# **State Income, Employment, Infrastructure and Well-Being:**

# **Do Party Control and Political Competition Matter?**

by

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#### Abstract

This paper examines the relationship between state party politics and the economic performance of the state over six four-year periods covering the years 1978 to 2002. Novel features include that the study examines the role of party control in a panel, it examines the effects of political competitiveness, measures effects not only on income variables but also on employment, tax, and spending policies, infrastructure investment, and quality of life variables. The main finding is that control of the executive branch, the legislative branch, or both branches, has no significant effect on state outcomes, but the degree of political competitiveness in these data reveals significant and usually beneficial effects on employment and on quality of life outcomes. The paper also investigates possible factors that could otherwise mistakenly account for the negative conclusion on party control. We hypothesize that both parties, when in competition for votes, will adopt those economic policies believed to be effective by the politically median voter, regardless of party stereotypes, but that the competition between the parties may provide benefits to the public by forcing politicians to sharpen their policy skills.

#### I. Introduction

Numerous studies address the effect of economic conditions on election outcomes. Several focus on presidential elections (Fair, 1978; Meltzer and Vellrath, 1975; Abrams and Settle, 1978), and others on congressional elections (Bennett and Wiseman, 1991; Zupan, 1991; Kramer, 1971; Stigler, 1973). Other studies examine gubernatorial elections (Peltzman, 1987; Adams and Kenny, 1989). The general approach in these cases was to associate the votes for the incumbent party (or candidate) with economic performance, especially the immediate period preceding the election. Intuitively, we expected that "good" economic performance rewards the incumbent party.

Very few, however, study the question of whether it makes any difference which party is in power, or whether political competitiveness itself has an effect on state outcomes. Regarding the effect of party control, two exceptions are papers by Blaise, Blake and Dion (1993 and 1996). In the first one, the authors asked "...if it matters which party forms the government." These authors look at the effect of party on government size, that is, how much government spends.<sup>1</sup> In the second, they test the effect of the party on the rate of increase in government's spending. Their sample consists of national governments. Winters (1976) investigated the effect of the party on state government size. Brace (1989) raised the question as we do, "...how state politics, however defined, might influence state economies"; his work has shown the importance of the national markets on state performance and finds a general irrelevance of state politics and policies. According to findings of Gilligan and Matsusaka (1995), state "political parties do not have a pronounced effect on overall levels of expenditure, but do influence the composition of spending" (p. 383). Levitt and Poterba (1999) investigate "...the effect of representation on an economic outcome..." In their case they study the effect of the political party of the state governor on welfare spending.

The present study focuses on the effect of party composition and political competition on the economic outcomes of states including those intermediate state practices that can affect either state income or the well-being of its citizens. This takes the investigation "behind the scenes" to examine the mechanisms in comparison to the public stereotypes of the parties: Do Democrats reduce the unemployment rate, invest more in public schooling, highways, do they raise tax rates? Do Republicans foster a better and safer quality of life, are they more business friendly? The advantage of using the state as the unit of observation is that it provides a sample large enough to test several hypotheses.<sup>2</sup> Also, the economic aspects of state elections might be more important to individual's economic lives than national elections if only because national elections usually are dominated by non-economic issues such as foreign policy and national security. However, a disadvantage arises in that state governments have relatively little control of state income performance, despite campaign rhetoric. The present framework requires that they have at least in principle, the power to influence state outcomes. We also present evidence on the question: Does the performance of the state economy depend to a substantial extent on developments occurring outside the state borders, i.e., on the regional or national level.<sup>3</sup>

However, even though state governments print no money nor protect their borders against competition from other states and countries, they still enjoy enough power in principle to have an influence on their voters' economic well being to some extent. Examples of policies include: 1) the power to tax (positive and negative), 2) the decisions on what to spend budget money and how much, 3) the borrowing of money for long-term investments, 4) the development of state infrastructure, 5) the regulation of resources, and 6) the control over the state bureaucracy.<sup>4</sup> According to Hansen (1999), "Since the 1970s state governors have claim to a more active role for themselves in state economic development (p. 170)." This is not to say that the state can determine its own economic destiny by itself. Nevertheless, the state government can control the

magnitude of the spillover effect from the regional and national economies to the state economy.<sup>5</sup> High state taxes and inefficient bureaucracy may slow down and weaken the spillover effect of growing national economy, whereas investment in infrastructure and efficient bureaucracy can bring more economic development to the state.

Since in almost all states, the governor's term lasts four years,<sup>6</sup> we will consider the governor to be accountable for the state economic performance over a period of four to eight years following the governor's term. These lags are chosen to allow time for the government's policies to have effect.

The paper is organized as follows: The next section provides a background discussion of prior empirical work. The third section describes the data and develops the empirical model. The fourth section contains the reports of the regression estimates and the analyses. The last section offers a summary and conclusions.

#### **II.** Background Discussion and Empirical Evidence

The competition over the control of state government takes place mainly over changes in the representation of the two major parties: the Democratic and the Republican parties. As stated by Morehouse (1981), "The single most important factor in state politics is the political party." Winters (1976) adds to this, "We define our candidates in party terms and our issues in party terms."<sup>7</sup> The role political parties play in the political process according to Jones and Hudson (1998) is to "…reduce the 'transaction costs' of electoral participation. Political parties provide a low cost signal of the candidate's policies and personal characteristics and in this way reduce voter's information costs (p. 175)." Greene and Nelson (1998) hypothesize that this is done because the "…party performs as an ideological label (p. 4)." The effect of the party composition of government on policies is the subject of several studies. Winters (1976) looks at

the difference between the two parties regarding the distribution of tax burden and spending benefits. Blaise, Blake and Dion (1993 and 1996) test the effect of the party composition of government on government size as well as the nature of the budget spending. Their findings suggest that in a government controlled by the left, the rate of growth of spending is higher as compared to a government controlled by the right (1996: 517). Morehouse (1981) argues that, "It is not possible to understand the differences in the way states carry out the process of government without understanding the type of party whose representatives are making decisions that affect the health, education, and welfare of its citizens." All these studies are concentrated on the differences in policies due to the party composition of the government.

It is reasonable to expect that the two parties favor "good" economic performance, that is, economic growth, full employment, low taxes and so on.<sup>8</sup> On many occasions, however, it is impossible to achieve all economic goals at the same time, so the government must choose among the different goals. The main differences between the two parties are in the choices that they make, that is, their differences in priorities. Hibbes (1987) suggests that the Democrats favor a high growth rate and low unemployment and Republicans are more concerned with the risk of inflation. Thus, "Democratic administrations are more likely than Republican ones to run the risk of higher inflation rates in order to pursue expansive policies designed to yield lower unemployment and extra growth (p. 218)."<sup>9</sup> A similar view was expressed by Alesina and Rosenthal (1995) regarding the different priorities between the two parties. It is believed that political parties can not signal one set of priorities at the national level and a different one at the state level. Therefore, although Hibbes' observation of the political parties' behavior was at the federal level, it would follow that the same set of priorities is true at the state level. Thus, throughout this study, we search for empirical evidence that the parties follow these stereotypes at the state level.

But, can the null be rejected? The null hypothesis is that state party policies have no effect on state economic performance.

There is another way, however, that state party politics can improve state economic outcomes. Suppose that party characteristics bring the ideological faithful to the voting booth, but the median voters are the ones who swing the election. The two parties, in this view, compete for the center by both promising to address the same centrist priorities. It then is the mere fact of political party competition that benefits the people of the state. Competition forces both parties to strive to develop the genuine capabilities by which to address the need of the public.

In what follows, we develop and estimate an empirical model to address both questions: 1) Does party control matter for state economic outcomes? 2) Does the level of state political competition influence state economic outcomes? The estimates are derived from regressions using panel data methods. But often the simplest statistics can give a useful presaging of where the more sophisticated approaches will lead. Table 1 reports the means of the income growth variables separated into categories by political control during the prior eight years. These data suggest that differences by party control are not great. They also show that much of a state's growth rate reflects growth in its region.<sup>10</sup>

#### TABLE 1 ABOUT HERE

#### III. The Data and the Econometric Models

The data for this study are observations of the 50 states in a panel of six year's crosssections: 1978, 1982, 1986, 1990, 1994, and 1998.<sup>11</sup> Economic variables—GSP, personal income, employment, unemployment—are treated as dependent variables in regression equations applied to test political effects on key economic outcomes, often the focus of state political campaigns. As with all variables in the study, the names and extended definitions and the sources for these variables are provided in the Appendix. Political variables include: political party of governor, party majority in state house and senate, as well as the percentage vote for the Democrat in the most recent presidential election. Quality of life variables include: poverty rate, infant mortality rate, crime rate, and social capital. The social capital rating for each state is provided to this study from a paper on state health issues (Folland, 2007, 2006). Table 2 presents the descriptive statistics for the variables.

#### TABLE 2 ABOUT HERE

In panel regression with fixed effects and period effects, we first apply three variables as measures of economic performance: 1) the rate of growth of real gross state product; 2) GSP per capita and 3) personal income per capita. Political control variables are lagged one period, giving party effects on state outcomes needed time to bear fruit (Adams and Kenny, 1989). Some policy effects take much longer; for example, investment in infrastructure such as highway construction and education; in that case, we test for party effects directly on measures of investment in highway and two education variables.

Party effects, if they exist, require the party's control of the governorship and/or the house and senate of the state. Several measures will be tested to explore these possibilities. When the governorship is controlled by the Democrats, we identify a corresponding variable (*Democratic Governor*) to equal one; zero when the governorship is controlled by the Republicans. When the state house and the state senate are both controlled by a Democratic majority, the corresponding variable (*Both Houses Democrat*) is set to equal one; this variable is zero when Republicans control both houses as well as when control is split. Finally, a minority

of states exhibited control of all--the governorship, the state house and the state senate--by the Democrats; these cases are identified as *Democratic Control*. Similar control by the Republicans is identified as *Republican Control*.

As we analyze the findings, we will look for corroborating or contrasting cases vs. a vs. popular reputations of the parties, each condensed out of perceptions of the parties in the media. Democrats by reputation promote government spending, favor K-12 spending, support unions, promote aid to the poor and support social freedoms. Republicans by the same media, are more business friendly, seek to cut taxes and promote traditional social values.

Nevertheless we propose that alternative views may be more realistic. Both Democratic and Republican parties are composed of coalitions that are sometimes at odds within the Party. Republican advocates of free markets are often at odds with pro-business Republicans who may have strong ties to local firms or industries. Religious and moral issue advocates among Republicans may expend effort on policies that work to place limits on social behaviors, without any economic payoff. Yet, political campaigns often demand that both candidates claim to effectively address economic progress, the campaign priorities that prevail may not be the genuine priorities for some party subgroups.

Democrats similarly collect disparate groups: industrial unions, teachers, immigrants, and both pro-market advocates as well as globalization skeptics. Like their Republican opponents, when billfold issues dominate a campaign, the Democrats must demonstrate that they are at least as competent as the opposition. Since both parties compete for the same prize, and since both parties have member groups who have interests that may conflict with economic progress, the result may become a muddling through during which there may be little real difference between the parties regarding genuine state economic progress. We entered this research as agnostics on these possible outcomes. While previously published articles have been negative on party effects, they have generally been focused on limited aspects of state economic performance. We have designed tests that are more thorough in several respects. First, we construct a panel that offers multiple looks at the 50 states. Second, we look not only on economic progress, but also on effects on policies intermediate to economic progress. Further, we investigate quality of life including the role of alternative theories to political influence, that may affect a community's well being, particularly from political science and sociology.

#### Regression Models

Since there is not a single most acceptable measure of the state performance we experiment with several variables. They are: the rate of growth of real gross state product (% $\Delta GSP$ ), the rate of growth of employment (% $\Delta Employment$ ) the per capita gross state product (*GSP per Capita*), the per capita real personal income (*Personal Income per Capita*) the state unemployment rate (*Unemployment Rate*). All monetary variables were deflated by the consumer price index.<sup>12</sup>

The independent variables include<sup>13</sup> the political party variables. State economic performance can be affected in principle by variables measuring political influence, and we include these in the specification. On one hand, party power does not lie exclusively with the governor but includes other centers of political power, especially the legislative branch. Wagner (2001) find that the level of current spending (or saving) is influenced by members of the lower State House with expectations regarding reelection: "The estimation results indicate that a future change in the controlling party of a state lower house is significantly correlated with a reduction

in current per capita saving (p. 151)." The statistical method chosen is OLS regression analysis with state fixed effect and period effects.

The independent variables include<sup>14</sup> The political party variables, which have been defined. (a complete description of all regression variables is provided in the Appendix.) Following Levitt and Poterba, we also include a variable, *Political Competitiveness*, that measures the degrees of political competition in each state. We assume that competition increases the closer the proportion of Democrats in the House and Senate combined is to the proportion of Republicans. Thus *Political Competitiveness* is measured as the product of the percent of the vote for state house and senate taken by the Democrats times the corresponding Republican percent of the vote. Thus this variable ranges from 0 to 0.25, and it increases as the shares of votes become more equally distributed, hence, more competitive.

The dummy variable, *TwoYear Cycle*, represents the states that held their gubernatorial election every two years. The variable, *%Baccalaureate*, is the education attainment level as measured by the percent of population 25 years or older with four years of college or more. The variable *%Unionized* measures the percent of workers which are members of a union. State fixed effects and period effects were included in all cases. Potentially many state characteristics will affect economic outcomes such as economic resources, urban/rural mix, and local culture. These can in principle be controlled for by applying the fixed effects model in panel. We feel that not applying the fixed effects model would lead to unreliable results.

Other variables studied in this paper include: the state *Tax Rate* defined as state tax revenue as a percent of personal income. The per capita number of full time equivalent state employees, *State FTE Employees,* measures the size of the government. When more state revenue is allocated to infrastructure and human capital development it should have a positive

effect on the state economic performance in later years. We measure *Per Pupil Expenditures*, as well as *Highway Expenditures*, and *College* expenditures by the state, these on a per capita basis.

#### IV. Regression Studies and Analyses

#### A. Income Measures

As shown in Table 3, there are no significant effects of party control on gross state or on personal income per capita. The *Democratic Governor* variable tests for a distinctive role of the governorship; since generally governors are either Democrat or Republican, the result also suggests that having a Republican governor has no effect on state economic performance.

The *Democratic Governor* variable and the *Democratic Control* variable both measure an aspect of Democratic influence. The inclusion of both of these Democratic variables was intended to capture possible independent effects of *Democratic Governor* versus complete *Democratic Control*. For example, does a governor without control of the legislature nevertheless have a positive effect on economic growth? However, the insignificance of the *Democratic Governor* variable implies that no conclusion can be drawn regarding this side hypothesis. We tested the combined hypothesis that the sum of the two Democratic coefficients centers on zero; the Wald Test coefficient for the sum of the two Democratic control coefficients and the corresponding *t* value is given in a separate row.

Equation (1) reports an insignificant result for the variable *Democratic Majority in Both Houses*. The two variables, for Democratic and Republican control, which represent instances of one party control of both the executive branch and the legislative branch of government, also fail to attain significance. Setting *GSP per Capita* as the dependent variable yields similar results. The political variable *Democratic Votes for President* measures the percent of the state voters who voted Democratic in the previous presidential election, and functions loosely as a control for "red states versus blue states". The coefficients for this variable suggest that the level of income is higher but the growth rate lower in the "blue states". The human capital measure, *%Baccalaureate*, enters with the expected positive sign and significant coefficient. *%Unionized* enters positively and significant or close to being significant, suggesting perhaps that organized labor was not an impediment to economic growth.

#### TABLE 3 ABOUT HERE

Also please note that political competitiveness has no significant effect on income variables. Together with lack of significance in the party control variables, these results are consistent with the view that state political groups have achieved little or no influence over state income growth performance.

#### B. Employment

Both the level of employment and growth in employment lag somewhat in "blue states"; see the coefficient for *Democratic Votes for President* in Table 4. State party control, however, (see also the results for both Democratic controls in the Wald Test row) affects neither employment nor unemployment. In contrast, political competition affects employment per capita and the unemployment rate in a salutary manner, suggesting that employment per capita and the unemployment rate both serve as a key political issue and represent cases where policy can affect outcomes.

#### TABLE 4 ABOUT HERE

#### C. Taxing and Spending

Previous studies on the subject, like Blaise, Blake and Dion (1993 and 1996), found that government tends to spend more when it is controlled by a politically left party as compared to a government which controlled by a politically right party. Following this line of thought one might hypothesize that a state controlled by the Democrats tends to have a bigger government. This hypothesis correlates with the political legend that Democrats are the party of "tax and spend". But problems clearly arise with this view. Taxes fund infrastructure investment, thus fueling economic growth, but they also pay for growing consumer tastes for public amenities. Also it is possible that they fund government waste. The true combination of these things may be hard to tell for any given state. Two variables here serve as measures for the size of government, the state *Tax Rate* (the *Tax Rate* is the ratio of total state tax revenue to state personal income) and *State FTE Employees*. The results reported in Table 5, however, indicate no significant influence of the Democratic (as per the Wald Test) or Republican party on these two measures. One does note, however, that %*Unionized* and %*Baccalaureate* do have significant coefficients, and *Political Competitiveness* is significant in the state employees equation.

#### TABLE 5 ABOUT HERE

#### D. Infrastructure Investment

Investment in infrastructure, such as education and highways, reap payoffs for the state that last well into the future, beyond the terms of office of present day state politicians. Hence, these investments would have diminished attractiveness to politicians, at least to those politicians whose primary goal is to get reelected. Table 6 reports no significant effects of party control or competitiveness for investments in K-12 pupils, per capita investments by the state in colleges, or highway expenditures per capita.

#### TABLE 6 ABOUT HERE

## E. Quality of Life

Does party politics matter in residents' everyday lives? Table 7 selects four indicators of quality of life, *Poverty Rate, Infant Mortality Rate, Crime Rate* and *Social Capital*. These indicators are well known, except perhaps for social capital. This is a variation on the Social Capital Index developed by Robert Putnam (2000) for the year 1994 and was extended back to 1976 and made available to this study in work by Folland (2007). It represents a factor analytic combination of survey results regarding people's views of the community, their rate of sociable interchange, and their degree of participation in community activities. The results in Table 7 highlight the role of *Political Competitiveness*, which provides a significant beneficial effect in most cases (the Crime Rate is the exception).

#### TABLE 6 ABOUT HERE

#### F. Challenging the Negative Findings

The repeated finding of "no party control effect" stands out as a central message of this study. While related similar results arise in the literature, those discoveries have been mainly the result of more narrowly focused empiricism or even on conjecture. We searched here for an effect in each place where one could plausibly expect to find one--state economic growth, state personal income levels, employment, taxing and spending, infrastructure, and quality of life--and find that party control fails to emerge as a significant factor. Nevertheless, negative findings can be confounded in well known ways, and it may serve this line of literature to test regarding Type II Error. This subsection addresses the issues of possible severe colinearity, power of the tests, and potentially omitted variables.

The Pearson correlations afford a first step in focusing on multicolinearity among the independent variables. These show that the strongest correlation, that between *Democratic Governor* and *Democratic Control* (0.600), simply a result of their sharing an element. Other correlations among the party variables never exceed 0.300.

Next each independent variable was regressed on the remaining independents, this resulted in R Square values each below 0.600. The following presents the R Square values by that variable which was treated as the independent variable in the test: *Democratic Governor* (0.529); *Democratic Control* (0.571); *Republican Control* (0.286). These tests indicate the existence of statistically significant dependencies among the independents, but none approach severe multicolinearity problems.

The condition indices test more directly for multicolinearity. Two sets of regressors apply here, the version in percent changes and the version in levels. In the first case, the condition index is 12.2, indicating low levels of dependency. The second case, in which percentage change variables are converted to levels, the condition index is 38.8, a moderate level. We also derived the variance decomposition proportions (see Judge et al., 1985), so as to address whether the party variables of interest were involved in the weak dependencies. There was only an indication that the *Democratic Governor* variable and the *%Unionized* variable were involved in a linear relationship indicated by one of the characteristic roots. However, these two were the only variables involved in that root, and their pairwise correlation is extraordinarily small at 0.006.

Given a claim of negative findings, the power of the test becomes clearly relevant. We calculated power (shown in parentheses) of the following effects in the equation for  $\&\Delta GSP$  cases where we rejected the hypothesis of party effects: 1) *Democratic Governor* (0.84); 2) *Democratic Control* (0.73); 3) the sum of the effects of *Democratic Governor* + *Democratic Control* (0.86); and 4) *Republican Control* (0.70). Since the rule of thumb preference for acceptable Power in experiment design is to be between 0.80 and 0.90, these values are either within the acceptable range or close to it.

The most plausibly omitted variables should they exist in this case, would most likely be measures of social, cultural, and local economic resources. For example, recent presidential elections emphasized the political distinction between urban and rural areas. The advantage of using a panel for the present research is that all of these variables are unlikely to have changed much over the range of periods studied. Thus the fixed effects with period effects model is appropriate and accounts in principle for many such characteristics of the states.

#### V. Summary and Conclusion

The voters' decision regarding what party should run their state government for the next four years makes little difference to the state economic performance. State policies of taxing and spending are not a reliable indicator for distinguishing which party is in control. Quality of life indicators show no significant response to Democrats versus Republicans. In contrast, we find that political competition shows some response, as it relates positively to variables like employment per capita and negatively to the poverty rate and infant mortality rate. These results for political party raise the question of: Why? Why does the particular party in control make so little difference on state outcomes? One possible answer, of course, is that of those economists who believe that state economic performance cannot be determined by the state government arguing that the state government's ability to conduct an independent fiscal policy is limited by the fact that they can not print money, and the state is an open economy with free mobility of resources. However, we believe that the state has tools of investment and economic environment to substantially influence its economic development. We argue instead that the economic policy of the state depends on the choices of politicians but simply does not depend on party line. The ideologies of the two major parties are certainly different, yet, whichever party gains power is forced to face reality, that is, the existing perceptions of the voting public. The actual policies come to be not so much based on the party ideology but tend to depend more on the politic and economic market forces. In contested elections, there may not be much room to manipulate. Nevertheless it is still possible for different groups to realize economic gains solely because their party won the election. The coalitions of interest groups expect their party's candidate to do better for the state, but more importantly, to improve their own well being.

A related view is that the political competition itself that is helpful. In this view, competition hones the policy skills of both parties, but the party that survives the competition with the voters is itself an outcome greatly affected by chance. Finally we note that neither party control nor political competition work to improve growth in GSP, it may be that this negative result stems from both state politicians' limited policy ability in this area of endeavor but also from the limited tools by which any state can improve its state product.

# Table 1.

# Mean State Growth Rates Over Two Political Cycles\* by Political Control

Political control throughout prior eight years:	%∆ in GSP	%∆ in GSP Net	%∆ personal income per capita	N
The governorship controlled by Democrats (but statehouse not)	23.72	2.10	8.98	36
Both the statehouse <u>and</u> the governorship controlled by Democrats	30.73	7.98	13.85	41
The governorship controlled by Republicans (But statehouse not)	28.74	9.67	10.60	37
Both the statehouse <u>and</u> the governorship controlled by Republicans	33.26	15.22	12.43	12
Political control mixed between the parties, governorship, statehouse and/or years	21.98	0.87	11.85	74

\*Notes: These mean percentage changes are based on the changes in the variables, from eight years prior to the "present". The percentage changes for the years 1986, 1990, 1994, 1998 were then averaged. The data years 1978 and 1982 were deleted because they lacked the required lagged values.  $\&\Delta$ GSP Net is the percentage change in gross state product net of the mean percentage change within its region.

# Table 2. Descriptive Statistics

Variable	Mean	Std Dev	Min	Max
% Baccalaureate	19.988	4.588	9.700	34.000
Crime Rate	4894.8	1274.9	2253.0	8811.0
Democrat Vote for President	43.371	7.438	24.596	61.478
Democratic Governor	0.504	0.501	0.000	1.000
Democratic Control	0.324	0.469	0.000	1.000
%ΔEmployment	6.590	8.321	-25.925	31.127
Employment per Capita	45.879	4.251	33.935	55.301
%_AGSP	12.96	11.045	-23.960	50.511
GSP per capita	16.07	4.132	10.321	46.371
Highway Expenditures	0.183	0.009	0.0615	0.826
Infant Mortality Rate	9.241	2.102	4.500	17.600
Personal Income per Capita	13.876	2.479	8.611	22.898
Political Competitiveness	0.211	0.051	0.018	0.250
Poverty Rate	12.704	3.705	5.995	26.388
Per Pupil Expenditures	5466.8	1473.9	3099.0	11531.0
Republican Control	0.136	0.343	0.000	1.000
Social Capital	0.020	0.781	-1.430	1.710
State FTE Employees per Capita	1.778	0.596	1.003	4.442
Tax Rate	6.696	2.163	2.586	30.590
Two Year Cycle	0.060	0.238	0.000	1.000
Unemployment Rate	6.302	2.377	2.200	15.500
% Unionized	14.047	6.274	3.469	35.277

#### TABLE 3:

## **Regression Estimates of The Effect of Political Variables on State Economic Performance**

N = 250	(1)	(2)	(3)	(4)
Dependent Variables	$\Delta GSP$	$\Delta GSP$	GSP/Pop	Personal Income/Pop
Intercept	40.820	37.796	-2.026	7.426
Democratic Votes for	-0.713	-0.674	0.116	0.242
President	(2.80)	(2.73)	(2.81)	(1.73)
Both Houses Democrat	-0.407 (0.14)			
Democratic Governor,	0.132	-2.033	-0.441	-0.785
Lagged	(0.07)	(0.74)	(0.97)	(0.52)
Democratic Control		3.678	0.705	0.138
Lagged		(1.13)	(1.30)	(0.75)
Dem Governor & Dem		1.645	0.265	0.059
Control (Wald Test)		(0.71)	(0.68)	(0.46)
Republican Control	-0.858	-2.194	-0.717	-0.217
Lagged	(0.26)	(0.64)	(1.25)	(1.12)
Political Competitiveness	-8.024	-1.474	1.205	0.331
Lagged	(0.26)	(0.04)	(0.24)	(0.19)
Two Year Cycle	-6.563	-6.279	0.458	-0.021
	(0.97)	(0.93)	(0.41)	(0.05)
%∆ Unionized*	0.657	0.693	0.184	0.061
	(1.43)	(1.52)	(2.16)	(2.14)
%∆ Baccalaureate*	0.291	0.286	0.537	0.225
	(3.14)	(3.10)	(5.32)	(6.59)
Mean of Dependent (Std Deviation)	9.917	9.917	16.507	13.876
	(13.22)	(13.22)	(4.132)	(2.479)
$R^2$ (Adj $R^2$ )	0.470	0.473	0.849	0.952
	(0.295)	(0.299)	(0.800)	(0.936)

Notes: *t* value in parenthesis. Asterisks (\*) indicate that for the regression on the per capita level of GSP and the personal income, the baccalaureate rate and the union membership rate are entered as the levels of those variables. The Wald Test is applied to the sum of the coefficients of Democratic Governor and Democratic Control. "GSP/Pop" and "Personal Income/Pop" is defined in \$1,000s per capita.

#### **TABLE 4:**

# The Effect of State Political Variables on Employment and Unemployment, N=250

Dependent Variables	%∆ Employment	Employment per Capita	Unemployment Rate
Intercept	8.318	54.242	3.599
Democratic Votes for President	-0.232 (2.02)	-0.155 (4.42)	0.647 (2.44)
Democratic Governor	-1.248 (0.99)	-0.061 (1.57)	-0.211 (0.72)
Democratic Control	2.171 (1.44)	0.804 (1.75)	0.067 (0.19)
Dem Governor & Dem Contrl Wald	0.923 (0.83)	0.194 (0.59)	-0.144 (0.58)
Republican Control	0.134 (0.08)	-0.069 (0.14)	-0.390 (1.06)
Political Competitiveness	13.668 (0.97)	7.836 (1.83)	-10.948 (3.41)
Two Year Cycle	-4.241 (1.36)	-1.267 (1.32)	1.235 (1.71)
% Population	0.822 (7.45)		
% Unionized*	-1.030 (4.89)	-0.348 (4.84)	0.180 (3.32)
% Baccalaureate*	0.031 (0.74)	0.091 (1.05)	-0.012 (0.19)
Mean of Dep. Var. (Std. Dev.)	6.590 (8.321)	45.879 (4.251)	6.302 (2.377)
$R^2$ (Adj $R^2$ )	0.719 (0.624)	0.897 (0.863)	0.814 (0.752)

Notes: t value in parenthesis. Asterisks (\*) indicate that for the regression on the per capita level of GSP, the baccalaureate rate and the union membership rate are entered as the levels of those variables. The Wald test is applied to the sum of the coefficients of the Democratic Control and the Democratic Governor variables.

# TABLE 5:

Dependent Variables	Tax Rate	State Full Time Equivalent Employees per Capita
Intercept	-2.499	50.647
Democratic Votes for President	0.023 (0.75)	0.233 (1.13)
Democratic Governor	-0.758 (2.25)	2.573 (1.14)
Democratic Control	0.754 (1.88)	-2.754 (1.02)
Dem Governor & Dem Contrl Wald Test	-0.003 (0.01)	-0.180 (0.94)
Republican Control	-0.483 (1.13)	2.078 (0.73)
Political Competitiveness	-0.359 (0.09)	64.479 (2.59)
Two Year Cycle	0.065 (0.07)	3.435 (0.61)
% Unionized	0.254 (4.06)	-0.538 (1.28)
% Baccalaureate	0.246 (3.29)	0.258 (0.52)
Mean of Dep. Var. (Std. Dev.)	6.696 (2.163)	72.968 (62.104)
$R^2$ (Adj $R^2$ )	0.699 (0.602)	0.984 (0.978)

# The Effect of Political Variables on Taxing and Spending, N=250

Note: State FTEs are measured per capita; The TaxRate is calculated as total state tax collections divided by personal income. The Wald test is applied to the sum of the coefficients of the Democratic Control and the Democratic Governor variables.

Dependent Variables	Per Pupil	Highway	College
	Expenditure	Expenditures	Expenditures
Intercept	1830.150	0.095	77.792
Democratic Votes for	18.808	0.001	0.162
President	(1.90)	(1.22)	(0.47)
Democratic Governor	103.669	0.007	1.933
	(0.96)	(0.86)	(0.44)
Democratic Control	-101.052	-0.011	1.374
	(0.78)	(1.16)	(0.23)
Dem Governor & Dem	2.617	-0.004	3.307
Control Wald Test	(0.03)	(0.61)	(0.88)
Republican Control	-130.073	-0.001	5.202
	(0.95)	(0.07)	(0.93)
Political Competitiveness	588.863	-0.088	79.695
	(0.49)	(0.97)	(1.65)
Two Year Cycle	141.95	0.001	2.369
	(0.525)	(0.03)	(0.22)
% Unionized	62.680	0.001	2.938
	(3.09)	(0.32)	(3.58)
% Baccalaureate	90.160	0.002	-1.698
	(3.74)	(1.65)	(1.71)
Mean of Dep. Var. (Std. Dev.)	5466.811	0.183	111.20
	(1473.93)	(0.096)	(42.260)
$R^2$ (Adj $R^2$ )	0.933	0.911	0.866
	(0.911)	(0.881)	(0.822)

# Table 6.Investment in Infrastructure per Capita, N=250

Notes: Highway and College public expenditures are also measured per capita. Per pupil expenditures are those public expenditures applied per student K-12. The Wald test is applied to the sum of the Democratic Governor variable and the Democratic Control variable.

# Table 7.

### **Quality of Life and Political Party**

Dependent Variables	Poverty Rate	Infant Mortality Rate	Crime Rate	Social Capital
Intercept	16.813	12.113	5276.85	-1.232
Democratic Votes for	0.054	-0.034	-25.475	-0.012
President	(1.53)	(1.98)	(2.36)	(1.79)
Democratic Governor	0.481	0.087	-109.335	0.216
	(1.24)	(0.46)	(0.92)	(1.23)
Democratic Control	-0.145	-0.041	114.384	-0.218
	(0.31)	(0.18)	(0.81)	(1.79)
*Dem Governor &	0.335	0.047	5.048	-0.037
Control (Wald Test)	(1.02)	(0.29)	(0.50)	(0.33)
Republican Control	0.535	-0.125	-17.524	0.571
	(1.09)	(0.52)	(0.11)	(4.04)
Political	-14.217	-4.207	4858.54	4.758
Competitiveness	(3.33)	(2.01)	(3.71)	(4.66)
Two Year Cycle	0.282	-0.867	-258.852	0.645
	(0.29)	(1.84)	(0.83)	(3.66)
% Unionized	-0.025	0.008	16.020	0.084
	(0.34)	(0.23)	(0.72)	(1.08)
% Baccalaureate	-0.171	-0.030	-24.214	0.026
	(1.98)	(0.74)	(0.92)	(2.47)
Mean of Dep. Var.	12.704	9.241	4894.81	0.020
(Std. Dev.)	(3.705)	(2.102)	(1274.98)	(0.775)
$R^2$ (Adj $R^2$ )	0.865	0.899	0.892	0.356
	(0.820)	(0.866)	(0.857)	(0.334)

Notes: The Poverty Rate is provided by Current Population Reports, various years; the Infant Mortality Rate is from Vital Statistics of the United States, various years, the Crime Rate stems from Federal Bureau of Investigation data; Social rating for each state in each year was developed originally by Putnam (2000) and extended in a study by Folland (2007).

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# APPENDIX TABLE: List of Variable, Their Definitions and Sources of Data

Variable	Variable Description	Sources of Data
Both Houses Democrat	Both state houses are majority Democrat	The Council of State Governments
Crime Rate	Offenses known to the police per 100,000 population	Crime in the US, FBI
Democratic Control	State where Democrats control Governorship and both Houses	The Council of State Governments
Democratic Governor	State governor is Democrat.	The Council of State Governments
Democratic Votes for President	Percent of voting population who voted for the Democrat for President	The Council of State Governments
Employment	Employment level in the state	U.S. Bureau of Labor Statistics
GSP per Capita	Gross state real product per capita	Survey of Current Business, Bureau of Econ. Analysis
Highway	State highway expenditures per capita	U.S. Bureau of Census
Infant Mortality Rate	Deaths per 1,000 live births	Vital Statistics of the United States, U.S. NCHS
Per Pupil Expenditure	Current expenditures per pupil in elementary and secondary schools	National Education Association
% Baccalaureate	Percent of population over 25 who hold a baccalaureate degree	Current Population Reports, U.S. Bureau of Census
% Unionized	Proportion of workers who are union	The Bureau of National Affairs
Population	State population	Current Population Reports, U.S. Bureau of Census
Poverty Rate	Percent of population below the poverty line	Current Population Reports, U.S. Bureau of Census
Republican Control	State where Republicans control Governorship and both Houses	The Council of State Governments
Social Capital	The Putnam Index of Social Capital	Robert Putnam, <i>Bowling</i> <i>Alone</i> , 2000
State FTE Employees	FTE state government employees per capita	Public Employment, U.S. Bureau of Census
Tax Rate	Total state collected taxes divided by total personal income	U.S. Bureau of Census & Survey of Current Business
Two Year Cycle	State wit an election cycle of every two years	Statistical Abstract of the United States, various years
Unemployment Rate	State unemployment rate	U.S. Bureau of Labor Statistics

## Endnotes

<sup>5</sup> Hendrick and Garand (1991) found that "...the state component of variance in state economic growth dominates the national and regional components during the post war era." p. 1101.

<sup>7</sup> During the act of voting, voters have the option to choose candidates for different elected positions by their party affiliation, i.e., party block.

<sup>8</sup> Note that this 'naive' goal is consistent with the promise of candidates who are running for any office. Also note that this is not to say that everyone's gain is the same, or even to suggest that everyone gains something. The question about the distribution of gains may also depend on the political parties, but it is beyond the scope of this paper. <sup>9</sup> Hibbes (1987) also provides some empirical evidence on the difference between the two parties. "...the Democratic

<sup>9</sup> Hibbes (1987) also provides some empirical evidence on the difference between the two parties. "...the Democratic administrations typically turned in a real income growth rate that, ..., was about 1.2 points higher than the growth rates achieved by Republican administrations during the postwar period". (p. 268)

<sup>10</sup> The regional rate of growth was calculated for each of the nine regions. For a more detailed discussion of this formula, see Nardinelli, Wallace and Warner (1988).

<sup>11</sup> The number of states in which gubernatorial elections were held: in 1978-36 and two more in 1979, in 1982, 1986, and in 1990-36, in 1994, and in 1996.

<sup>12</sup> No account was taken of the inflation rate at the individual state due to lack of data.

<sup>13</sup> Gilligan and Matsusaka (1995) have been using a similar set political variables.

<sup>&</sup>lt;sup>1</sup> Total government expenditures and spending on specific services.

<sup>&</sup>lt;sup>2</sup> See S. Pelzman's (1987) comments on this point (p. 293).

<sup>&</sup>lt;sup>3</sup> See discussion on this point in Adams-Kenny (1989) and also in S. Pelzman (1987) and Henrick and Garand (1991).

<sup>&</sup>lt;sup>4</sup> Helms (1985) has a detailed discussion on the effect of state government policies on the state economic growth.

<sup>&</sup>lt;sup>6</sup> There are four states in which governors elect for only a two-year term.