likely to vote (Wolfinger and Rosenstone 1980). To account for income and education effects, a state median income variable is included. Education is measured by the percentage of state residents who are at least 25 years of age who have earned a high school diploma or higher. Income and education data are drawn from the 1990 and 2000 U.S. censuses (U.S. Census Bureau 2006). Voter turnout is expected to be higher in states in which income and education levels are higher.

In terms of racial and ethnic diversity, Key (1949) and Hero (1998) have shown that these factors have an effect on voter turnout rates at the subnational level. Racial diversity has been correlated with lower levels of voter turnout, weaker mobilizing institutions, and more restrictive voter registration laws (Hill and Leighley 1999). Hero's (1998) measures of racial and ethnic diversity are employed. Lower turnout is expected in states that have greater racial and ethnic diversity.[5]

Several election-specific characteristics are also controlled for, including the presence or absence of a U.S. Senate race, the number of statewide initiatives on state ballots, the closeness of an election, and campaign expenditures. Having a U.S. Senate race on the same ballot may cause people to turn out and vote in higher numbers. Similarly, having several voter initiatives on the ballot also may prompt higher turnout (Tolbert, Grummel, and Smith 2001). Measures for the presence of a U.S. Senate race (dummy code 1 = presence of Senate race; 0 = otherwise) and the total number of initiatives on the ballot are therefore

included. Initiative data are from the Initiative and Referendum Institute (2002) and include the total number of initiatives placed on state ballots by petition. The measure does not include popular referendums or measures initiated by state legislatures.

The closeness of an election has been found to correspond with increased turnout in gubernatorial elections (Barzel and Silberberg 1973; Patterson and Caldiera 1983); state legislative elections (Dawson and Zinser 1976); and presidential elections (Kau and Rubin 1976). To control for this effect, a measure of election closeness is included. In gubernatorial election years, election closeness is calculated by dividing the margin of victory by the total number of votes cast in each state's gubernatorial election. In nongubernatorial years (presidential years), margin of victory is divided by the total number of votes cast in each state's presidential election. Data are from Barone and Ujifusa (1992–2002). In close elections, higher levels of turnout are expected.

Aldrich (1996) suggests that political elites (e.g., candidates, political parties) are more likely to mobilize citizens to vote in closer elections. Because political mobilization is expensive, there is a connection between the closeness of elections and campaign expenditures. However, Cox and Munger (1989) provide convincing empirical evidence that these factors are independently good predictors of turnout. To account for high-stimulus campaigns, a measure of campaign expenditures is included for each state. In the first regression model, which includes gubernatorial election years, expenditure data are drawn from Jensen and Beyle (2003). The campaign expenditures variable is a per capita measure that includes the total number of campaign expenditures in each state during each of the gubernatorial election years under consideration (1990, 1994, and 1998).[6] It is expected that in those races in which expenditures are higher, voters are more aware of the contest, take more interest in it, and turn out to vote on election day.

Finally, controls are included for state legislative professionalism and state ideology. In states that have more professional legislatures, the political stakes are generally considered to be higher, creating incentives among candidates in particular to raise and expend resources to get elected. To control for state legislative professionalism, Squire's (1992) professionalization scores are included. Scores follow a 0 to 1 continuum, with higher values indicating a greater degree of professionalization. Higher levels of voter turnout should be expected in states that have more professionalized state legislatures. A measure of state ideology is also added to control for the possibility that any significant relationship found between voter turnout and state fiscal policies is in fact merely a function of liberal ideological orientations (Erikson, Wright, and McIver 1993). Data are drawn from the U.S. Senate Election Study (see Norrander 2001), with higher scores representing more conservative ideological leanings.[7]

Results

Table 1 presents the first estimated OLS regression model of voter turnout, pooling election years 1990, 1994, and 1998.[8] In this first regression model, the states included in the analysis all had gubernatorial elections on the ballot in these election years. Following the second-order elections idea, state fiscal policies should significantly influence voter turnout rates. Additional dummy codes are assigned for election years 1990 and 1994 to account for specific election-year effects. Robust standard errors are used to account for the failure to meet the assumptions of normality and homoskedastic variance of the residuals.[9]

The results in Model 1 are consistent with the first hypothesis that in gubernatorial election years, voter turnout rates should be higher in states in which tax burdens or expenditures are greater. The statistically significant and positive coefficients on the state tax burden and state expenditures measures suggest that even after controlling for additional predictors, voter turnout rates are

higher in states that impose higher taxes and spend more.

Translating abstract standardized coefficients into more meaningful units indicates that a one-standard deviation increase in the tax burden measure ($438.52 per capita) produces on average a 2.3 percent higher turnout rate among the voting-eligible population. *Ceteris paribus*, a state like Massachusetts with an average tax burden ($1,869.82) just over one standard deviation above the sample mean ($1,469) would equate to a 2.4 percent higher voter turnout relative to a state like Iowa with a tax burden ($1435.04) close to the sample mean. Even larger differences in turnout may be found between states whose tax burden rates deviate even more drastically from the mean. For example, in Hawaii, with an average tax burden of ($2,435), voter turnout rates would be over 6 percent higher relative to the state of Texas, where the average tax burden ($1058.22) is one of the lowest in the United States. Results indicate that a one-standard deviation increase in state expenditures (standard deviation = 1.9 percent of gross state product) equates to an average 1.7 percent increase in voter turnout among states' voting-eligible population.[10]

Table 1. Voter Turnout in Gubernatorial Election Years 1990, 1994, and 1998 (Model 1)

	Percent Voter Turnout	
Predictor	***b***	**standardized *b***
State tax burden	.005**	.297
	(.002)	
State expenditures	.916**	.228
	(.436)	
Voter registration	−.003***	−.498
	(.146)	
Income	−.000	−.097
	(.000)	
Education	.634***	.385
	(.248)	
Racial diversity	−.067	−.165
	(.049)	
Ethnic	−.045	−.052
	(.112)	
U.S. Senate race	.016	.099
	(.011)	
Number of initiatives	.003*	.140
	(.002)	
Election closeness	−.050	−.084
	(.045)	
Campaign expenditures	.003*	.156
	(.002)	
Legislative professionalism	.000	.109
	(.000)	
State ideology	−.008	.107
	(.050)	
Dummy code (1990)	.025	−.028
	(.040)	
Dummy code (1994)	.021	.131
	(.020)	
Constant	−.346	
	(.391)	

*$p < .10$. **$p < .05$. ***$p < .01$. $N = 108$. $R^2 = .63$.
Note: Robust standard errors are in parentheses.

Among control variables, campaign expenditures, voter registration requirements, and education all correlate with voter turnout rates in the expected direction. In addition, the number of initiatives on the ballot has a positive relationship with turnout ($p < .10$), indicating that voter turnout rates are higher on average when statewide propositions are involved. This finding coincides with recent research on voter turnout rates and the presence of ballot initiatives (Tolbert and Smith 2005). Overall, the findings presented in Model 1 show support for the first hypothesis and lend initial evidence in support of the central argument that the electoral consequences are greater in states that tax and spend more, producing overall higher levels of voter turnout.

To show that these dynamics are apparent only in those elections in which the stakes actually vary, the next step of the analysis is to use the same sample of states in Model 1 to test the relationship between state taxing and spending levels and voter turnout in nongubernatorial elections (i.e., elections in which the consequences should not differ across these dimensions). Table 2 presents the esti-

mated OLS regression model of voter turnout for pooled nongubernatorial election years (1992, 1996, and 2000) using an almost identical set of predictors as seen in Table 1. The only change is that the campaign expenditures variable used in Model 1 is substituted for a presidential "swing" state dummy variable in Model 2. Because presidential campaign expenditures are difficult to track at the state level, a dummy variable is included in the model, coded 1 if a state is considered a swing state as reported in the *New York Times* (0 if it is not). The assumption is that campaign expenditures likely are higher in those states considered to be battleground states.

The results for Model 2 showing no relationship between state taxing and spending measures and voter turnout in elections in which the electoral stakes do not differ lends initial support for the second hypothesis.[11] It follows that because gubernatorial races are absent on state ballots in these years—that is, there is no competition for the office that has the most fiscal authority—the electoral stakes among the states do not differ across the taxing and spending dimensions. Thus, the factors included in this regression model have no significant predictive power to explain the dependent variable. Of the control variables, states that have more restrictive voter registration laws and greater racial diversity and those that are more ideologically conservative accordingly have lower levels of voter turnout. States in which educational attainment levels are higher and there are a greater number of initiatives on the ballot have higher rates of turnout.

Despite tacit support for the second hypothesis, testing for the absence of an effect between the state taxing and spending measures in nongubernatorial elections years by using presidential election years may potentially confound the results. A third OLS regression model of voter turnout is therefore tested (pooling election years 1990, 1994, and 1998) that includes the 14 states in the alternative state sample that did not have gubernatorial races on state ballots in these years (see Table 3). Thus, Model 3 excludes any presidential-year effects but also provides a direct test of voter turnout when gubernatorial races were absent but when state spending and taxing measures remained comparable to the 36 states with gubernatorial races on the ballot in the same election years. Because

Table 2. Voter Turnout in Nongubernatorial Election Years 1992, 1996, and 2000 (Model 2)

	Percent Voter Turnout	
Predictor	***b***	**standardized *b***
State tax burden	.000	.023
	(.000)	
State expenditures	−.005	−.001
	(.269)	
Voter registration	−.008**	.284
	(.063)	
Income	−.000	−.026
	(.000)	
Education	.305**	.202
	(.178)	
Racial diversity	−.171***	−.428
	(.037)	
Ethnic diversity	.000	.006
	(.084)	
U.S. Senate race	−.000	−.001
	(.009)	
Number of initiatives	.002**	.147
	(.001)	
Election closeness	−.074	−.071
	(.054)	
Swing state	–.003	−.019
	(.011)	
Legislative professionalism	−.001	−.023
	(.000)	
State ideology	−.072***	−.240
	(.024)	
Dummy code (1992)	.062***	.392
	(.017)	
Dummy code (1996)	−.015	−.095
	(.014)	
Constant	.468**	
	(.213)	

*$p < .10$. **$p < .05$. ***$p < .01$. $N = 108$. $R^2 = .76$.
Note: Robust standard errors are in parentheses.

the electoral stakes in the states included in the sample in Model 3 should not differ across taxing and spending dimensions, and coefficients for the state expenditure and state tax burden variables should not be statistically significant.

Importantly, the results in Model 3 are similar to those in Model 2. Most notably, the state tax burden and state expenditures variables again fail to reach statistical significance, further indicating the robustness of the findings and support for the second hypothesis. Control variables including income, the number of initiatives on the ballot, the presence of a U.S. Senate race, and state legislative professionalism are all positively associated with voter turnout levels; stricter voter registration requirements are negatively associated with turnout rates.

Overall, the combination of findings presented in the three regression models in Tables 1–3 provide strong empirical support for the central argument advanced in this study that when state governments spend more or tax more, the electoral stakes become greater, resulting in higher levels of voter turnout in statewide elections.

Table 3. Voter Turnout in Nongubernatorial Election Years 1990, 1994, and 1998 (Model 3)

	Percent Voter Turnout	
Predictor	***b***	**standardized *b***
State tax burden	.000 (.000)	.086
State expenditures	.298 (.579)	.093
Voter registration	−.003*** (.063)	−.496
Income	.000** (.000)	.993
Education	−.007 (.004)	−.431
Racial diversity	−.010 (.077)	−.018
Ethnic diversity	−.397* (.204)	−.285
U.S. Senate race	.055*** (.014)	−.349
Number of initiatives	.025*** (.004)	.408
Legislative professionalism	.130** (.050)	.243
State ideology	−.046 (.068)	−.117
Dummy code (1990)	.116** (.046)	.746
Dummy code (1994)	.070** (.029)	.451
Constant	.313 (.281)	

*$p < .10$. **$p < .05$. ***$p < .01$. $N = 42$. $R^2 = .74$.
Note: Robust standard errors are in parentheses. This model is based on an alternative state sample.

Conclusion

By casting differences in voter turnout as a function of the relative importance of state elections, this study has advanced a new explanation of how state context affects voter turnout rates in the U.S. states. The results here suggest that statewide (or second-order) elections cannot all be treated the same and that some are more important than others. It is these singularities that account for differences in turnout rates across the U.S. states. A large part of what impels differences in the electoral stakes connected with state elections is the nature of state fiscal policies. In states that spend more on valuable public programs and services that benefit citizens, including education, hospitals, roads, or libraries, the political stakes likely become greater and turnout rates increase. It is important to note that state fiscal policies do not necessarily have to be perceived in positive terms: heavier tax burdens and policies resulting in greater costs that are passed along to citizens increase the political consequences of an election and drive up turnout rates.

In the comparative European literature from which this study draws, traditional tests of a second-order effect often have relied on

examining differences in voting behavior in national and subnational elections. These studies are important because they provide credence to the idea that voter turnout is a function of how consequential elections are for citizens, but their scope is limited. Applying the second-order idea to the U.S. states, in which there is substantial variation in the activities and functions of state governments, illustrates that part of what drives differences in electoral stakes is how much government does, or the impact government has on citizens' lives. Thus, applying the idea to the U.S. states significantly enhances our understanding of the forces behind the second-order effect and demonstrates that the concept can be extended beyond traditional national/subnational comparisons and be used to explain differences in turnout across local elections.

Although the underpinnings of the relationship between state fiscal policies and turnout cannot be determined precisely, voters tend to vote in higher numbers when state fiscal policies take on greater significance and, in turn, state elections become more important. It may be that voters are cognizant of state fiscal policies and the electoral stakes connected with an election. Alternatively, higher levels of state taxing and spending may increase the electoral stakes with the effect of causing political parties, candidates, and interest groups to expend greater effort and resources trying to mobilize voters to go to the polls. Future research is needed to determine the specific direct and indirect forces behind this relationship. The results of this study suggest, however, that the prevailing view that U.S. elections are characterized by disaffected, politically alienated citizens and low levels of turnout may not be entirely accurate. Rather, the scenario may be made more complex by political context and the nature of state fiscal policies. Indeed, citizens may pay more attention to the issues and vote in greater numbers when they perceive an election to have greater saliency—an encouraging sign for representative democracy.

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Notes

1. The *b* term as used in the voting literature refers to the benefits of voting outlined in Downs's (1957) calculus of voting. The calculus has been modified by others, including Riker and Ordeshook (1968), and has been shown to have predictive utility.
2. This sample includes Alabama, Alaska, Arizona, Arkansas, California, Colorado, Connecticut, Florida, Georgia, Hawaii, Idaho, Illinois, Iowa, Kansas, Maine, Maryland, Massachusetts, Minnesota, Nebraska, Nevada, New Hampshire, New Mexico, New York, Ohio, Oklahoma, Oregon, Pennsylvania, Rhode Island, South Carolina, South Dakota, Tennessee, Texas, Vermont, Wisconsin, and Wyoming.

3. For this analysis, the sample includes the states of Delaware, Indiana, Kentucky, Louisiana, Michigan, Mississippi, Missouri, New Jersey, North Carolina, North Dakota, Utah, Virginia, Washington, and West Virginia.
4. Indeed, in the empirical analysis, standard tests show no significant signs of multicollinearity when both the state expenditures and tax burdens measures are introduced into the same model. The maximum mean variance inflation factor scores calculated as part of the regression models presented in Tables 1–3 never exceeded 3.01.
5. Hero's racial diversity and ethnicity scores have a high correlation with Elazar's (1966) political culture typology, suggesting that Hero's measures also control for any political culture effects that may influence voter turnout rates while eliminating the reliability concerns connected with Elazar's typology.
6. This measure includes spending by political candidates but not money spent by political parties, which have fewer restrictions on raising money for candidates (Jewell and Morehouse 2000).
7. The ideology scores are created from the Senate National Election Study (SNES) and are positively correlated ($r = .63$; $p < .01$) with those drawn from Erikson, Wright, and McIver (1993). Ideology scores from the SNES have a couple advantages. First, an ideology score is available for Alaska and Hawaii, whereas the Erikson, Wright, and McIver data exclude these two states. Second, the SNES uses a state-based rather than national sampling frame. Even with the smaller sampling size than that used by Erikson, Wright, and McIver (1993), the ideology scores are reliable (Norrander 2001).
8. The rationale behind pooling the data is that it increases the sample size, and coefficient estimates become more efficient and better capable of making good inferences (see Gujarati 1995). In short, by pooling the data, standard errors should be reduced, thus stabilizing each coefficient's estimate around its true parameter. Beck and Katz (1995) show that OLS parameters are acceptable even in pooled situations but that standard errors are often problematic in that researchers may be misled in claiming statistical significance. Because it is known from cross-sectional results (not reported here) that the parameters pass standard thresholds of statistical significance in each election cycle, the confounding nature of standard errors is not a concern. Therefore, emphasis is placed on the substantive importance of these results.
9. In OLS regression, it is assumed the disturbance term is distributed normally, with a mean of 0 and a fixed variance ($e_i \sim N[0, \sigma 2]$). Tests for heteroskedasticity show the problem is most pronounced in Model 2. Breusch-Pagan/Cook Weisberg tests for heteroskedasticity with a null hypothesis of constant variance of the error terms produced $\chi^2 = 3.08$, $p < .089$. To account for estimation problems due to heteroskedasticity, the robust option in STATA was used. This approach produces Huber-White robust estimates of the standard errors, which accounts for variability in the residuals.
10. Regression results not reported here show very similar results when voting-age population is used in the dependent variable rather than voting-eligible population. The standardized beta coefficients on the state taxing and spending measures are slightly weaker but remain significant at $p < .05$. Among controls, both the racial diversity and margin of victory variables obtain statistical significance in the expected directions. Overall, these results suggest the findings are robust: state taxing and spending indicators retain their significance even when alternative voter turnout measures are used.
11. In results not shown here, two additional models were run substituting turnout among registered voters and turnout among a state's voting-age population in the dependent variable. In neither of these models did the state taxing and spending measures achieve statistical significance.

References

Aldrich, John. 1996. Rational choice and turnout. *American Journal of Political Science* 37:246–78.

Barone, Michael, and Grant Ujifusa. 1992–2002. *Almanac of American politics*. Washington, DC: National Journal.

Barzel, Yorman, and Eugene Silberberg. 1973. Is the act of voting rational? *Public Choice* 16:1–58.

Bauer, John R. 1990. Patterns of voter participation in the American states. *Social Science Quarterly* 71:824–34.

Beck, Nathaniel, and Jonathan Katz. 1995. What to do (and not to do) with time series cross-section data. *American Political Science Review* 89:634–47.

Brown, Robert D., Robert A. Jackson, and Gerald C. Wright. 1999. Registration, turnout, and state party systems. *Political Research Quarterly* 52:463–79.

Council of State Governments. 1987–2002. *Book of the states*. Lexington, KY: Council of State Governments.

Cox, Gary W., and Michael C. Munger. 1989. Closeness, expenditures, and turnout in the 1982 U.S. House elections. *American Political Science Review* 83:217–32.

Dawson, Paul A., and James E. Zinser. 1976. Political finance and participation in congressional elections. *Annals of the American Academy of Political and Social Science* 425:59–73.

Delli Carpini, Michael X., and Scott Keeter. 1996. *What Americans know about politics and why it matters*. New Haven, CT: Yale University Press.

Downs, Anthony. 1957. *An economic theory of democracy*. New York: Harper and Row.

Dye, Thomas R. 1966. *Politics, economics, and public policy: Outcomes in the American states*. Chicago: Rand McNally.

Elazar, Daniel J. 1966. *American federalism: A view from the states*. New York: Crowell.

Erikson, Robert. S., Gerald Wright, and John P. McIver. 1993. *Statehouse democracy*. New York: Cambridge University Press.

Franklin, Michael, Cess van der Eijk, and Erik Oppenhuis. 1996. The institutional context: Turnout. In *Choosing Europe?* ed. Cess van der Eijk and Mark N. Franklin. Ann Arbor: University of Michigan Press.

Gosling, James J. 1994. Budget procedures and executive review in state legislatures. In *Encyclopedia of American legislatures*, ed. Joseph Silbey. New York: Scribners.

Gujarati, Domodar N. 1995. *Basic econometrics*. New York: McGraw-Hill.

Hajnal, Zolton, and Paul G. Lewis. 2003. Municipal institutions and voter turnout in local elections. *Urban Affairs Review* 38:645–68.

Highton, Benjamin. 1997. Easy registration and voter turnout. *Journal of Politics* 59:565–75.

Hill, Kim-Quaile, and Jan E. Leighley. 1999. Racial diversity, voter turnout, and mobilizing institutions in the United States. *American Politics Quarterly* 27: 275–95.

Hero, Rodney. 1998. *Faces of inequality: Social diversity in American politics*. New York: Oxford University Press.

Initiative and Referendum Institute. 2002. *Initiative use*. www.iandrinstitute.org. Accessed November 22, 2006.

Jackson, Robert A. 2002. Gubernatorial and senatorial campaign mobilization of voters. *Political Research Quarterly* 55:825–44.

Jensen, Jennifer M., and Thad Beyle. 2003. Of footnotes, missing data, and lessons for 50-state data collection: The gubernatorial campaign finance project, 1977–2001. *State Politics and Policy Quarterly* 3:203–14.

Jewell, Malcolm E., and Sarah M. Morehouse. 2000. *Political parties and elections in American States*. Washington, DC: CQ Press.

Kau, James B., and Paul H. Rubin. 1976. The electoral college and the rational vote. *Public Choice* 27: 101–7.

Key, V. O. 1949. *Southern politics in state and nation*. New York: Knopf.

Leighley, Jan E. 1995. Attitudes, opportunities, and incentives: A field essay on political participation. *Political Research Quarterly* 48:181–209.

Leighley, Jan E., and Jonathan Nagler. 1992. Individual and systemic influences on turnout. *Journal of Politics* 54:718–40.

Marsh, Michael. 1998. Testing the second-order election model after four European elections. *British Journal of Political Science* 28:591–607.

McDonald, Michael P. 2004. *United States Election Project: Voter turnout*. elections.gmu.edu/voter_turnout.htm. Accessed November 20, 2006.

McDonald, Michael P., and Samuel Popkin. 2001. The myth of the vanishing voter. *American Political Science Review* 95:963–74.

Mitchell, Glenn E., and Christopher Wlezien. 1995. The impact of legal constraints on voter registration, turnout, and the composition of the American electorate. *Political Behavior* 17:179–202.

Norrander, Barbara. 2001. Measuring state public opinion with the Senate national election study. *State Politics and Policy Quarterly* 1:111–25.

Patterson, Samuel C., and Gregory A. Caldiera. 1983. Getting out the vote: Participation in gubernatorial elections. *American Political Science Review* 77:675–89.

Reif, Karlheinz. 1985. Ten second-order elections. In *Ten European elections*, ed. Karlheinz Reif. Aldershot: Gower.

Reif, Karlheinz, and Hermann H. Schmitt. 1980. Nine second-order national elections: A conceptual framework for the analysis of European election results. *European Journal of Political Research* 8:3–44.

Riker, William H., and Peter C. Ordeshook. 1968. A theory of the calculus of voting. *American Political Science Review* 62:25–41.

Squire, Peverill. 1992. Legislative professionalization and membership diversity. *Legislative Studies Quarterly* 17:69–79.

Tolbert, Caroline J., and Daniel A. Smith. 2005. The educative effects of ballot initiatives on voter turnout. *American Politics Research* 33:283–309.

Tolbert, Caroline J., John A. Grummel, and Daniel A. Smith. 2001. The effects of ballot initiatives on voter turnout in the American states. *American Politics Research* 29:625–48.

U.S. Census Bureau. 2006. *State and county quick facts*. quickfacts.census.gov. Accessed July 23.

———— . 2007. *Statistical abstract of the United States*. www.census.gov/compendia/statab/income_expenditures_wealth/gross_domestic_product_and_gross_state_product/. Accessed April 18.

Wilson, David, and Chris Game. 2002. *Local government in the United Kingdom*. Palgrave: Macmillan.

Wolfinger, Raymond E., and Steven J. Rosenstone. 1980. *Who votes?* New Haven: Yale University Press.

Zaller, John R. 1992. *The nature and origins of mass opinion*. New York: Cambridge University Press.