

Pick Your Poison: Do Politicians Regulate When They Can't Spend?

Johnson, Noel D and Matthew, Mitchell and Yamarik, Steven

February 2012

Online at https://mpra.ub.uni-muenchen.de/37430/ MPRA Paper No. 37430, posted 18 Mar 2012 13:27 UTC

Pick Your Poison: Do Politicians Regulate When They Can't Spend?*

Noel D. Johnson[†], Matthew Mitchell[‡], and Steven Yamarik[§]

This Version: March 17, 2012

Abstract

We investigate whether laws restricting fiscal policies across U.S. states lead politicians to adopt more partisan regulatory policy instead. We first show that partisan policy outcomes do exist across U.S. states, with Republicans cutting taxes and spending and Democrats raising them. We then demonstrate that these partisan policy outcomes are moderated in states with no-carry restrictions on public deficits. Lastly, we test whether unified Republican or Democratic state governments regulate more when constrained by no-carry restrictions. We find no-carry laws restrict partisan fiscal outcomes but tend to lead to more partisan regulatory outcomes.

Key words: Regulation, Taxation, Local Public Finance, U.S. States, Balanced Budget Rules

JEL classification: H11, H71, D02, K32, L51

^{*}We would like to thank Robert Reed, Marc Law, Courtney LaFountain, Mike Munger, Jason Sorens, Jared Barton, and Mark Koyama for commenting on previous drafts. We also thank seminar participants at INSIE 2011, the University of Lausanne, Hull University, APEE 2011, and the Mercatus Center for all their help and suggestions. Collin Fausnaugh provided able research assistance. All remaining errors are, of course, our own.

[†]Corresponding Author. Assistant Professor. George Mason University, Fairfax, VA. njohnsoL@gmu.edu [‡]Senior Research Fellow. Mercatus Center, Arlington, VA. mmitche3@gmu.edu

[§]Professor. California State University, Long Beach, CA. steve.yamarik@csulb.edu.

1 Introduction

Since the Great Depression, the size of U.S. government has grown consistently. While most focus is traditionally on the expansion of the federal government, Figure 1 illustrates the significant role played by the states in this transformation. The size of state government measured as state expenditures divided by total government expenditures increased from eighteen percent in 1960 to a peak of twenty-nine percent in 2001. Similarly, state expenditures divided by GDP increased from about four percent in 1960 to ten percent in 2009. As is fitting in a federalist economy, much of the growth in the states concerns local public goods such as education, law and order, social transfers (welfare programs), and health expenditures. Voters pay close attention to these programs since they directly affect their lives. Furthermore, there are significant differences in policy preferences between Republicans and Democrats concerning these budget items – of which both voters and politicians are highly conscious. In general, the consensus view is that Republicans favor smaller government (lower taxes and spending), while Democrats prefer a larger role for government (higher taxes and spending).

These observations raise the question: what role does partisanship play in U.S. state fiscal policy making? When a state has either a unified Republican or Democratic government, are fiscal policies different? Recent research has shown that a lack of political competition may, indeed, have deleterious effects on growth (Besley et al., 2010). If so, is it possible to reduce these partisan policy outcomes using laws, such as restrictions on the ability to carry a budget deficit into the next fiscal year? Finally, if such laws do effectively constrain partian fiscal policy choices, do politicians simply appeal to their constituencies through other legislative endeavors, such as regulatory policy? This last point is particularly important since it holds important implications for constitutional design. If we wish to limit government activism

using constitutional constraints, then we would like to know if these constraints simply shift activity from one area of government (fiscal policy) to another (regulatory policy). If they do, then it may be more prudent to pursue alternative policies to limit government.

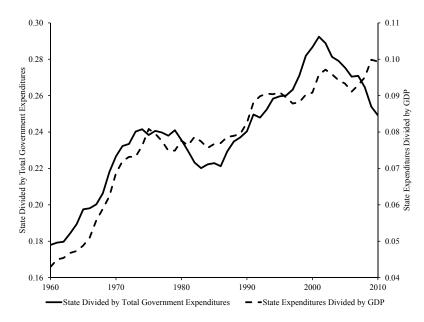


Figure 1: The growth in state and local government, 1960-2010.

We use panel data on U.S. state fiscal and regulatory policies between 1970 and 2010 to answer these questions. We begin by identifying a strong effect of political parties on state policy outcomes. Previous research has found either little effect of unified party control (Gilligan and Matsusaka, 1995; Garand, 1988) or that Democratic control tends to increase taxes and spending (Alt and Lowry, 1994; Reed, 2006). In particular, Reed (2006) estimates that state government is about three to five percent larger after five years of Democratic control of the legislature. We adopt the basic identification strategy of Reed (2006), but unlike his study which focuses on just one dependent variable, "Tax Burden" (the ratio of state and local tax revenues to state personal income) our study looks at five state revenue policies and five expenditure policies. What emerges is a more nuanced picture of party activism. We find ample evidence for policy preferences, especially for the Republicans. When Republicans control both the legislature and governorship, six out of ten fiscal policy variables are significantly affected. We conclude that parties definitely use state fiscal policies to appeal to their voter base.

We next examine whether the partian policy preferences decrease or even disappear in the presence of laws designed to constrain the size of government. We focus on "no-carry" restrictions, which limit the ability of the government to carry a deficit into the next fiscal year. The literature on the effects of these budget rules is large (see Drazen (2004), and Rose (2006), for a review). We find that no-carry budget rules do constrain state partisanship. Republicans in states with no-carry restrictions are unable to cut taxes and spending as much as their fellow party members who face no restrictions. In fact, Republican control is only significant for two fiscal policies under no-carry budget rules. Similarly, Democrats in states with no-carry restrictions are unable to cut law and order and capital expenditures as much as their fellow party members who face no restrictions. But does this mean that politicians in no-carry states turn into statesmen and stop trying to legislate in favor of their voter base?

The final stage of our investigation seeks to answer this question by looking at whether politicians engage in offsetting behavior in the presence of binding budget rules. In particular, we compare the regulatory environment in states with and without no-carry rules, holding constant the amount of unified government. We find that such laws tend to lead to offsetting partisan behavior along the regulatory dimension: when Democrats cannot increase spending, they regulate more and when Republicans cannot cut spending, they regulate less.

Before we present our empirical results, we develop a simple theoretical model of fiscal constraint. We show that if voters view regulatory and fiscal policies as inseparable and if a fiscal constraint binds spending policy to some level between the universal ideal of Republicans and Democrats, then the constraint will result in more-partian regulatory policies.

2 Theoretical Model

Public finance scholars have long recognized the inherent substitutability of fiscal and regulatory policy instruments. As Wagner (1989, 108) has put it, "a central principle of public finance is that any statute or regulation can be translated into a budgetary equivalent." In the simple model that follows, we incorporate voter recognition that fiscal and regulatory policy can be substitutes for one another. We then examine the impact of a fiscal policy constraint, such as a strict balanced budget requirement, on both fiscal and regulatory policy platforms.

There are two separate primary elections (Republican and Democratic) with two candidates in each $(R_1, R_2 \text{ and } D_1, D_2)$. Each primary candidate adopts a platform in a three-policy space which includes positions on government spending (S), taxation (T), and regulation (L). Larger numbers of each value represent more activity along that dimension, i.e., more regulation, more taxation, or more spending. Compared with Democrats, Republicans favor lower levels of spending, taxation and regulation.

We define a three-policy vector as $\mathbf{P} = [S, T, L]'$. Letting the superscript represent the candidate and the subscript represent the voter, the policy platform of candidate C is $\mathbf{P}^{C} = [S^{C}, T^{C}, L^{C}]'$ and the ideal policy vector of voter v is $\hat{\mathbf{P}}_{v} = [\hat{S}_{v}, \hat{T}_{v}, \hat{L}_{v}]'$.

The utility that each voter gets from a candidate's policy platform is a negative function of the distance between the voter's ideal policy vector $\hat{\mathbf{P}}_v$ and the policy platform of the candidate \mathbf{P}^C :

$$U_v^C = distance(\hat{\mathbf{P}}_v - \mathbf{P}^C) \tag{1}$$

We assume that this distance takes a weighted Euclidian distance equal to the following:

$$distance(\hat{\mathbf{P}}_{v} - \mathbf{P}^{C}) = \begin{pmatrix} \alpha(\hat{S}_{v} - S^{C})^{2} + \beta(\hat{T}_{v} - T^{C})^{2} + \gamma(\hat{L}_{v} - L^{C})^{2} \\ + 2\delta(\hat{S}_{v} - S^{C})(\hat{L}_{v} - L^{C}) \\ + 2\lambda(\hat{T}_{v} - T^{C})(\hat{L}_{v} - L^{C}) \\ + 2\mu(\hat{S}_{v} - S^{C})(\hat{T}_{v} - T^{C}) \end{pmatrix}$$
(2)

The parameters α , β and γ are, respectively, the salience terms for spending, taxation, and regulation. By definition they are nonnegative. The parameters δ , λ , and μ are the interaction terms which indicate the voter's conditional preference for one policy based on the value taken by anther policy. If any of these terms equals zero, the value of one policy does not affect the voter's preferences for another and the two issues are said to be separable. In this case, the indifference curves between the issues will be circular. If, on the other hand, any of these terms takes a value other than zero, then the value of one policy changes the voter's preference for the other issue and the issues are not separable. In this case, the indifference curves between the two issues are not separable. In this case, the indifference curves between the two issues will be oblong and tilted. For the sake of simplicity, we assume that spending and taxation are separable so that $\mu = 0.^1$

Assumption 1: We assume that $\delta > 0$ and $\lambda > 0$. This implies negative complementarity between spending and regulation and negative complementarity between taxation and regulation. The idea is that if fiscal and regulatory policy are substitutes for one another, then as the state regulates more, voters will prefer that it tax and spend less. This assumption holds for both Democrats and Republicans.

As a result of Assumption 1 the indifference curves of voters will appear as they do in Figure 2. The tilted indifference curves indicate conditional preferences. In panels A and B, we see that upon the condition of less-than-ideal taxation and spending, Democrats will prefer

¹This assumption does not affect the analysis.

a greater level of regulation. And in panels C and D, we see that upon the condition of greater-than-ideal taxation and spending, Republicans will prefer a lower level of regulation.

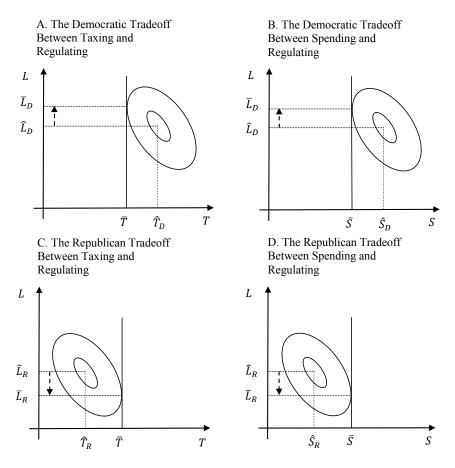


Figure 2: Conditional Preferences with Negative Complementarity

The task of candidate C_1 seeking his partys nomination in the primary is to maximize his expected vote function $EV^{C_1} = \sum_{v=1}^n \pi_v^{C_1}$ where $\pi_v^{C_1}$ is the probability candidate C_1 will win voter v's vote. Following the large literature on probabilistic voting, we assume $\pi_v^{C_1}$ is a smooth, continuous, concave function of the utility that the voter receives from that candidate's platform $U_v^{C_1}$ as well as the utility she would receive from the other primary candidate's platform $U_v^{C_2}$.² Coughlin and Nitzan (1981*a*,*b*) have shown that if individual

²The approach was originally developed by Hinich et al. (1969, 1971) but it has seen many refinements. See the overview by Mueller (2003, 249-254). We have assumed that there are only two candidates in each primary in order to simplify the analysis. Wittman (1984), however, has shown that equilibrium may be obtained in probabilistic vote models with more than two candidates.

probabilities take the form $\pi_v^{C_1} = \frac{U_v^{C_1}}{U_v^{C_1} + U_v^{C_2}}$, then an equilibrium will obtain in which primary candidates will adopt platforms at the peak of their party's aggregate expected vote function. Therefore, if individual primary voters are normally distributed about some point $(\hat{S}_v, \hat{T}_v, \hat{L}_v)$, then the contours of the aggregate expected vote function will follow a pattern similar to the weighted Euclidian distance function of equation 2 above.

Assumption 2: We assume that some institutional constraint such as a "no-carry" requirement pushes taxation up and spending down. Moreover, we assume that taxation is pushed to some level, \overline{T} , which is more than the ideal taxing level of the median Republican voter, but no greater than the ideal taxing level of the median Democratic voter ($\hat{T}_R < \overline{T} < \hat{T}_D$). Similarly, spending is pushed to some level, \overline{S} , which is less than the ideal spending level of the median Democratic voter, but no less than the ideal spending level of the median Republican voter ($\hat{S}_R < \overline{S} < \hat{S}_D$). Since the constraint itself is selected by politicians, our intuition is that they will not adopt a constraint which pushes taxation to a level that is more than even high-tax-preferring Democrats want. Nor will they adopt a constraint which pushes spending below what even low-spending Republicans want.

Under the fiscal constraint, each candidate will no longer be able to position herself at the center of the expected vote function. Instead, she will be bound to the lines traced out by \bar{S} and \bar{T} in Figure 2. Each candidate will therefore select a level of regulation \bar{L}_v that minimizes (2), constrained by \bar{S} and \bar{T} . As a result, the ideal Republican regulatory policy under the constraints \bar{S} and \bar{T} shifts down to \bar{L}_R , while the ideal Democratic regulatory policy under the constraints \bar{S} and \bar{T} shifts up to \bar{L}_D .³

We can also demonstrate this result mathematically. Let the distance between the voter's

³In order to show the effect of the constraints in two dimensions, the two left panels in Figure 2 depict the tradeoff between taxation and regulation, holding spending constant while the right panels show the tradeoff between spending and regulation, holding taxation constant. Obviously, the two effects reinforce one another.

ideal spending level, \hat{S}_v , and the institutional constraint, \bar{S}_v , be $\sigma = \hat{S}_v - \bar{S}_v$. Similarly, let the distance between the voter's ideal tax level, \hat{T}_v , and the institutional constraint, \bar{T}_v , be $\theta = \hat{T}_v - \bar{T}_v$. The "weighted Euclidian distance" functional form under the constraint becomes:

$$distance(\hat{\mathbf{P}}_{v} - \mathbf{P}^{C}) = \begin{pmatrix} \alpha \sigma^{2} + \beta \theta^{2} + \gamma (\hat{L}_{v} - L^{C})^{2} \\ + 2\delta \sigma (\hat{L}_{v} - L^{C}) \\ + 2\lambda \theta (\hat{L}_{v} - L^{C}) \end{pmatrix}$$
(3)

where $\mu = 0$ and the parameters α , β and γ are nonnegative by definition. Assumption 1 implies that $\delta > 0$ and $\lambda > 0$ for both parties. Assumption 2 implies that $\sigma > 0$ and $\theta > 0$ for Democrats and $\sigma < 0$ and $\theta < 0$ for Republicans. Taking the derivative with respect to L^{C} and setting equal to zero, we obtain:

$$L^{C} \equiv \bar{L}^{C} = \frac{\delta\sigma + \lambda\theta}{\gamma} + \hat{L}_{v} \tag{4}$$

From (4) it is clear that Democratic candidates (for whom $\sigma > 0$ and $\theta > 0$) will select a regulatory platform that involves more regulation than otherwise and Republican candidates (for whom $\sigma < 0$ and $\theta < 0$) will select a regulatory platform that involves less regulation than otherwise.

In summary, we have two testable predictions. First, in states where Democrats control the legislative process, a fiscal constraint will induce the adoption of relatively more regulation than otherwise. Second, in states where Republicans control the legislative process, a fiscal constraint will induce the adoption of relatively less regulation. In the next sections, we test these two predictions using U.S. state-level data. We first establish that partian preferences over fiscal policy exist. Then, we exploit the institutional variation across states with

regard to constraints on budget deficits to establish that partian fiscal preferences can be constrained. Finally, we investigate whether unified Democratic or Republican governments in states with binding budget rules pursue more active regulatory policies to offset their inability to affect fiscal policy.

3 Partisan Fiscal Policy Preferences

We use panel data on U.S. state fiscal policy, economic and demographic conditions, and partisan control for 1970 through 2010. Our dependent variables are five measures of state taxation and five measures of state spending. Each dependent variable is measured in \$1,000 per person. The revenue measures are: General Revenue, Total Taxes, Sales Taxes, Personal Income Taxes, and Corporate Income Taxes. The expenditure measures are: General Expenditures, Education Expenditures, Welfare Expenditures, Law & Order Expenditures and Capital Expenditures. Following Bohn and Inman (1996) and Rose (2006), we use the general fund rather than the total budget since it is the principal source of state appropriations and as a result the fund directly constrained by balanced budget requirements.⁴

We measure partian control as Democratic and Republican control of both the legislature and governorship, with the omitted category being split control. Previous work by Alt and Lowry (1994, 2000) has found that partian control of both branches of state government is more strongly correlated with fiscal actions than individual control of each branch. Nebraska is excluded from the data since state legislators do not formally affiliate with parties. We also follow convention and exclude Alaska due to its location and resource-dependence.⁵

We include several variables to control for economic, demographic, fiscal, and political fac-

⁴The general fund is also the part of the budget legislators have the mose discretion over. The total fund includes insurance trust funds, federal funds, public employee retirement funds, and other special funds; while the general fund does not.

⁵See, for example, Shadbegian (1996), Besley and Case (2003), and Primo (2007).

tors. The economic variables are Real Personal Income per Worker, Unemployment Rate, Unionization Rate, Real Wage Rate in Manufacturing, Percent Earnings from Manufacturing, and Percent Earnings from Agriculture. The demographic variables are Percent of Population Female, Percent of Population Black, Percent of Population 0-17 Years Old, Percent of Population 65+ Years Old, and Log Population Density. The fiscal variables are the lags of Budget Deficit and Federal Transfers. The political variables are a dummy for a Lame Duck Governor and indices of Citizen Ideology and Government Ideology. The ideology indices are updated versions of Berry et al. (1998).

There is no one singular budget process for U.S. states. More than half of the states operate on an annual budget cycle where the legislature provides appropriations for one fiscal year. The majority of the remaining states use a biennial budget cycle with a few following a combination of biennial and annual cycles. To complicate matters further, some biennial states have legislatures that meet only on budget years, while others have legislatures that meet every year with the option to revise the current budget. Therefore, to avoid making restrictive and potentially erroneous assumptions concerning the exact timing between legislative actions and fiscal policy measures, we aggregate the annual observations for each state into four-year election cycles.⁶ As a result, the final data set contains 480 observations on forty-eight states over ten election cycles.⁷

Table 1 presents the descriptive statistics for our fiscal policy variables. The means and standard deviations of each variable are shown for the full, Unified Democratic, Unified Republican and Split samples. The fiscal policy variables are measured in terms of \$1,000 dollars per person. Thus, the values of 2.5642 and 2.5217 for general revenue and general

⁶Of the forty-eight states, seven hold elections during the presidential cycle, two hold elections one year after the presidential cycle, thirty-three hold elections two years after the presidential cycle, three hold elections three years after the presidential cycle, and three hold elections every two years.

⁷Law & Order Expenditures and Capital Expenditures are only available at the state level consistently from 1977 onwards. As a result, these regressions contain nine election cycles x forty-eight states = 432 observations.

expenditures for the full sample are interpreted as the average U.S. citizen paid \$2,564 in general revenue (taxes, licenses and fees) and received \$2,522 in state expenditures.

Variable	Full Sample	Unified Democratic	Unified Republican	Split
General Revenue	2.5642	2.1601	2.7507	2.7801
	(1.6804)	(1.5976)	(1.4277)	(1.7773)
Total Taxes	1.3094	1.1385	1.3185	1.4271
	(0.7929)	(0.7504)	(0.6456)	(0.8516)
Sales Taxes	0.6198	0.5583	0.6735	0.6430
	(0.3921)	(0.3768)	(0.3449)	(0.4149)
Ind. Income Taxes	0.3777	0.3237	0.3346	0.4322
	(0.3365)	(0.2983)	(0.2975)	(0.3672)
Corp. Income Taxes	0.0805	0.0695	0.0803	0.0884
	(0.0774)	(0.0602)	(0.0717)	(0.0889)
General Expenditures	2.5217	2.1268	2.7052	2.7321
	(1.6516)	(1.6041)	(1.3759)	(1.7338)
Education Expenditures	0.9158	0.7726	1.0019	0.9846
	(0.5911)	(0.5453)	(0.5363)	(0.6248)
Law & Order Expenditures	0.5781	0.4854	0.5982	0.6361
	(0.4828)	(0.4829)	(0.3728)	(0.5106)
Welfare Expenditures	0.0982	0.0804	0.1063	0.1074
	(0.0743)	(0.0680)	(0.0642)	(0.0798)
Capital Expenditures	0.2255	0.1940	0.2626	0.2333
	(0.1424)	(0.1330)	(0.1468)	(0.1432)
Observations	480	163	87	230

Table 1: Descriptive statistics for fiscal policy variables. Standard deviations in parentheses.Sources: Census Bureau, State Government Finances.

Perhaps the most interesting fact to emerge from Table 1 comes from looking at the means of the policy variables under either unified Democratic or Republican governments. Bluntly stated, in levels, Democratic policy looks very similar to Republican policy and vice versa. General revenue (and all the sub-categories of taxation) are lower in states with unified Democratic governments than in those with unified Republican governments. Likewise, General expenditures and its sub-components are all lower under unified Democratic governments. One possible explanation for this pattern is that Democrats and Republicans do not act in accordance with our priors. Alternatively, a more likely interpretation is that voters elect either Democratic or Republican governments to do exactly what we expect them to do. If voters think that state spending and taxation is too high, they elect Republican politicians whom they expect to shrink the size of government. Likewise, if citizens perceive that state spending is too low on public goods, then they elect Democrats. The key question is not what is the value of the *level* of state policies under different political parties, but what is the subsequent *change* in fiscal policy resulting from the changing partisanship of a state's government.

We examine this change in policy using a difference-in-differences regression. Letting s represent the state and t denote the cycle period, we estimate the following panel regression:

$$\tau_{st} = \alpha + \beta_D Democratic_{st} + \beta_R Republican_{st} + \sum_j \gamma_j State Variable_{j,st} + \delta_s + \lambda_t + \nu_{st} \quad (5)$$

The dependent variable τ_{st} is our fiscal policy measure. $Democratic_{st}$ and $Republican_{st}$ are the percentage of the four-year election cycle with Democratic or Republican control of state government.⁸ The coefficient β_D (β_R) is interpreted as the fiscal policy impact of Democratic (Republican) control of state government relative to the omitted category, split control. $StateVariable_{j,st}$ is a vector of economic, demographic and fiscal controls listed in Appendix A. The next two terms, δ_s and λ_t , are state fixed effects and time fixed effects to control for omitted state factors and the national business cycle, respectively. Lastly, ν_{st} is an i.i.d. error term.

Our hypothesis is that $\beta_D > 0$ and $\beta_R < 0$ for most revenue and expenditure policies. The prediction that Democratic governments will raise revenue and taxes to fund higher spending has found support in the work by Alt and Lowry (1994), Caplan (2001) and Reed (2006). For the revenue sub-categories, we expect that Republicans will want lower tax rates

⁸Although the majority of the values for Democratic and Republican are zero or one, values of 0.25, 0.50, and 0.75 did occur when a party lost its majority in the middle of an election cycle.

relative to split control of government, while Democrats will raise tax rates to fund higher expenditures. The one possible exception is that Democrats may prefer lower sales tax rates for their lower income constituents. For expenditure sub-groups, we expect that Democrats prefer higher spending on education and welfare, while Republicans desire lower spending on these categories. We also expect that Republicans want higher spending on law & order and capital, while Democrats want to lower spending on these items.⁹

Table 2 presents the estimation results of (5) with revenue policies in Panel A and expenditure policies in Panel B. For brevity, we present only the coefficient values and standard errors for the political parameters β_D and β_R . The results are broadly in line with our political preference hypotheses, especially for Republicans. Unified Republican governments lower general revenue and total taxes by \$181 and \$190 per capita on average over the four-year election cycle. In particular, Republicans cut individual income taxes by \$70 per capita over the cycle. For expenditure policy, Republicans cut general spending by \$172 per capita, lower welfare spending by \$73 per capita, but raise capital spending by \$22 per capita. Although not significant at the ten percent level, the coefficient signs for the Unified Democratic government are consistent with the idea that Democratic state governments raise taxes, increase spending on education and welfare, but decrease law & order and capital expenditures.

4 The Effect of No-Carry Laws on Partisan Fiscal Policy

Our next task is to investigate whether the partisan policy preferences can be constrained by political institutions. Previous work on the effect of fiscal rules across the U.S. states tends to focus on the overall effect of the various constraints on budget balance. Notable examples include von Hagen (1991), Bohn and Inman (1996), Poterba (1994), Alt and Lowry (1994),

 $^{^{9}}$ In a related work, Gilligan and Matsusaka (1995) did find evidence that Democratic state governments spend more on public welfare and less on capital expenditures.

Panel A: Revenue Policies								
	(1)	(2)	(3)	(4)	(5)			
VARIABLES	General	Total Tax	Sales Tax	Individual	Corp.			
	Revenue			Income Tax	Income Tax			
Unified Democratic	0.0272	0.0427	-0.0050	0.0340	0.0068			
	(0.0551)	(0.0456)	(0.0321)	(0.0329)	(0.0083)			
Unified Republican	-0.1811**	-0.1895**	-0.0267	-0.0695*	-0.0113			
	(0.0834)	(0.0743)	(0.0385)	(0.0350)	(0.0130)			
01 (400	400	400	120	440			
Observations	480	480	480	420	440			
Number of States	48	48	48	42	44			
Time Period	1970-10	1970-10	1970-10	1970-10	1970-10			
R-squared	0.980	0.944	0.899	0.877	0.595			
Controls	YES	YES	YES	YES	YES			
State Fixed Effects	YES	YES	YES	YES	YES			
Year Fixed Effects	YES	YES	YES	YES	YES			
Panel B: Expenditure Policies								
	(1)	(2)	(3)	(4)	(5)			
VARIABLES	General	Education	Welfare	Law &	Capital			
	Exp.	Exp.	Exp.	Order Exp.	Exp.			
	^		*	· · ·	<u> </u>			
Unified Democratic	0.0026	-0.0218	0.0443	-0.0069	-0.0186			
	(0.0490)	(0.0337)	(0.0324)	(0.0063)	(0.0132)			
Unified Republican	-0.1715*	-0.0818	-0.0725*	0.0061	0.0224*			
	(0.0882)	(0.0527)	(0.0415)	(0.0086)	(0.0119)			
Observations	480	480	480	432	432			
Number of states	48	48	48	48	48			
Time Period	1970-10	1970-10	1970-10	1977-10	1977-10			
R-squared	0.980	0.953	0.958	0.924	0.826			
Controls	YES	YES	YES	YES	YES			
State Fixed Effects	YES	YES	YES	YES	YES			
Year Fixed Effects	YES	YES	YES	YES	YES			

Table 2: Equation (5) is estimated with the fiscal policy listed on top as the dependent variable. The coefficient for Unified party p is β_p . The coefficients for the intercept term, control variables and time dummies are not shown. Robust standard errors are in parentheses. '***', '**' and '*' indicate significance at the one, five and ten percent levels, respectively.

Crain (2003), and Primo (2007). They all generally find that fiscal rules lead to lower deficits and less spending. Bohn and Inman (1996) test the effectiveness of a wide variety of rules with different requirements and enforcement characteristics and find that no-carry provisions are the most effective in generating large general fund surpluses. Since one of our primary interests is the potential offsetting behavior of fiscal constraints rather than the effectiveness of a broad range of rules we follow Rose (2006) in focusing on no-carry rules.

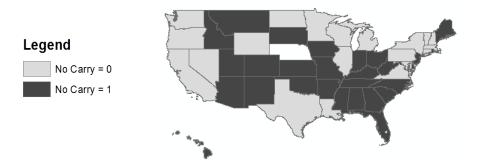


Figure 3: No-Carry and Carry-Over States. Nebraska and Alaska not included as they are excluded from our data.

No-carry rules combine what Bohn and Inman refer to as "proscriptive" rules on the size of the budget, with more stringent "retrospective" rules that prevent a state from "carrying" a deficit into the next fiscal year. At present, twenty-eight states have no-carry rules. Figure 3 shows the distribution of the no-carry and carry-over states. As the map makes clear, there are no obvious patterns in which states have adopted these fiscal restrictions. Rose (2006) argues that these, and most other balanced-budget requirements, are exogenous since their adoption was largely based on historical accident. Indeed, with the exception of Tennessee who adopted their rules in 1977, most states adopted their no-carry restrictions in their original constitutions (Savage, 1990).

We identify the constraining effect of no-carry restrictions on partian governments by adding interaction terms to specification (5). The resulting equation becomes:

$$\tau_{st} = \alpha + \beta_D Democratic_{st} + \beta_R Republican_{st} + \phi_D Democratic_{st} \times NoCarry_s$$
$$\cdots + \beta_R Republican_{st} \times NoCarry_s + \sum_j \gamma_j StateVariable_{j,st} + \delta_s + \lambda_t + \nu_{st}$$
(6)

where $NoCarry_s$ is a dummy variable that is one if a state has a no-carry restriction on its

budget and zero if a state has the ability to carry-over its deficit.¹⁰ The marginal effect of a unified Democratic or Republican government on policy in (6) is

$$\frac{\partial \tau}{\partial Political Party_p} = \beta_p + \phi_p \times NoCarry \tag{7}$$

Where p indexes the party of interest (Democrat or Republican). Using (7), one can see that the marginal effect of a unified government under carry-over provisions is β_p , while the marginal effect of a unified government under no-carry restrictions is $\beta_p + \phi_p$. Brambor and Golder (2006) show that the calculation of both β_p and $\beta_p + \phi_p$; and their standard errors (rather than individually reporting β_p and ϕ_p) is necessary to convey the quantities of interest.

Our particular interest is to see if no-carry restrictions constrain partian fiscal policy. We do so in a series of tests. First, we test if no-carry restrictions reduce partian fiscal policy. Given that we expect $\beta_D > 0$ and $\beta_R < 0$ for both taxing and spending policies, we test $H_0: \beta_D + \phi_D > 0$ and $H_0: \beta_R + \phi_R < 0$ for all policies except law & order and capital expenditures where we test the reverse. Second, we test if no-carry restrictions *eliminate* partian fiscal policy $H_0: \beta_p + \phi_p = 0$.

Tables 3 and 4 present the effects of no-carry restrictions on partial fiscal policy preferences identified earlier. Following our previous discussion, we report the point estimate and standard error of each unified government under carry-over provisions, β_p , and the point estimate and standard error of each unified government under no-carry restrictions, $\beta_p + \phi_p$. We also report the p-value of the one-tailed test that no-carry restrictions reduce partial fiscal policy.

The results show that no-carry restrictions reduce and in the case of expenditures eliminate

¹⁰Because the no-carry restriction is time-invariant, it is absorbed by the state fixed effects and thus not included as a stand-alone term in the fixed-effects specification.

	(1)	(2)	(3)	(4)	(5)
VARIABLES	General	Total Tax	Sales Tax	Individual	Corp.
	Revenue			Income Tax	Income Tax
Unified Democratic	-0.0771	-0.0425	-0.0042	-0.0403	-0.0017
under Carry-over	(0.0766)	(0.0639)	(0.0376)	(0.0532)	(0.0105)
Unified Democratic	0.0741	0.0828	-0.00547	0.0663**	0.0115
under No-Carry	(0.0644)	(0.0548)	(0.0374)	(0.0279)	(0.0089)
Unified Democratic Test	0.046	0.052	0.512	0.009	0.121
Unified Denshlinen	0 22(7*	0 0 2 5 1 * *	0.02(0	0.0005*	0.0024
Unified Republican	-0.2267* (0.1323)	-0.2351**	-0.0269 (0.0506)	-0.0885*	0.0024 (0.0272)
under Carry-over	. ,	(0.1116)	(0.0300)	(0.0471)	(0.0272)
Unified Republican	-0.1303*	-0.1451**	-0.0267	-0.0461	-0.0154
under No-Carry	(0.0756)	(0.0670)	(0.0399)	(0.0346)	(0.0103)
Unified Republican Test	0.780	0.807	0.501	0.877	0.227
Observations	480	480	480	420	440
Number of States	48	48	48	42	44
Time Period	1970-10	1970-10	1970-10	1970-10	1970-10
R-squared	0.980	0.945	0.899	0.881	0.598
Controls	YES	YES	YES	YES	YES
State Fixed Effects	YES	YES	YES	YES	YES
Year Fixed Effects	YES	YES	YES	YES	YES

Table 3: Partisan and No-Carry Impact on Revenue Policies. Equation (6) is estimated with the fiscal policy listed on top as the dependent variable. The coefficient for Unified party punder Carry-over is β_p and the coefficient for Unified party p under No-Carry is $\beta_p + \phi_p$. The Unified Democratic Test is the p-value of a one-tailed test that $H_0: \beta_D + \phi_D > 0$ and the Unified Republican Test is the p-value of a one-tailed test that $H_0: \beta_R + \phi_R < 0$. The coefficients for the intercept term, control variables and time dummies are not shown. Robust standard errors are in parentheses. '***', '**' and '*' indicate significance at the one, five and ten percent levels respectively.

partisan fiscal policy. For revenue policies in Table 3, Republican tax-cutting policies are reduced, but not eliminated by the no-carry restrictions. In particular, the marginal effect of Republican tax cutting are higher (in absolute terms) under carry-over than under no-Carry, but the marginal effects under no-carry are still negative and significant. Democrats, on the other hand, are more likely to raise revenue and taxes in general and individual income taxes in specific under the no-carry rules. However, both Republican and Democratic partisan expenditure preferences are effectively eliminated in Table 4. In each expenditure policy, the marginal effects of each political party under no-carry restrictions are insignificant although some were significant under no-carry provisions and in Table 3.

	(1)	(2)	(3)	(4)	(5)
VARIABLES	General	Education	Welfare	Law &	Capital
	Exp.	Exp.	Exp.	Order Exp.	Exp.
Unified Democratic under Carry-over	-0.0725 (0.0688)	-0.0454 (0.0305)	0.0346 (0.0531)	-0.0181** (0.0070)	-0.0340* (0.0186)
Unified Democratic under No-Carry	0.0373 (0.0617)	-0.0103 (0.0444)	0.0359 (0.0531)	-0.0011 (0.0068)	-0.0107 (0.0146)
Unified Democratic Test	0.104	0.218	0.488	0.994	0.894
Unified Republican under Carry-over	-0.2343* (0.1296)	-0.1066 (0.0776)	-0.0947 (0.0676)	0.0090 (0.0114)	0.0241 (0.0216)
Unified Republican under No-Carry	-0.1209 (0.0818)	-0.0638 (0.0484)	-0.0755 (0.0467)	0.0069 (0.0088)	0.0248 (0.0220)
Unified Republican Test	0.826	0.718	0.662	0.420	0.513
Observations	480	480	480	432	432
Number of states	48	48	48	48	48
Time Period	1970-10	1970-10	1970-10	1977-10	1977-10
R-squared	0.980	0.953	0.948	0.926	0.827
Controls	YES	YES	YES	YES	YES
State Fixed Effects	YES	YES	YES	YES	YES
Year Fixed Effects	YES	YES	YES	YES	YES

Table 4: Partisan and No-Carry Impact on Expenditure Policies. Equation (6) is estimated with the fiscal policy listed on top as the dependent variable. The coefficient for Unified party p under Carry-over is β_p and the coefficient for Unified party p under No-Carry is $\beta_p + \phi_p$. The Unified Democratic Test is the p-value of a one-tailed test that $H_0: \beta_D + \phi_D > 0$ and the Unified Republican Test is the p-value of a one-tailed test that $H_0: \beta_R + \phi_R < 0$. The coefficients for the intercept term, control variables and time dummies are not shown. Robust standard errors are in parentheses. '***', '**' and '*' indicate significance at the one, five and ten percent levels respectively.

5 Partisan Regulatory Policies

The final question we ask is whether constraining politicians from pursuing partian fiscal policies causes them to shift their behavior towards more partian regulatory outcomes. The empirical literature is relatively mute on this question. Nonetheless, most theories of regulation assume that the electorate plays at least some role in pressuring politicians to adopt regulations that conform to their preferences (see, for example, Stigler, 1971; Yandle, 1983; Becker, 1983). Our reasoning is that politicians have only a limited menu of policy instruments with which to convince voters that they are acting in their interests. One important

subset of these instruments is fiscal policy. However, there are plenty of other margins politicians can manipulate to get reelected, such as regulatory policy. Our question boils down to whether – as in the theoretical section above – political actors view regulatory and fiscal policy as substitutable means to achieve public policy goals. To the extent that we clearly identify partisan policy preferences and the effect of no-carry restrictions in constraining fiscal outcomes in the first two sections above, we have a ready-made identification strategy for answering this query.

We investigate the impact of state partial partial on individual regulatory policies. We focus on those policies that are quantifiable, legislated by state government, immune from extensive judicial interpretation, and clearly partisan. We identify four individual labor laws and two individual social laws that meet these criteria. The four state labor laws are the Minimum Wage, Closed Union, Minimum Rest Period and Minimum Meal Period. The Minimum Wage is the minimum wage level passed by each state with the Federal minimum wage being the floor. Closed Union is a dummy variable which is one if a state allows a "closed union shop" and zero if a state prohibits it using a right-to-work law.¹¹ The Minimum Rest Period and Minimum Meal Period are dummy variables indicating whether a state has explicit minimum requirements on paid rest periods and minimum requirements on paid meal periods, respectively. The two social policies are No Fault Divorce and Age Gap Provision. No Fault Divorce is a dummy variable equal to one when the dissolution of marriage in a state does not require showing of wrong-doing of either party or any evidentiary proceedings at all. We use the no-fault legislative dates of Vlosky and Monroe (2002) since they are constructed using an explicit decision rule. The last regulatory policy is state Age Gap Provisions that legalize teen sexual activity as long as they are close-in-age. In particular, the Age Gap Provision is the age span in which someone can legally engage in sexual acts

¹¹Although it is more conventional to record a one for a right-to-work state, we adopt the opposite so that our Closed Union variable has the same direction as the other regulatory measures.

with a minor. For instance, Connecticut has an age of consent of sixteen and an age gap provision of two, which means that a sixteen or seventeen year old can legally engage in a sexual act with a fifteen year old and a fifteen or sixteen year old can legally engage in a sexual act with a fourteen year old.

We use annual panel data from 1970 to 2009 with two exceptions. First, the Minimum Wage panel is for 1985-2009 since Maine was the first state (besides Alaska) to legislate a state minimum wage above the federal level in 1985. Second, the No Fault Divorce sample is for 1970-1989 since Arkansas was the last state to legislate a no-fault law under the criteria of Vlosky and Monroe (2002).

	(1)	(2)	(3)
VARIABLES	Full Sample	No-carry	Carry-Over
Minimum Wage	4.5758	4.6627	4.5137
	(1.1528)	(1.2612)	(1.0651)
Closed Union Shop	0.5892	0.7064	0.5055
	(0.4921)	(0.4557)	(0.5002)
Rest Break	0.1181	0.2179	0.0467
	(0.3228)	(0.4131)	(0.2111)
Meal Break	0.2377	0.3987	0.1227
	(0.4258)	(0.4899)	(0.3283)
No Fault Divorce	0.9033	0.9064	0.9011
	(0.2956)	(0.2914)	(0.2987)
Age Gap Provision	1.2324	0.9192	1.4560
	(1.6620)	(1.4295)	(1.7770)
Unified Democratic	0.3109	0.2603	0.3471
	(0.4630)	(0.4391)	(0.4763)
Unified Republican	0.1554	0.1269	0.1758
	(0.3624)	(0.3331)	(0.3808)
Observations	1,872	780	1,092

Table 5: Descriptive Statistics for Annual Regulation Data. Standard deviations in parentheses. Sources: Effective Minimum Wage: Department of Labor, Wage and Hours Division, Changes in Basic Minimum Wages in Non-Farm Employment Under State Law: Selected Years 1968 to 2011; Right-to-Work: Statistical Abstract of the United States; Rest and Meal Break: U.S. Department of Labor, Wage and Hour Division and state labor departments; No Fault Divorce: Vlosky and Monroe, 2002; Age Gap Provision: Lewin Group, 2004; Statutory Rape: A Guide to State Laws and Reporting Requirements.

Table 5 provides the summary statistics for the full sample, no-carry states, and carry-over states. An important assumption of our identification strategy is that no-carry states look somewhat similar to states without such restrictions. As most states adopted their nocarry restrictions with their original constitutions, there are good reasons to believe their presence should be unrelated to other factors affecting regulatory activity. A joint test of the difference in means between the control group variables for no-carry and carry states confirms this intuition. The null hypothesis of a difference in means between groups of states is rejected at the ten percent level.

We estimate the effects of partisanship on regulation in (8) and the possible enhancing effect of no-carry restrictions on regulation in (9):

$$r_{st} = \alpha + \beta_D Democratic_{st} + \beta_R Republican_{st} + \sum_j \gamma_j State Variable_{j,st} + \lambda_t + \nu_{st}$$
(8)

$$r_{st} = \alpha + \beta_D Democratic_{st} + \beta_R Republican_{st} + \phi_D Democratic_{st} \times NoCarry_s$$
$$\dots + \beta_R Republican_{st} \times NoCarry_s + \mu NoCarry_s + \sum_j \gamma_j StateVariable_{j,st} + \lambda_t + \nu_{st} \quad (9)$$

The regulation variable r_{st} is dichotomous with the exception of the Minimum Wage. Since these dichotomous variables change at most once, state fixed effects cannot be included.¹² Otherwise, the right-hand side variables in (8) and (9) are the same as in specifications (5) and (6). The marginal effects in (9) are the same as before with the effect of a unified government under carry-over provisions equal to β_p and the effect of a unified government under no-carry restrictions equal to $\beta_p + \phi_p$.

What is different is our hypothesis on the relationship of these marginal effects in (9). Our election model in section II predicts that state governments constrained by fiscal rules

¹²We do however include a set of regional dummy variables.

will substitute out of fiscal policy and into regulatory policy to meet voter preferences. Therefore, we expect that Democratic state governments under no-carry restrictions to add more regulation than Democrats under carry-over provisions $H_0: \beta_D + \phi_D > 0$. Likewise, we expect that Republican state governments under no-carry restrictions to reduce more regulation than Republicans without those restrictions $H_0: \beta_R + \phi_R < 0$. We test each hypothesis using a one-tailed test.

Table 6 presents the impact of party control on individual regulatory policies. The results support our prior that Democrats prefer more regulation while Republicans prefer less regulation. Among Democrats, five of the six regulations have the expected positive sign and are statistically significant. Among Republicans, all six regulations have the expected negative sign although only two are statistically significant.

Table 7 presents the effect of no-carry restrictions on individual regulatory policies. As before, we report the point estimate and standard error of each unified government under carry-over provisions, β_p , and under no-carry restrictions, $\beta_p + \phi_p$ plus the *p*-value of the one-tailed test that no-carry restrictions enhance partian regulatory policy.

The results show evidence that under fiscal rules state governments substitute into regulatory policy to meet their partisan objectives. We expect different point estimates under no-carry states and carry-over states. In particular, we expect the point estimates to be larger and more significant in Democratic no-carry states compared with Democratic carry-over states. And we expect the point estimates to be more negative and more significant in Republican no-carry states compared with Republican carry-over states. In most instances, we fail to reject the null that Democrats under no-carry restrictions add more regulation and that Republicans under no-carry rules reduce more regulation relative to their counterparts under carry-over provisions. In particular, Democratic state governments pursue a higher minimum wage, explicit minimum rest periods and no fault divorce legislation when constrained by

	(1)	(2)	(3)	(4)	(5)	(6)
VARIABLES	Minimum	Closed	Rest	Meal	No Fault	Age Gap
	Wage	Union	Break	Break	Divorce	Provision
Unified Democratic	0.1320**	1.3233***	0.5542**	-0.1439	0.8718**	0.3887*
	(0.0559)	(0.2935)	(0.2733)	(0.3166)	(0.3896)	(0.2024)
Unified Republican	-0.0331	-1.2484***	-1.6905**	-0.3763	-0.2346	-0.1154
onned Republican	(0.0620)	(0.3975)	(0.8039)	(0.3556)	(0.4722)	(0.2271)
Estimator	FE	Probit	Probit	Probit	Probit	Ordered Probit
Observations	1,152	1,872	1,872	1,824	864	1,872
Number of states	48	48	48	48	48	48
Time Period	1985-09	1970-09	1970-09	1970-09	1970-89	1970-09
Controls	YES	YES	YES	YES	YES	YES
Cross-Sectional Fixed Effects	State	Region	Region	Region	Region	Region
Year Fixed Effects	YES	YĔS	YES	YES	YES	YES

Table 6: Partisan Impacts on Individual Regulations. Equation (8) is estimated with the regulatory policy listed on top as the dependent variable using the estimator indicated. The coefficient for Unified party p is β_p . The coefficients for the intercept term, control variables and time dummies are not shown. Robust standard errors are in parentheses. '***', '**' and '*' indicate significance at the one, five and ten percent levels respectively.

fiscal rules (their support for a closed union shop is strong under both no-carry and carry-over provisions). In contrast, Republican state governments oppose closed union shops, explicit minimum meal periods and age gap provisions when constrained by fiscal rules.

6 Conclusion

We begin by presenting a simple theoretical model in which voters view fiscal and regulatory instruments as substitutable means to achieving the ends of government policy. We show that, in the presence of a fiscal constraint that binds the parties to fiscal policies that are different than those they prefer, the parties adopt more partian regulatory positions. Democrats adopt platforms that call for more regulation while Republicans adopt platforms that call for less regulation.

We then run a series of statistical tests to examine the validity of this story. In the first set of

	(1)	(2)	(3)	(4)	(5)	(6)
VARIABLES	Minimum	Closed	Rest	Meal	No Fault	Age Gap
	Wage	Union	Break	Break	Divorce	Provision
Unified Democratic	0.1283*	1.3642***	0.2224	-0.3880	0.1221	0.7975***
under Carry-over	(0.0764)	(0.4689)	(0.1790)	(0.3437)	(0.5277)	(0.2953)
Unified Democratic	0.1350**	1.3343***	1.1720***	0.1722	1.3700***	0.1907
under No-Carry	(0.0672)	(0.3114)	(0.4224)	(0.4425)	(0.3887)	(0.2233)
Unified Democratic Test	0.530	0.476	0.998	0.897	0.991	0.026
Unified Republican	0.0070	-0.9244**	-1.3481**	-0.0400	-0.3972	0.0268
under Carry-over	(0.0959)	(0.3825)	(0.6616)	(0.4375)	(0.6158)	(0.3379)
Unified Republican	-0.0580	-1.3802***	-0.8732	-1.1611**	-0.0987	-0.3184
under No-Ĉarry	(0.0675)	(0.4195)	(1.1577)	(0.5653)	(0.6146)	(0.2684)
Unified Republican Test	0.738	0.895	0.350	0.950	0.363	0.822
Estimator	FE	Probit	Probit	Probit	Probit	Ordered Probit
Observations	1,152	1,872	1,872	1,824	864	1,872
Number of states	48	48	48	48	48	48
Time Period	1985-09	1970-09	1970-09	1970-09	1970-89	1970-09
Controls	YES	YES	YES	YES	YES	YES
Cross-Sectional Fixed Effects	State	Region	Region	Region	Region	Region
Year Fixed Effects	YES	YES	YES	YES	YES	YES

Table 7: Partisan and No-Carry Impact on Individual Regulations. Equation (9) is estimated with the regulatory policy listed on top as the dependent variable using the estimator indicated. The coefficient for Unified party p under Carry-over is β_p and the coefficient for Unified party p under No-Carry is $\beta_p + \phi_p$. The Unified Democratic Test is the p-value of a one-tailed test that $H_0: \beta_D + \phi_D > 0$ and the Unified Republican Test is the p-value of a one-tailed test that $H_0: \beta_R + \phi_R < 0$. The coefficients for the intercept term, control variables and time dummies are not shown. Robust standard errors are in parentheses. '***', '**' and '*' indicate significance at the one, five and ten percent levels respectively.

tests, we find strong support for partian policy preferences. We contribute to the literature that studies the role of political parties in government by looking at a broader range of policies than previous studies. This allows us to confirm that parties do indeed matter for fiscal policy. We find that Republicans do generally support budgets that decrease the size of government, whereas Democrats favor higher taxes and spending. Furthermore, to the extent that unified Republican governments appear to be elected in states with higher spending and taxes and vice versa for Democrats, voters expect the parties to purse these policies. Our second contribution is to show that no-carry restrictions do constrain partian policy preferences. This is consistent with previous literature, though we contribute to the literature by showing this for a broader set of policies than previous researchers.

Our most intriguing result is that politicians in those states bound by fiscal policy rules will instead substitute into regulatory efforts. We show that Democrats will pursue a higher minimum wage, explicit minimum rest periods and no fault divorce legislation. By contrast, Republicans who are constrained from pursuing their preferred set of fiscal policies tend to oppose closed union shops, explicit minimum meal periods and age gap provisions more than their unconstrained colleagues.

Our results suggest political actors use whatever policy instruments are available to them to achieve their ends. If they are constrained along one dimension, they substitute into morepartisan activities along the other dimension. If there is one over-arching message to our findings, it is that voters "get what they ask for," and this holds true even if they attempt to bind themselves using constitutional rules. Politicians will find a way to play politics, often in unintended ways.

References

- Alt, J. E. and R. C. Lowry (1994), 'Divided government, fiscal institutions, and budget deficits: Evidence from the states', *The American Political Science Review* 88(4), 811–828.
- Alt, J. E. and R. C. Lowry (2000), 'A dynamic model of state budget outcomes under divided partial government', *The Journal of Politics* **62**(4), 1035–1069.
- Becker, G. S. (1983), 'A theory of competition among pressure groups for political influence', *The Quarterly Journal of Economics* **98**(3), 371–400.
- Berry, W. D., E. J. Ringquist, R. C. Fording and R. L. Hanson (1998), 'Measuring citizen and government ideology in the american states, 1960-93', American Journal of Political Science

42(1), 327-348.

- Besley, T and A Case (2003), 'Political institutions and policy choices: Evidence from the United States', *Journal of Economic Literature* **41**(1), 7–73.
- Besley, T., T. Persson and D. M. Sturm (2010), 'Political competition, policy and growth: Theory and evidence from the u.s.', *Review of Economic Studies* **77**(4), 1329–1352.
- Bohn, H. and R. P. Inman (1996), Balanced budget rules and public deficits: Evidence from the u.s. states, NBER Working Papers 5533, National Bureau of Economic Research, Inc.
- Brambor, T., W. R. Clark and M. Golder (2006), 'Understanding interaction models: Improving empirical analyses', *Political Analysis* 14(1), 63–82.
- Caplan, B. (2001), 'Has leviathan been bound? a theory of imperfectly constrained government with evidence from the states', *Southern Economic Journal* **67**(4), 825–847.
- Coughlin, P. and S. Nitzan (1981*a*), 'Directional and local electoral equilibria with probabilistic voting', *Journal of Economic Theory* **24**(2), 226–239.
- Coughlin, P. and S. Nitzan (1981b), 'Electoral outcomes with probabilistic voting and nash social welfare maxima', *Journal of Public Economics* **15**(1), 113–122.
- Crain, M. (2003), Volatile States: Institutions, Policy, and the Performance of American State Economies, University of Michigan Press, Ann Arbor, MI.
- Drazen, A (2004), Fiscal rules from a political economy perspective, *in* 'Rules-Based Fiscal Policy in Emerging Markets: Background, Analysis and Prospects', Palgrave Macmillan, New York.
- Garand, J. C. (1988), 'Explaining government growth in the u.s. states', American Political Science Review 82(3), 837–849.
- Gilligan, T. W. and J. G. Matsusaka (1995), 'Deviations from constituent interests: The role of legislative structure and political parties in the states', *Economic Inquiry* **33**(3), 383–401.
- Hinich, M. J., and P. Ordeshook (1969), 'Abstentions and equilibrium in the electoral process', *Public Choice* 7(3), 81–106.
- Hinich, M. J., and P. Ordeshook (1971), 'Social welfare and electoral competition in democratic societies', *Public Choice* 11(3), 73–87.

- Mueller, D. C. (2003), *Public Choice III*, Cambridge University Press, Cambridge.
- Poterba, J. M. (1994), 'State responses to fiscal crises: The effects of budgetary institutions and politics', The Journal of Political Economy 102(4), 799–821.
- Primo, D. (2007), Rules and Restraint: Government Spending and the Design of Institutions, University of Chicago Press, Chicago, IL.
- Reed, W. R. (2006), 'Democrats, republicans, and taxes: Evidence that political parties matter', Journal of Public Economics 90(4-5), 725–750.
- Rose, S. (2006), 'Do fiscal rules dampen the political business cycle?', *Public Choice* **128**(3/4), 407–431.
- Savage, J. D. (1990), Balanced Budgets and American Politics, Cornell University Press.
- Shadbegian, R. (1996), 'Do tax and expenditure limitations affect the size and growth of state government?', *Contemporary Economic Policy* 14(1), 22–35.
- Stigler, G. J. (1971), 'The theory of economic regulation', The Bell Journal of Economics and Management Science 2(1), 3–21.
- Vlosky, D.A. and P. A. Monroe (2002), 'The effective dates of no-fault divorce laws in the 50 states', Family Relations 51(4), 317–24.
- von Hagen, J. (1991), 'A note on the empirical effectiveness of formal fiscal restraints', Journal of Public Economics 44(2), 199–210.
- Wagner, R. E. (1989), To Promote the General Welfare, The Pacific Institute, San Francisco.
- Wittman, D. (1984), 'Multi-candidate equilibria', Public Choice 43(3), 287–291.
- Yandle, B. (1983), 'Bootleggers and baptists the education of a regulatory economist', *Regulation* 7(3), p.12.

Appendices

Variable	Full Sample	Unified Democratic	Unified Republican	Split
Log of Real Income per Worker	10.4159 (0.1340)	10.3957 (0.1406)	10.4164 (0.1184)	10.4300 (0.1335)
Unemployment Rate	5.9371	6.3712	5.0509	5.9647
	(1.7568)	(1.7210)	(1.5347)	(1.7444)
Unionization Rate	16.0460	16.7776	13.7296	16.4038
	(7.9020)	(7.7840)	(8.3936)	(7.6642)
Real Wage Rate	8.4260	8.2593	8.3523	8.5719
	(1.0989)	(1.1001)	(1.0936)	(1.0852)
Percent in Manufacturing	0.1328	0.1358	0.1258	0.1332
	(0.0647)	(0.0631)	(0.0709)	(0.0635)
Percent in Agriculture	0.0037	0.0036	0.0036	0.0037
	(0.0020)	(0.0018)	(0.0020)	(0.0022)
Percent Female	0.5101	0.5117	0.5075	0.5099
	(0.0076)	(0.0080)	(0.0064)	(0.0074)
Percent Black	0.0990	0.1273	0.0618	0.0929
	(0.0938)	(0.1027)	(0.0734)	(0.0883)
Percent 0-17 Years Old	0.2736	0.2767	0.2764	0.2703
	(0.0347)	(0.0359)	(0.0353)	(0.0334)
Percent 65+ Years Old	0.1198	0.1170	0.1220	0.1209
	(0.0199)	(0.0215)	(0.0213)	(0.0181)
Log of Population Density	4.4039	4.6587	3.9964	4.3775
	(1.3057)	(1.1860)	(1.4114)	(1.3088)
Budget Deficit (lagged)	-0.0597	-0.0354	-0.0352	-0.0862
	(0.4237)	(0.1128)	(0.1389)	(0.5983)
Federal Transfers (lagged)	0.6759	0.5447	0.7725	0.7323
	(0.5427)	(0.4807)	(0.4755)	(0.5906)
Lame Duck Governor	0.2828	0.3221	0.2672	0.2609
	(0.4446)	(0.4629)	(0.4393)	(0.4332)
Citizen Ideology	48.9885	48.8010	45.8480	50.3094
	(15.5677)	(17.8940)	(10.8086)	(15.1993)
Government Ideology	52.9566	63.5169	35.6379	52.0235
	(11.9831)	(6.2756)	(7.8134)	(7.4410)
Observations	480	163	87	230

Appendix A: Descriptive statistics for control variables. Standard deviations in parentheses. Sources: Log Real Income per Worker: BEA Regional Economic Accounts; Unemployment rate: BLS Local Area Unemployment Statistics; Unionization rate: Hirsch and Macpherson, Unionstat.com for 1983-2010 and past issues of BNA Union Membership and Earnings Data Book; Real Wage Rate: BLS State and Metro Area Employment, Hours, Earnings; Percent in Manufacturing and in Agriculture: BEA Regional Economic Accounts; Percent Female, Black, 0-17 and 65+: Census Population Estimates by State; Log of Population Density: Census Population Estimates by State; Budget Deficit and Federal Transfers: Census Bureau State Government Finances; Lame Duck Governor: National Conference of State Legislators State and Legislative Partisan Composition and Statistical Abstract of the United States; Citizen and Government Ideology: Berry et al., 1998 updates.