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Budget Process and Spending Growth

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I. Introduction

Wide-ranging criticism of the federal budget process has fueled interest in the way state governments organize their fiscal affairs. In contrast to the federal government and the budgetary problems it is encountering, the states are getting along comparatively well. For example, in fiscal year (FY) 1986 the states had an aggregate surplus of $60 billion on a spending base of $424 billion, while the federal government ran a deficit of $221 billion on a spending base of $990 billion.1 State governments also usually complete their budgets within a relatively short time frame and on time. This contrasts mightily with the record of the federal government. Congress has completed action on the budget by the beginning of the fiscal year in only two of the fourteen years since the passage of the Congressional Budget and Impoundment Control Act of 1974,2 even though the President has submitted his budget on average almost eight months earlier.3

Obviously, dozens of factors come into play to account for the different performances of the states and the federal government:

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3. See H. SHUMAN, supra note 1, at 274.
differences in scope ascribed by the Constitution (specifically, states have no direct national defense or foreign policy functions); evolution (education, for example, is a much more important function at the state and local levels than at the federal level); and last, but not least, relative size (the average state budget was less than one percent of the federal budget in FY 1986). Nonetheless, budgetmaking at both the state and federal levels is subject to the same kinds of influences: constant demands from constituents for more services and resistance to further claims on constituents' resources. In this Essay, we take the influences of various pressures on decisionmakers as given and focus instead on the rules that constitute the budget process. Our objective is to identify the extent to which these rules alone influence fiscal outcomes.

Shaped by a century of presidential appeals for an item veto of appropriations measures and, more recently, for a balanced budget amendment to the Constitution, much of the debate about budget process reform at the federal level has concentrated on these two proposals. Empirical studies of state budget practices focusing on these same proposals have been mixed and inconclusive, particularly regarding the item veto. For this reason among others, progress on reforming the federal budget process is at a stalemate.

Although we do address the item veto and the balanced budget requirements, we broaden the analysis to address other aspects of the budget process that might affect fiscal outcomes. We first note, in particular, that key differences in budgetary practices across the states have gone largely unexplored. In effect, a rich array of insti-

4. Dividing the aggregate state spending base for FY 1986, $424 billion, by the number of states, 50, reveals an average state budget of approximately $8.5 billion. This figure is less than one percent of the federal spending base for FY 1986, $990 billion. See supra text accompanying note 1.


tutional differences simply have been dumped into a pound of *ceteris paribus*.

A second element we bring to the budget process debate is the interdependence of institutions: Several previous papers approach studying the budget process from the perspective that institutions matter—a perspective we share. Absent from the budget process literature, however, is a recognition that relations among institutions matter. For example, in states in which the legislature characteristically accepts or rejects the budget submitted by the governor, an item veto would be superfluous. Or, consider a state in which its constitution requires a balanced budget: An item veto there would have less impact, everything else being equal, than in a state that had no such requirement. We discuss other cases of interdependence in more detail below. In keeping with current attention to budget process reform as a means of controlling spending, we adopt spending as the fiscal outcome to be explained. Our purpose then is to analyze the effect of budget rules on politicians' proclivity to spend more or less money at the margin. Our data on state budgeting covers the period 1979 through 1986, reflecting the most recent available for complete biennial budget cycles. Based on our analysis of this data, we make projections about the likely influence that alternative budget practices might have on the growth of the United States' budget, bearing in mind the inherent limitations of such extrapolations.

The remainder of the paper is organized as follows: Section II presents a broad overview of state and federal budgetmaking processes. The main purpose is to highlight several key rules and practices that differ among states, as well as with the federal budget process. As we stressed above, our objective is to cover new ground and not merely to retrace familiar territory. Beyond the item veto and balanced budget requirements, the proposals we analyze are: (a) the use of an omnibus (or a single, "catch-all")

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8. See infra pp. 1041-44.
budget bill to fund all programs, in contrast to multiple budget bills that separately fund programs; (b) the degrees of specificity that a legislature may use in writing the budget document; (c) the inclusion of non-appropriated funds in the budget (funds such as "entitlements" and other mandatory spending programs not subject to periodic legislative determination); (d) super-majority voting requirements to increase taxes; and (e) whether a legislature prepares its own budget, distinct from the budget the governor submits.

In Section III, we develop an empirical model. The general idea is to estimate the impact of budget process rules and the interdependence among them, such as those outlined above, on state spending growth. We present results from the empirical estimation in Section IV. Finally, Section V draws conclusions about the probable effects of budget process reform on the growth of federal spending.

II. Overview of the Budget Process

The process used by state governments and the federal government to enact budgets is relatively easy to describe generally, yet next to impossible to describe precisely. Our overview is therefore a necessarily stylized construction, not intended to apply to any exact case.9

Budget bills follow the same path through the legislative and executive branches as all measures that get signed into law. Legislators introduce formal proposals; hearings and debates are held on the proposals; votes are taken in committee and on the floor; passage is determined by simple majority vote in both legislative chambers; and then bills are sent to the chief executive for consideration. At the last stage, as with other types of legislation, budget

bills can become law in two ways: The chief executive either "signs" the bill into law or, if he refuses, the bill can become law with the approval of a super-majority vote of both houses of the legislature.

Two peculiar characteristics of budget bills need to be stressed. First, unlike normal legislative initiatives, legislatures must enact budget bills to fund essential government services. Put differently, high costs are associated with inaction, because failure to enact budget bills means a discontinuation of government operations. Second, budget legislation is mostly periodic; the federal government and three-fifths of the states enact annual budgets, whereas the remaining states budget biennially. Increasingly, legislators have removed some parts of the national and state budgets from the annual or biennial budget process and treated them as "permanent" appropriations. We will discuss this distinction in more detail below.10

In general, the repetitive nature of budget legislation, combined with the relative imperative that it be approved, means that some specialized procedures and institutions will emerge that apply solely to budgetmaking. In this sense there is a "budget process," as distinguished from a "legislative process."

Within this broad framework for how budgets move through the political system in the United States, there are key institutional divergences. Our analysis focuses on seven specific elements of budget processes, each of which is discussed separately below.11

A. Single versus Multiple Budget Bills

In FY 1987 and FY 1988, all United States Government programs subject to annual congressional appropriations received funding in a single legislative measure called a long term continuing resolution.12 Continuing resolutions have become a fact of life

10. See infra Section IIC and text accompanying notes 49-50.
11. See infra notes 12-42 and accompanying text.
12. For histories of the distinction between the use of continuing resolutions and the use of regular appropriations bills in the federal budget, see COMMITTEE ON THE BUDGET, U.S. HOUSE OF REPRESENTATIVES, supra note 9, at 33-39; R. KEITH, AN OVERVIEW OF THE USE OF CONTINUING APPROPRIATIONS (Cong. Res. Serv. 1980).
in the federal budget process,\textsuperscript{13} although Congress did not lay out this practice for itself in 1974. In the Budget Act,\textsuperscript{14} Congress agreed to divide appropriations into thirteen separate bills and to enact all of them by the beginning of the fiscal year (October 1).\textsuperscript{15} Yet only twice—in FY 1976 and FY 1989—did Congress meet these conditions.\textsuperscript{16}

About half of the states follow the practice of enacting single or “catch-all” budget measures, as opposed to enacting multiple budget measures. Not including supplemental appropriation bills or tax measures, the average state divides its budget into thirty separate bills, which are enacted in each cycle.\textsuperscript{17}

The single bill approach to federal budgeting has been roundly criticized and is often cited as proof that the federal budget process has broken down.\textsuperscript{18} The connection between single or multiple bills and budget choices may not be so obvious, however. Why should dividing the budget into separate bills make any difference? Consider two hypothetical states with identical budget processes, except that State A enacts a single budget bill and State B enacts ten bills (that is, the average budget bill in State B contains one-tenth the funds contained in State A’s solo bill). Why would legislators behave differently in these two states?

Suppose a legislator is making up his mind about whether to support or oppose a given budget bill—a basic benefit-cost calculation. Given the imperative for some action on the budget, a legislator’s willingness to accept an objectionable provision in a bill is

\textsuperscript{15} See id. § 300 (codified as amended at 2 U.S.C. § 631 (1988)).
\textsuperscript{16} Information obtained from U.S. Office of Management and Budget, Budget Review Division. In the case of FY 1989, Congress passed the bills during the 24th hour of the final day of the preceding fiscal year, giving the President virtually no time to review the bill before the new fiscal year began.
\textsuperscript{17} See \textit{National Conference of State Legislatures}, \textit{supra} note 9, at 7, 49-50.
\textsuperscript{18} See, e.g., 135 CONG. REC. E3324 (daily ed. Oct. 5, 1989) (statement of Rep. Early): We should not append a myriad of unrelated, substantive legislative issues to a budget reconciliation bill, thereby compelling members to vote “yea” or “nay” in a single bill to an irrational grouping of unrelated, but important legislative issues, some of which they may agree with and some of which they may disagree with.
directly related to the size of the bill. That is, if the same objectionable provision were included in a proposal made in States A and B, the outcome would be different, even though legislators in both states run through exactly the same decision calculus. Because the total benefits in State A’s bill are ten times the amount in State B’s bill (in other words, the stakes are much higher in voting on State A’s bill), the chances that the objectionable provision would result in defeat of the bill are lower in A than in B. The legislator is less likely to object to the entire package in State A’s bill. In State B, an objection is more likely on any given bill because the total amount contained per bill is smaller. Generally, objectionable provisions making it through the budget process should increase as the number of budget bills declines.

B. Specificity of Budget Document Format

The second element of budgetmaking we address concerns legislators’ ability to use the budget document to control specific government activities. The conceptual issue concerns legislative branch control over the activities of government bureaus and agencies, activities that nominally fall under the jurisdiction of the executive branch. More detailed budget formats are expected to provide greater legislative control over spending than less detailed formats. If legislators can include specific language in the budget document stating how funds will be spent, they reduce the discretion available to the executive branch.

In other words, how specific the legislature can be when it enacts the budget document affects the relative power over the distribution of the public purse. As legislators obtain greater control over government programs and agency functions relative to other agents, they reap a greater “return” for each dollar they appropriate. Consider the opposite case—one in which the spending details cannot be included in the budget document with an adequate degree of specificity. Legislators in this budget world are less certain that funds, once appropriated, will be spent in the way they intended. Under the latter arrangement, legislators have difficulty micro-managing programs according to their own preferences, and this should reduce their incentive to appropriate funds. Everything else being equal, then, we would generally expect greater spending
in states in which legislators have more control over how appropriations are spent.

C. Non-Appropriated Funds in the Budget

A total of twenty-one states require all funds to be appropriated periodically.\textsuperscript{19} The budgets of the other twenty-nine states and the federal government include entitlements and other mandatory spending obligations, as well as earmarked or dedicated funds, that are written into substantive law and exempted from the periodic appropriations process.\textsuperscript{20} In the federal budget, programs that are outside the annual appropriations process (sometimes called “uncontrollables”) now account for fifty-five percent of total spending, not including interest payments on the national debt.\textsuperscript{21}

The difference between appropriated and non-appropriated spending is that the former will terminate unless the legislature enacts the budget, whereas the latter continues unless the legislature takes some action to stop it. Once removed from the annual control of the budget review process, non-appropriated or entitlement programs have a tendency to become durable. Moreover, the presence of non-appropriated accounts gives legislators an option to fund programs through the “back door” by converting such accounts into entitlements. The effect of this practice of non-appropriated funding is that permanent law and budget measures become substitutes. More generally, non-appropriated funding erodes the distinction between the regular legislative process and the budget process. Because entitlement legislation usually establishes spending commitments for the indefinite future, knowledgeable and highly organized interest groups tend to exert greater pressure than in the case of annual or biennial appropriations. Thus, we expect the practice of non-appropriated funding to lead to greater spending growth than when all funding requires annual or biennial legislative action.

\textsuperscript{19} See National Association of State Budget Officers, \textit{supra} note 9, at 4.
\textsuperscript{20} See id.
\textsuperscript{21} For an explanation of uncontrollable spending, see L. LeLoup, \textit{supra} note 9, at 70-75.
D. Super-Majority Requirement for Tax Increases

Seven states require approval of tax proposals by a super-majority vote in the legislature. In the remaining forty-three states, tax legislation, like other, normal legislative business, requires only a simple majority to pass. What impact, if any, does this super-majority requirement have on state fiscal affairs?

A spate of empirical studies are based on federal and state data regarding the so-called tax-and-spend hypothesis. According to this hypothesis, the amount of revenue available to politicians resembles a budget constraint, and when this constraint shifts, government spending consequently changes. The recent results using causation tests generally support the claim that revenues (taxes) "cause" spending. Some of the studies suggest that the causation is bi-directional—that spending causes taxing and vice-versa. In either event, a super-majority requirement for raising taxes makes the generation of additional revenues more costly for legislators, which in turn may restrain the growth of spending.

E. Constitutional Balanced Budget Requirements

Twenty-five states have requirements for balanced state budgets. These provisions are analogous to the proposed amendment to the United States Constitution to require a balanced federal budget. All states except Vermont have either a statutory or constitutional requirement for a balanced budget. In some states the statutory requirement is not stringent—requiring, for example,

23. See id.
26. See id. at 40-41.
only the submission of a balanced budget and not the enactment of one. The previous empirical evidence from the states on this issue is that statutory requirements do not restrict per se the growth of state government spending. Legislator-made limits are not binding. Constitutional requirements for balanced budgets, however, appear more difficult to bypass and seem to result in lower levels of government spending.27 In any event, a balanced budget requirement removes debt as a means of financing increased spending, raising the cost of spending. We also would expect it to restrain the growth of spending.

F. The Item Veto

A basic institutional difference between the legislative branch and the executive branch lies at the heart of the item veto controversy. After all, if no institutional differences existed, only random variations would occur in the policy disagreements between the two branches. Questions about the balance of executive versus legislative power in the political process would be irrelevant.28

Geographic versus at-large representation is the relevant institutional difference between the two branches. Pulled by local geographic constituencies, legislators are inclined toward policy choices different than a chief executive serving the electorate at-large. An elected politician’s benefit-cost calculus for appraising government programs is simply not the same under the two institutional settings. The chief executive necessarily considers the interests of a larger and more diverse group than a legislator when taking positions on budgetary matters. Legislatures, on the other hand, are institutions conducive to vote trading and log rolling activities. Because proposals require a majority coalition for enact-

28. Professor Douglas Holtz-Eakin makes this point but on different conceptual grounds. See D. Holtz-Eakin, The Line-Item Veto and Public Sector Budgets: Evidence from the States (Nat’l Bureau of Econ. Res. March 1988). Outcomes in the legislature are determined “by the median point in the distribution of median voters across the jurisdictions. The governor, in contrast, will reflect the tastes of the median voter in the statewide distribution of all voters.” Id. at 8. These two favored positions will not coincide necessarily. See also the surveys of the item veto controversy in STAFF OF HOUSE COMM. ON RULES, 99TH CONG., 2D SESS., ITEM VETO: STATE EXPERIENCE AND ITS APPLICATION TO THE FEDERAL SITUATION (Comm. Print 1986) [hereinafter HOUSE COMM. ON RULES]; R. Moe, supra note 7.
ment, legislators engage in cooperative legislative transactions to further their individual policy agendas. The offshoot of these legislative exchanges and bargains is that aggregate spending levels tend to be larger than they would be otherwise.  

For these institutional reasons, the executive and legislative branches will tend to favor different spending proposals and reach different outcomes on preferred spending totals. These policy differences create a generally desirable tension because each branch becomes a check on the other's political power. Disagreements arise as to which branch—the executive or the legislative—is more powerful in the budget process. Commentators generally agree that the item veto weighs in on the side of executive branch power.  

The relevant issue is whether this executive branch authority makes any difference in restraining the legislature's proclivity to engage in pork barrel spending. Item veto supporters argue, ironically, that the regular veto power is "too powerful" an instrument to be effective in discouraging pork barrel activities. In a single appropriations bill, for example, legislators can bundle expenditures that are unacceptable to the chief executive with those he desires. When faced with this kind of all-or-nothing choice, the executive will be less likely to exercise his veto authority, in part because the chances of the veto's success are reduced considerably. The item veto avoids this problem because it enables the chief executive to eliminate objectionable expenditures without having to veto an entire measure. (This decision calculus on the part of the executive parallels that described above for the legislator facing a bundled bill in State A versus individual bills in State B.)

Opponents of the item veto have raised the following objections: First, there is a moral hazard problem. With the item veto at its disposal, the executive branch assumes more responsibility for

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eliminating wasteful spending programs. This invites legislative irresponsibility because legislators will tend to rely on the executive branch to cut out wasteful provisions with the item veto. By discouraging legislative discipline, critics argue that the item veto actually could discourage fiscal efficiency.32

A second objection is that the item veto is an instrument to promote executive branch interests, which are thought to be powerful enough without it.33 Moreover, the increased influence provides a further means to reward loyal legislators, to punish disloyal ones, and to promote partisan causes generally. Put differently, even if the item veto improves fiscal restraint, some would argue the restraint comes at the expense of disturbing a healthy competitiveness between the political parties.

Much of the debate over the merits of the item veto has centered around statistical comparisons of state budgets.34 Typically, the models seek to explain state spending as a function of the item veto, using controls for other potential factors such as state income and population. By and large, the results indicate that spending in item veto states does not differ significantly from spending in non-item veto states.35

We find three shortcomings in the empirical literature on the item veto.36 First, the state studies tend to treat all item vetoes the same when in fact they differ a great deal. Of the forty-three states that have an item veto, ten give their governors authority to either

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33. See Abney & Lauth, supra note 30.
34. See supra notes 1-4 and accompanying text.
35. Examples of empirical studies of this sort are the Advisory Commission on Intergovernmental Relations, supra note 22; Zycher, Institutional and Mechanical Control of Federal Spending, in Control of Federal Spending, supra note 5, at 142-43; D. Holtz-Eakin, supra note 28.
36. Indeed, Professor Holtz-Eakin points out several of these shortcomings and substantially improves upon the previous studies. D. Holtz-Eakin, supra note 28. He investigates various forms of the item veto and finds no differences among them. Id. at 13. In addition, he explores the effect of party control of the state legislatures and executive branches. Id. at 11-14, 21-24. In general, his study concludes that the item veto does not reduce the level of state spending, although it does appear to work under specific political circumstances. Id. at 2, 24-25.
write in a lower spending level or veto the entire item.\textsuperscript{37} This is the so-called "item-reduction veto."\textsuperscript{38} For reasons we shall describe below,\textsuperscript{39} we would expect this form of the item veto to differ in its effects from the more traditional form. Second, as stressed above, state budgetary institutions vary in key respects, yet few of these institutional differences are controlled in the quantitative analyses. Finally, previous studies generally examine the item veto's effect on state government spending or spending per capita. In contrast, we use rates of growth in real per capita state spending over complete biennial budgeting cycles in the empirical models specified below.

\section*{G. Executive and Legislative Budgets}

Like the item veto, another practice influences the environment within which the respective branches make fiscal decisions: In one-third of the states, the executive and legislative branches separately prepare their own budget proposals.\textsuperscript{40} In the remaining states, the budget-writing authority is given to the executive branch alone, and the legislature is placed in the position of reacting to the proposed executive branch budget.\textsuperscript{41}

The difference between an exclusive executive branch budget and a separate legislative budget is two-fold. First, the executive budget obviously increases a governor's agenda-setting ability, shifting the relative balance of power in his direction and away from the legislature. Second, the executive budget comes closer to what is sometimes described as a "top-down" budget process, whereas the legislative budget is closer to a "bottom-up" budget process. The distinction between top-down and bottom-up budgeting is that the former gives priority to setting fiscal aggregates, such as total spending and borrowing levels, in order to place overall constraints on lower-level decisions. Bottom-up budgeting describes processes that give priority to making disaggre-

\begin{footnotesize}
\begin{enumerate}
 \item See Advisory Commission on Intergovernmental Relations, \textit{supra} note 22, at 152-58.
 \item See id.
 \item See infra text accompanying notes 44-45.
 \item See National Association of State Budget Officers, \textit{supra} note 9, at 38.
 \item See id.
\end{enumerate}
\end{footnotesize}
gated—program by program—policy decisions. Building the budget from the bottom up is a process of aggregating these lower-level components to form the total fiscal picture.42

The organization of the executive branch is more conducive than that of the legislative branch to top-down budgeting. In some cases legislatures do adopt rules requiring the establishment of fiscal aggregates, yet the pull of parochial constituent concerns makes the enforcement of such budget totals more difficult for the legislature than for the executive branch. The executive branch has an advantage in that the budget totals are easier to enforce, leaving bargaining over individual program levels left to be resolved. In the absence of an overall spending ceiling, conflicts over the funding of individual programs are more likely to be resolved by enlarging the entire pie. We thus expect to find differences in total spending behavior between executive and legislative budget states, with greater spending growth in the latter.

To summarize, the budget process, with specialized institutional nuances, is a hybrid of the broader legislative process. We have focused on seven major budget rules that diverge among the states and the federal government. We select these particular elements of budgetary processes because: (a) Most have received little analytical attention; (b) those institutions that have been examined (for example, the item veto) remain controversial; and (c) they seem to us, judging from both personal experience and a review of the literature, to constitute the most important variations. In addition, these institutions illustrate well the way that the rules constituting the budget process, and the interdependence among them, change underlying behavioral incentives. This approach, of course, is standard for the follower of public choice theory.

III. EMPIRICAL MODEL: STATE SPENDING GROWTH AND BUDGET RULES

The empirical models we use to estimate the impact of alternative budget practices on state spending growth are generally of the following form: State spending growth is a function of the following independent variables: item-reduction veto; number of budget

42. See Committee on the Budget, U.S. House of Representatives, supra note 9, at 25-33; L. LeLoup, supra note 9, at 17-21.
bills; budget bill format; non-appropriated funds in budget; super-majority for tax increase; constitutional balanced budget requirement; and separate legislative budget.

The dependent variable, state spending growth, is the percentage change in real per capita state government expenditures over two, two-year legislative terms (for example, the difference between what Texas spent in 1985-86 and 1983-84). The source of the data is the Bureau of the Census (annual editions). We compare two-year changes to standardize those states that budget annually and those that budget biennially; in other words, one complete budget cycle is the basic unit of observed action applied in all cases. All spending figures are adjusted to reflect constant 1982 dollars.\textsuperscript{43} To capture the effects of longer-run budgetary behavior, we estimate the models using the average biennial percentage change in spending over the three full cycles from 1979 through 1986.

The independent variables in the models control the presence or absence of budget practices discussed in Section II. We control for the presence of the item-reduction veto in the state budgetary process (ten states are of this type) by specifying that the item reduction veto variable is equal to one if a state has the item-reduction veto and equal to zero if it does not.\textsuperscript{44} The item-reduction veto is expected to reduce the rate of spending growth for two reasons. First, it provides the executive branch with more agenda-setting power over fiscal decisions. A chief executive is more likely to exercise the veto when he has more freedom to set budgetary amounts. For example, a chief executive faced with excessive funding for a remedial reading program is unlikely to veto the whole amount, but likely would consider reducing the amount to something he thought more appropriate if he had such authority. The second reason the item-reduction veto is expected to be effective in controlling spending is that the at-large nature of a governor's constituency is less tolerant of local pork barrel projects than the geographically segmented constituencies of legislators. This is not to argue that the executive branch is immune from using the public


\textsuperscript{44} House Comm. on Rules, supra note 28, at 4.
purse for reelection purposes. Rather, we simply suggest that the executive branch will be less prone to increase spending in this connection than the legislative branch, all other things being equal. The difference stems from the bases of representation, as discussed earlier. Thus, the sign on the estimated coefficient for the item-reduction veto variable is expected to be negative.

Number of budget bills measures the number of separate bills into which a state's budget is divided. As the number of separate budget bills increases, we expect slower spending growth. Separating the budget into multiple bills, each representing a smaller spending package, reduces the total program and benefits funded in a given bill. This diminishes a legislator's willingness to include or to accept an objectionable provision in each bill. Thus, we expect more budget bills to result in slower spending growth.

Budget bill format measures the specificity of the budget document and is included to proxy the level of control that the legislature has over the activities of agencies and departments. This is a binary variable, which is equal to zero if the format is more general (i.e., not conducive to specific legislative control) and is equal to one if the format is relatively specific. We expect a positive coefficient on this variable because, with increased control over spending, legislators have greater incentive to fund programs.

As we discussed in Section II, two-fifths of the states require the entire budget to go through the periodic budget process. In other states, and in the federal budget, non-appropriated funds such as entitlements are included in the "unified" budget totals, even though no legislative action is required to spend these funds. In order to examine the differential growth rate between appropriated and non-appropriated budget states, we employ the non-appropriated funds variable. If a state has only appropriated funds, the variable is equal to zero; if some funds are non-appropriated, it is

45. See supra note 29 and accompanying text.
46. Estimated coefficient refers to the value of the partial regression coefficient estimated using ordinary least squares. It measures the direction and magnitude of the relationships between the dependent and independent variables, in this case the effect of the item reduction veto on state spending growth.
47. National Conference of State Legislatures, supra note 9, at 7, 49-50.
48. See National Association of State Budget Officers, supra note 9, at 13.
49. See supra note 19 and accompanying text.
equal to one. We expect the coefficient on the non-appropriated funds variable to have a positive sign. Non-appropriated funding of programs is a back door means of circumventing the normal appropriations process. Moreover, once spending programs are established outside the control of the periodic budgetary process, they tend to become resistant to cuts; as is well known, blocking legislation is easier than getting it passed.

The super-majority for tax increase variable is a binary variable that is equal to one for states that have adopted this requirement, and equal to zero if they did not. Again, the tax-and-spend literature suggests a causal connection that should be controlled. This variable is expected to produce a negative coefficient because in making an increase in revenues more difficult, the requirement tightens the total constraint on spending options.

Following the results of previous empirical analyses on the size of state governments, we distinguish between those states that have a constitutional requirement for a balanced budget and those that have a statutory requirement or no requirement at all. We attempt to control the effects of this variable in two ways. First, a constitutional balanced budget requirement is entered into the basic estimating equation as a binary variable that is equal to one if a balanced budget is required constitutionally, and equal to zero if otherwise. Previous evidence indicates that although all but one state require a balanced budget in one form or another, constitutional constraints have significantly different effects than statutory constraints. A constitutional requirement, which is more difficult to circumvent than a statutory requirement, is expected to impose a greater dampening effect on spending growth. Thus a negative sign is predicted on the binary variable.

Second, we split the sample between those states that constitutionally require a balanced budget and those that do not. The purpose of this partition is to check for interdependencies between constitutional balanced budget requirements and the other budgetary rules discussed earlier. For example, the impact of a super-
majority requirement for tax increases may not be the same under each type of constitutional regime.

In states in which the legislature produces a separate budget of its own, some control will be shifted away from the executive branch and to the legislature. This shift in budgetary control is important due to differences inherent in the two organizational forms, in addition to the different bases of representation discussed earlier (at-large versus geographic representation). We control the effects of legislative versus executive branch control with a separate legislative budget variable. This variable is included in the analysis in the two ways described for the balanced budget requirement, and in a third way: by forming an interaction variable with the number of budget bills.

As we discussed in Section II, the legislative branch is less suited than the executive branch to reach and enforce ceilings on the level of aggregate spending. The diversity of legislators' interests and majority voting requirements make top-down budgeting costly to carry out in legislatures. On the other hand, the organizational form of the executive branch lends itself to top-down budgeting because the executive branch can more easily hold the line on its agreed-to budget aggregates.

To check empirically for differences in the executive and legislative branches, separate legislative budget is first entered as a binary variable; it is equal to one for states that provide for both a legislative budget proposal and an executive branch budget proposal, and equal to zero in states that provide only for an executive budget. A positive sign is anticipated on this binary variable. Second, an interaction variable, which is formed by multiplying separate legislative budget by the number of budget bills variable, is entered into the model. The reasoning here is that dividing the budget into multiple measures should restrain spending more effectively in legislative budget states than in executive budget states. Recall that spending growth is expected to increase in states in which the legislature enacts a single catch-all budget measure that it then sends to the executive branch. In states that use multiple budget bills, the executive branch is not placed in this type of

54. See supra note 29 and accompanying text.
55. See supra pp. 1026-27.
take-it-or-leave-it position. This suggests that the effect of a number of budget bills will depend on which type of budgetary settings they are in. As a last check on the interdependence between the types of budgets used and the other variables, we divide the sample into those states using only an executive budget and those using separate executive and legislative budgets.

Finally, lagged values of the dependent variable have been included in the specifications to account for its level at the beginning of the period. The \textit{growth rate in spending in initial period} variable is equal to the percentage change in real per capita state spending from the 1979-80 biennium to the 1981-82 biennium. The purpose of including this variable is to control the effects of other long term forces that may be influencing state spending growth.\footnote{Gray & Lowery, Interest Group Politics and Economic Growth in the U.S. States, 82 Am. Pol. Sci. Rev. 109 (1988).

IV. Results

The models outlined above were estimated using ordinary least squares regression analysis\footnote{Regression analysis is concerned with the study of the dependence of one variable, the dependent variable, on one or more other variables, the explanatory variables, with a view to estimating and or predicting the (population) mean or average value of the former in terms of the known or fixed (in repeated sampling) values of the latter.} on state cross sectional data for the period 1979 through 1986. The results of the various specifications are presented in Tables 1, 2 and 3. Generally, the explanatory power of the models is quite good, and the results on the individual variables strongly imply that specific budget rules make a difference in the growth of state spending.

First consider the three models shown in Table 1, each of which is estimated using data for all fifty states. In all three models, the \textit{item-reduction veto} variable is negative and significant. We note—consistent with previous findings—that when we lumped together all forty-four states with any type of item-veto, we found no significant effect. That is, in one regression (not reported) in which a variable was included to serve as a control for the forty-four states that have some form of the item veto versus those states that have none, we found this coefficient to be insignificant. The magnitude of the effect of the item-reduction veto variable appears

\footnote{Id.}
to be substantial. For example, assume for the moment that the values of all the variables equal zero, except for the growth rate during the initial period. If we use the mean value for all states of the initial period growth rate, 1.5%, and use the estimates in Model A in Table 1, the item-reduction veto variable cuts the rate of spending growth over a two-year period from 2.8% to .1%—a reduction of 2.7%.

**TABLE 1**

OLS Regression Results for Per Capita Growth Rates in Real State Spending (1979-1986)
(50 States)

<table>
<thead>
<tr>
<th>Independent Variables</th>
<th>Model A</th>
<th>Model B</th>
<th>Model C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Item-Reduction Veto</td>
<td>-0.027</td>
<td>-0.027</td>
<td>-0.023</td>
</tr>
<tr>
<td></td>
<td>(-2.10)**</td>
<td>(-2.04)**</td>
<td>(-1.79)*</td>
</tr>
<tr>
<td>Budget Bill Format</td>
<td>0.034</td>
<td>0.033</td>
<td>0.025</td>
</tr>
<tr>
<td></td>
<td>(2.31)**</td>
<td>(2.20)**</td>
<td>(1.65)*</td>
</tr>
<tr>
<td>Non-Appropriated Funds in Budget</td>
<td>0.012</td>
<td>0.012</td>
<td>0.012</td>
</tr>
<tr>
<td></td>
<td>(2.07)**</td>
<td>(2.03)**</td>
<td>(2.06)**</td>
</tr>
<tr>
<td>Super-Majority Required to Increase Taxes</td>
<td>-0.010</td>
<td>-0.010</td>
<td>-0.011</td>
</tr>
<tr>
<td></td>
<td>(-1.11)*</td>
<td>(-1.10)*</td>
<td>(-1.14)*</td>
</tr>
<tr>
<td>Number of Budget Bills</td>
<td>-0.1E-04</td>
<td>-0.1E-04</td>
<td>0.2E-04</td>
</tr>
<tr>
<td></td>
<td>(-0.30)</td>
<td>(-0.34)</td>
<td>(0.40)</td>
</tr>
<tr>
<td>Constitutional Balanced Budget Requirement</td>
<td>-0.004</td>
<td>-0.008</td>
<td>0.013</td>
</tr>
<tr>
<td></td>
<td>(-0.70)</td>
<td>(-1.30)*</td>
<td>(1.75)*</td>
</tr>
<tr>
<td>Separate Legislative Budget Interaction Term (Legis. Budget &amp; No. of Bills)</td>
<td>-0.023</td>
<td>-0.1E-03</td>
<td>(-0.2E-03)</td>
</tr>
<tr>
<td></td>
<td>(8.03)**</td>
<td>(7.38)**</td>
<td>(7.48)**</td>
</tr>
<tr>
<td>Growth Rate in Spending in Initial Period</td>
<td>0.365</td>
<td>0.354</td>
<td>0.352</td>
</tr>
<tr>
<td></td>
<td>(8.03)**</td>
<td>(7.38)**</td>
<td>(7.48)**</td>
</tr>
<tr>
<td>Constant</td>
<td>0.023</td>
<td>0.025</td>
<td>0.023</td>
</tr>
<tr>
<td></td>
<td>(4.55)**</td>
<td>(4.34)**</td>
<td>(3.87)*</td>
</tr>
<tr>
<td>Adjusted R-Square</td>
<td>0.5975</td>
<td>0.5928</td>
<td>0.6110</td>
</tr>
<tr>
<td>Standard Error of Estimate</td>
<td>0.020</td>
<td>0.020</td>
<td>0.020</td>
</tr>
</tbody>
</table>

Notes: Significant at the 5 percent (**) and the 10 percent (*) levels, for one- or two-tailed tests, as appropriate.
The budget bill format variable is significant in all three models. As expected, a more detailed budget document accelerates state spending growth. If legislators are given enhanced control over the details of spending programs, they are more willing to pump up appropriations than is the case with budget documents that are more vague. Using this broad two-way classification of the different budget document formats, the findings in Table 1 suggest that the document format's impact raises spending growth by more than 3% for a two-year cycle.

The non-appropriated funds variable is also negative and significant in all three models. The increases in state government growth are 1.2% higher for the two-year budget cycles in these states compared to states that subject all funds to periodic budgeting.

The super-majority required to increase taxes variable is negative, as expected, although it is significant at only the 10% level in the three models shown in Table 1. We do obtain more statistically significant results for this variable when the states are divided into two groups as discussed below.\[59\]

Similarly, the estimated coefficients are negative for the number of budget bills variable, but are not significant in Models A and B when this variable is entered in its simple binary form. However, in Model C of Table 1, in which the number of budget bills is included with the separate legislative budget variable and the interaction term, a significant effect is obtained. Specifically, the interaction variable—reflecting the effect of the number of budget bills in states that have a separate legislative budget—is significant, although the number of budget bills binary variable remains insignificant. This result implies that these two practices are interdependent in the following way: If a state has only an executive budget, dividing the budget into multiple bills seems unimportant; however, if there is a separate legislative branch budget, having multiple budget bills does reduce the growth rate in state spending. According to the estimate in Model C, each additional budget bill slows the growth rate in state spending by roughly 0.2% over the two-year period. So, for example, among the states that have separate legislative budgets, if the budget is divided among ten bills as opposed to a single bill, spending growth would be lowered

59. See infra p. 1042.
by 2% for the two-year period. In its own right, the separate legislative budget variable is positive and significant as it appears in Table 1. The estimated effect of having a separate legislative budget, in addition to the executive branch budget, is a 1.3% increase in spending growth over the two-year period.

Finally, somewhat inconsistent with previous studies, we find that the impact of the constitutional balanced budget requirement variable is interdependent with the other budgetary practices. In the models shown in Table 1, the coefficient is significant only when we control for the separate legislative budget. Other things held equal, in this model the requirement appears to cut the growth of state spending by nearly 1% over the two-year period.

The notion that the effects of budget rules are interdependent is investigated further in Tables 2 and 3. In Table 2, our data from the fifty states is split into two groups: those states that have a constitutional balanced budget requirement (thirty-one states) and those that do not (nineteen states). The results generally indicate that the impact of the respective budget rules depend on the other rules in place. In this case, the presence or absence of a constitutional balanced budget requirement interacts starkly with the other rules shown. One can see this result by comparing the coefficients listed in the left-hand column of Table 2 (estimated using the sample of states without a constitutional requirement) with the coefficients in the right-hand column (estimated using the sample of states with a constitutional requirement). Comparing the differences in estimates for these two groups, the item-reduction veto, the budget bill format, super-majority requirements for tax increases and the number of budget bills each appear to affect spending growth in the absence of a constitutional balanced budget requirement. In the group of states that have such requirements, the coefficients reflecting these practices do not appear at statistically significant levels.

60. For a study asserting that constitutional balanced budget requirements do not have an independent effect on the budgetary process, see Abrams & Dougan, The Effects of Constitutional Restraints on Governmental Spending, 49 PUB. CHOICE 101-16 (1986).

61. See ADVISORY COMMISSION ON INTERGOVERNMENTAL RELATIONS, supra note 22, at 40.
### TABLE 2

OLS Regression Results for Per Capita Growth Rates in Real State Spending (1979-1986) (States Divided into Sub-Groups)

<table>
<thead>
<tr>
<th>Independent Variables</th>
<th>States w/no Consti.</th>
<th>States w/Consti.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>States w/no Consti.</td>
<td>States w/Consti.</td>
</tr>
<tr>
<td></td>
<td>Bal. Budget (N=19)</td>
<td>Bal. Budget (N=31)</td>
</tr>
<tr>
<td>Item-Reduction Veto</td>
<td>-0.062 (-3.86)**</td>
<td>-0.002 (-0.11)</td>
</tr>
<tr>
<td>Budget Bill Format</td>
<td>0.075 (4.26)**</td>
<td>-0.003 (-0.16)</td>
</tr>
<tr>
<td>Non-Appropriated Funds in Budget</td>
<td>0.010 (1.49)*</td>
<td>0.022 (2.48)**</td>
</tr>
<tr>
<td>Super-Majority Required to Increase Taxes</td>
<td>-0.031 (-2.71)**</td>
<td>0.011 (0.76)</td>
</tr>
<tr>
<td>Number of Budget Bills</td>
<td>-0.7E-04 (-1.48)*</td>
<td>-0.003E-03 (-1.24)</td>
</tr>
<tr>
<td>Growth Rate in Spending in Initial Period</td>
<td>0.453 (8.79)**</td>
<td>0.130 (1.07)</td>
</tr>
<tr>
<td>Constant</td>
<td>0.025 (4.08)**</td>
<td>0.012 (1.55)*</td>
</tr>
<tr>
<td>Adjusted R-Square</td>
<td>0.7317</td>
<td>0.4128</td>
</tr>
<tr>
<td>Standard Error of Estimate</td>
<td>0.018</td>
<td>0.016</td>
</tr>
</tbody>
</table>

Notes: Significant at the 5 percent (**) and the 10 percent (*) levels, for one- or two-tailed tests, as appropriate.

In Table 3, we again split the fifty states’ data into those states that have a separate legislative budget (the left-hand column) and those states that have only an executive branch budget (the right-hand column). Once again the results reinforce the broad point that the impact of budget rules are interdependent. Take, for example, the results for the number of budget bills variable. Whereas it is highly significant in legislative budget states, it appears to make no difference at all in the executive budget states. The same holds true for the effect of constitutional balanced budget require
ments when the group is subdivided along these lines. Constitutional balanced budget requirements significantly slow spending growth in the legislative budget states, but not in the executive budget states.

### TABLE 3

**OLS Regression Results for Per Capita Growth Rates in Real State Spending (1979-1986)**

<table>
<thead>
<tr>
<th>States w/Separate Legislative Budget (N=17)</th>
<th>States w/no Separate Legislative Budget (N=33)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Independent Variables</td>
<td>Coefficients/(t-statistics)</td>
</tr>
<tr>
<td>Item-Reduction Veto</td>
<td>-0.003 (-0.35)</td>
</tr>
<tr>
<td>Number of Budget Bills</td>
<td>-0.2E-03 (-3.26)**</td>
</tr>
<tr>
<td>Non-Appropriated Funds In Budget</td>
<td>0.015 (2.44)**</td>
</tr>
<tr>
<td>Constitutional Balanced Requirement</td>
<td>-0.014 (-1.84)**</td>
</tr>
<tr>
<td>Growth Rate in Spending in Initial Period</td>
<td>0.156 (1.99)**</td>
</tr>
<tr>
<td>Constant</td>
<td>0.037 (4.93)**</td>
</tr>
<tr>
<td>Adjusted R-Square</td>
<td>0.6915 (4.93)**</td>
</tr>
<tr>
<td>Standard Error of Estimate</td>
<td>0.012 (4.93)**</td>
</tr>
</tbody>
</table>

Notes: Significant at the 5 percent (**) and the 10 percent (*) levels, for one- or two-tailed tests, as appropriate.

**V. IMPACT OF FEDERAL REFORMS**

What does our analysis contribute to the debate over federal budget process reform? We have identified several rules at the state level that, when used in tandem or as individual components in the budget process, appear to make a difference, at least in the growth rate of aggregate spending. In the remainder of the paper, we made some projections about the potential impact of these
rules on the growth of federal spending. As a way of illustrating the magnitude of the potential savings involved, we extrapolated the state results to federal spending over a seven-year period.

From FY 1982 to FY 1989, total federal government outlays grew by roughly $174 billion (in constant 1988 dollars). In real per capita terms, this is an average increase of about 4.6% for each two-year period. The biennial figures for this period are shown in Table 4. Suppose the item-reduction veto had been in effect at the federal level beginning in FY 1982. Based on the state findings, what difference would this have made?

**TABLE 4**

Federal Outlays and Projected Savings From Item-Reduction Veto

<table>
<thead>
<tr>
<th>FY's</th>
<th>ACTUAL OUTLAYS</th>
<th>(PERCENT CHANGE)</th>
<th>W/I-R-V OUTLAYS</th>
<th>I-R-V SAVINGS</th>
</tr>
</thead>
<tbody>
<tr>
<td>80-81</td>
<td>$7,588</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>82-83</td>
<td>7,916</td>
<td>4.3</td>
<td>$7,738</td>
<td>$178</td>
</tr>
<tr>
<td>84-85</td>
<td>8,357</td>
<td>5.6</td>
<td>7,992</td>
<td>365</td>
</tr>
<tr>
<td>86-87</td>
<td>8,652</td>
<td>3.5</td>
<td>8,086</td>
<td>556</td>
</tr>
<tr>
<td>88-89(est)</td>
<td>$9,075</td>
<td>4.9</td>
<td>$8,295</td>
<td>780</td>
</tr>
</tbody>
</table>

Cumulative Savings $1,879

**TOTAL (BILLIONS OF 1988 DOLLARS)**

<table>
<thead>
<tr>
<th>FY's</th>
<th>ACTUAL OUTLAYS</th>
<th>POPULATION (Millions)</th>
<th>W/I-R-V OUTLAYS</th>
<th>I-R-V SAVINGS</th>
</tr>
</thead>
<tbody>
<tr>
<td>82-83</td>
<td>$1,845.7</td>
<td>233.2</td>
<td>$1,804.0</td>
<td>$41.2</td>
</tr>
<tr>
<td>84-85</td>
<td>1,985.8</td>
<td>237.6</td>
<td>1,899.0</td>
<td>86.8</td>
</tr>
<tr>
<td>86-87</td>
<td>2,094.2</td>
<td>242.1</td>
<td>1,957.6</td>
<td>136.6</td>
</tr>
<tr>
<td>88-89(est)</td>
<td>$2,226.0</td>
<td>245.3</td>
<td>$2,034.8</td>
<td>191.2</td>
</tr>
</tbody>
</table>

Cumulative Savings $455.8

---

62. *See Executive Office of the President Office of Management and Budget, Budget of the United States Government Fiscal Year 1989 Historical Tables, Table 1.3, at 20. We transformed the OMB Table from 1982 dollars to 1988 dollars.*
The projections are shown in the fourth column of the top panel of Table 4. The cumulative difference over this eight-year period between actual federal outlays and outlays if the item-reduction veto had been in effect is estimated to be about $450 billion in 1988 dollars. By this projection, a federal item-reduction veto would have cut real spending growth in half. We will leave to the interested reader the task of using this procedure to project the savings that would accrue from the other budget instruments we have analyzed above. We simply note the large potential of these alternative budget rules to affect the growth of federal outlays.