



RESEARCH REPORT

# Sustainable Budgeting in the States

Evidence on State Budget Institutions and Practices

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# Contents

<b>Acknowledgments</b>	<b>iv</b>
<b>Executive Summary</b>	<b>1</b>
<b>Sustainable Budgeting in the States</b>	<b>3</b>
Components of a State Budget	4
How Do States Pay for Services?	4
What Do States Spend Money On?	5
State Budgets and Revenue Volatility	9
Causes of Revenue Volatility	9
Trends in Revenue Volatility	11
Fiscal Institutions and Revenue Volatility	12
Other Types of Volatility	13
Budget Influencers	13
The Executive Branch	14
The Legislative Branch	17
The Judicial Branch	20
Outside Influencers	22
Political Conditions and Institutions	26
Evidence on Sustainable State Budgeting Practices	30
Budgeting Timelines, Forecasting, and Baselines	32
Budget Requirements and Restrictions	40
Budget Transparency Measures	61
Recommendations and Conclusion	64
Focus on Sustainable Systems	65
Focus on Design	66
Focus on Evidence	67
Focus on Implementation	68
<b>Appendix A. State Budget Practices at a Glance</b>	<b>70</b>
<b>Appendix B. Legislative Fiscal Offices</b>	<b>73</b>
<b>Appendix C. Budget Stabilization Fund Citations</b>	<b>77</b>
<b>Notes</b>	<b>80</b>
<b>References</b>	<b>84</b>
<b>About the Authors</b>	<b>96</b>
<b>Statement of Independence</b>	<b>97</b>

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# Executive Summary

Does process influence outcome? Each budget cycle, states decide on spending priorities and tax rates, and each has adopted different practices and rules that influence fiscal outcomes. New institutions have developed in response to changing priorities and fiscal crises, but are they effective?

States have adopted balanced budget requirements (BBRs), budget stabilization funds, (BSFs) and other budget institutions as tools to enforce fiscal restraint and ensure stability during economic downturns. They have also used the budgeting cycle, revenue-estimating techniques, debt limits, and budgeting baselines as tools to plan and set spending priorities. However, not all budget practices achieve the desired fiscal objectives, and some practices may compromise states' long-term fiscal sustainability. This report synthesizes existing research while pointing out the limits of current practice and knowledge. We review

- **budgeting timelines, baselines, and forecasting**, including annual and biennial budgeting, revenue forecasting, performance-based budgeting, zero-based budgeting, and current services baselines;
- **budget requirements and restrictions**, including BBRs, BSFs, debt limits, the line-item veto, supermajority budget rules, and tax and expenditure limits (TEs); and
- **budget transparency measures**, including pension and tax expenditure accounting.

In most states, the governor provides initial guidance on spending priorities as well as the first budget proposal. The legislature then debates the governor's proposal and passes its own version of the budget, which it sends to the governor. Most governors can then exercise line-item veto authority to reject specific provisions in the bill. Throughout the process, legislative fiscal offices inform legislators, and courts may step in to enforce standards for public services after a budget is passed. Political and budget institutions, such as the line-item veto and supermajority voting rules, can tip the balance of power between branches of state government, and both federal and local governments exercise varying levels of influence over state funding, spending needs, and decisionmaking. In states that have voter initiative and referenda systems, budgeting decisions are often made at the ballot box.

Evaluating budget institutions across states while accounting for design differences and states' underlying political and economic conditions is a challenge. Research methodology can affect study findings. Conflicting research findings and the social and political idiosyncrasies of each state create

challenges for curating an evidence-based toolkit of state budget practices. Based on our synthesis of the literature, we recommend states take the following actions:

**1. Focus on sustainable systems**

- › Pair strict BBRs with robust BSFs, which can soften volatility without undermining the beneficial effects of strict antideficit rules.
- › Reform or eliminate TELs that prevent either saving during good times or raising revenues during economic downturns.
- › Be transparent about pension liabilities and tax expenditures, redesign debt limits to discourage shifting to nonguaranteed forms of debt, and practice current service budgeting.

**2. Focus on design**

- › Adopt stricter automatic contribution requirements for BSFs, based on the volatility of each state's unique revenue streams.
- › Partner with the research community to invest in additional research on best design practices.

**3. Focus on evidence**

- › Partner with the research community to invest in research that uses rigorous econometric techniques, accounting for differences in voter preferences and budget institutions.
- › Consider multiple metrics and examine long-term fiscal trade-offs.
- › Examine social and economic outcomes, such as the distributional effects of disciplinary fiscal institutions, and other outcomes beyond spending and debt.
- › Include controls in study design for differences in implementation across states.

**4. Focus on implementation**

- › Consider how party politics, electoral cycles, and other political conditions affect implementation and fiscal outcomes.

State policymakers face a wide range of institutional constraints and choices when budgeting, and research often presents conflicting findings. Researchers and policymakers should work together to build the evidence base and reorient the discussion toward long-term sustainability.

# Sustainable Budgeting in the States

This report synthesizes over 30 years of research on state budget institutions as a guide for state policymakers to adopt sustainable budget practices. Urban Institute scholars reviewed more than 200 papers from peer-reviewed journals and other authoritative sources on state budget processes to identify best practices and curate an evidence-based toolkit for policymakers to produce healthy state budgets.

Budgets are a set of policy decisions, laid out in laws and other documents, that act as fiscal planning and accountability tools, setting spending priorities and identifying how states will meet service obligations. Healthy state budgets are a prerequisite for an effective public sector that can serve residents and provide basic public goods like roads, police, and schools. How do states create these fiscal guiding documents, and how do they achieve consensus on competing spending and revenue-raising priorities? Cyclical economic downturns since the 1980s have exposed deficiencies in state budgeting systems and cast doubt on the fiscal sustainability of common budgeting practices.

In this paper, we highlight research on state fiscal institutions and identify evidence-based budgeting practices lawmakers may consider when undertaking budgeting reform in their states.

In **Components of a State Budget**, we discuss what states spend money on and how they fund their services. Understanding these components is critical in illustrating the trade-offs state policymakers make during the budgeting process and the services that depend upon public budgeting decisions.

In **State Budgets and Revenue Volatility**, we discuss how the increasing volatility of state tax revenues has made it difficult for states to accurately forecast revenues, contributing to deficit shocks and their resultant midyear spending cuts and tax increases.

In **Budget Influencers**, we discuss the role that the executive, legislative, and judicial branches play in articulating, passing, and amending tax and spending decisions. We also review the literature on how outside influencers, such as the federal government and public sector unions, influence the budget process, as well as literature on the role of political institutions and conditions, such as term limits and divided government.

We then discuss and review the **Evidence on Sustainable State Budgeting Practices**. We discuss fiscal institutions that fall into three core categories: (1) budgeting timelines, baselines, and forecasting; (2) budget requirements and restrictions; and (3) budget transparency measures. In each section, we

compare differences in design and implementation across states and highlight best practices from the literature.

Last, in **Recommendations and Conclusion** we discuss how policymakers can focus on sustainable systems, design, evidence, and implementation to improve state budget practices. Appendix A provides a glossary of **State Budget Practices at a Glance**. Appendix B, **Legislative Fiscal Offices**, lists the fiscal office in each state responsible for providing budget and fiscal analysis to the state legislature.

**Appendix C** lists **Budget Stabilization Fund Citations** for each state.

## Components of a State Budget

Charting what states spend money on and how they pay for services is critical to understanding what is at stake during the public budgeting process. The trade-offs lawmakers face during the budget process have material consequences for the quality of state services, such as Medicaid and education; the condition of public infrastructure, such as highways and roads; and the sustainability of other public investments that affect quality of life and well-being for residents. Lawmakers often debate the merits of funding different services and the appropriate role of government, while budget institutions affect the parameters within which lawmakers work to allocate funds to their respective priorities.

### How Do States Pay for Services?

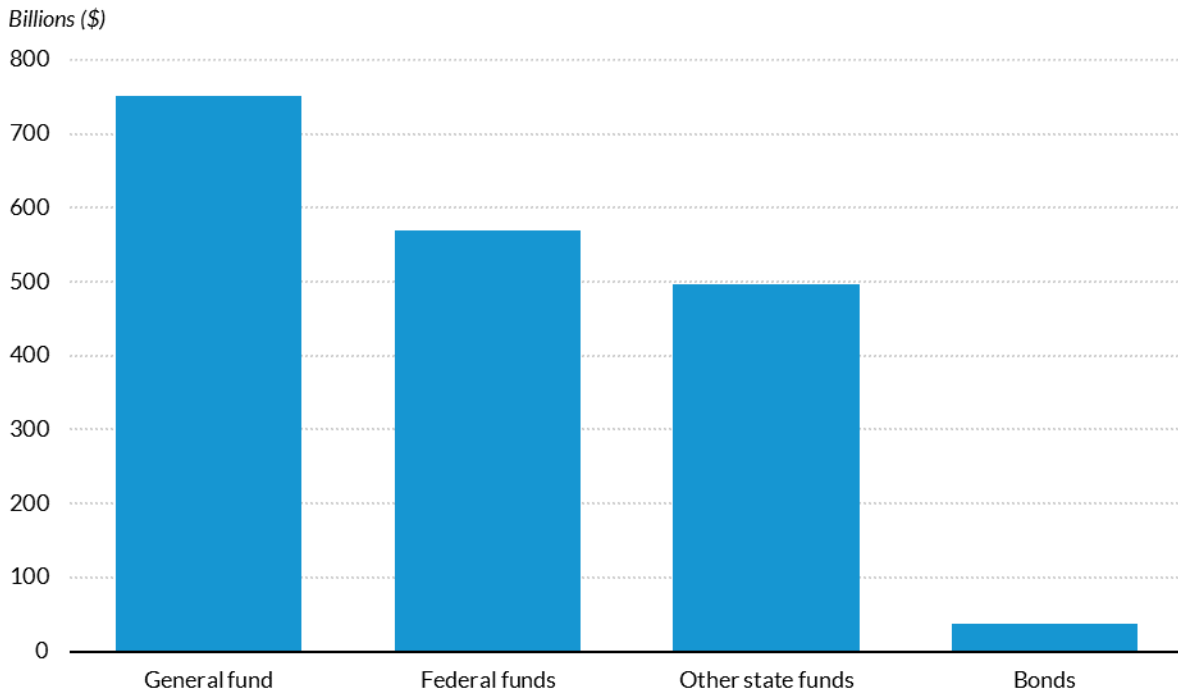
When a state puts together its budget, it pays for services and public goods through four sources: (1) its general fund, (2) federal funds, (3) bond proceeds, and (4) other special state funds (NASBO 2016a). The general fund includes own-source revenues that states raise from broad-based taxes like the sales and income tax. States pay for current operating expenses out of the general fund, and general funds are the primary means of financing public services, such as education and corrections. In 2015, about 41 percent of state expenditures (\$751 billion) came from states' general funds (figure 1). Each state defines its general fund uniquely, and what states include in their general funds varies dramatically. Some states dedicate more of their general fund spending to K–12 education, for example, while many states finance K–12 services out of a varying combination of general funds and other state funds, such as dedicated lottery or tobacco tax funds.



FIGURE 1

**Total State Expenditures by Funding Source**

Fiscal year 2015



Source: NASBO (2016a).

“Other state funds” are 27 percent of state expenditures (figure 1) and contain earmarked revenue sources. The ongoing operation and maintenance of capital assets is often financed from dedicated revenue sources contained in “other state funds.” For example, many states earmark motor fuels taxes for highway repairs, placing the revenue into a special state fund set aside for that purpose. A separate financing mechanism is bond proceeds, which often fund initial capital construction and may be voter approved and subject to state debt limits. Last, federal funds (31 percent of total expenditures, figure 1) pay for a variety of services and often come in the form of matching grants for social services like Medicaid, the Children’s Health Insurance Program (CHIP), and other means-tested public assistance programs.

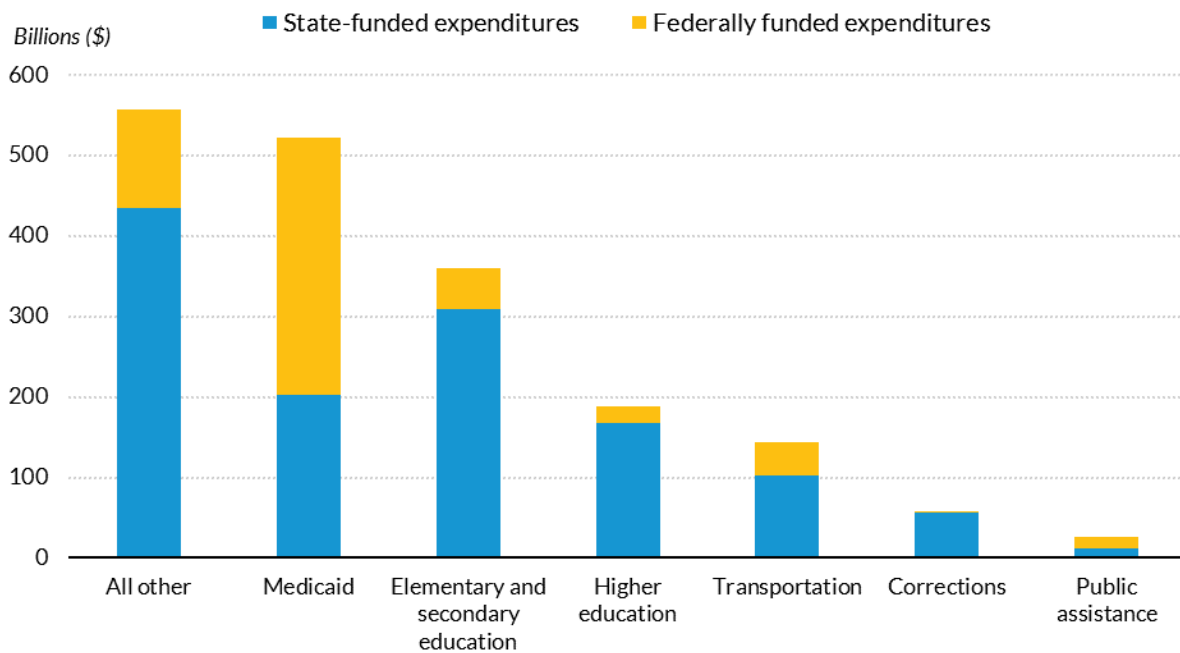
**What Do States Spend Money On?**

States spend much of their resources on public services and social benefits to individuals. For example, 28 percent of total state spending (including grants from the federal government) goes to Medicaid, and

20 percent goes to K–12 education (NASBO 2016a).<sup>1</sup> However, because states operate in a federalist system, the federal government often finances a sizable portion of states’ direct spending on these programs. Similarly, states also raise own-source funds from taxes and fees but then transfer part of those funds to local governments, which provide services directly to people and communities.

Some services, such as Medicaid, are financed primarily through federal funds while the state administers the program. For example, the federal government financed 61 percent of total state Medicaid spending in 2015 (NASBO 2016a). Of states’ own-source funds (i.e., money from states’ general funds, other state funds, and bonds), Medicaid’s share is only 16 percent, or \$203 billion (figure 2).<sup>2</sup> Nearly one-quarter of states’ own-source spending, however, goes toward K–12 education (\$309 billion), though this money is largely transferred to local school districts that directly spend the funds.

**FIGURE 2**  
**Total State Expenditures by Functional Category**  
*State and federally funded, fiscal year 2015*



**Source:** NASBO (2016a).

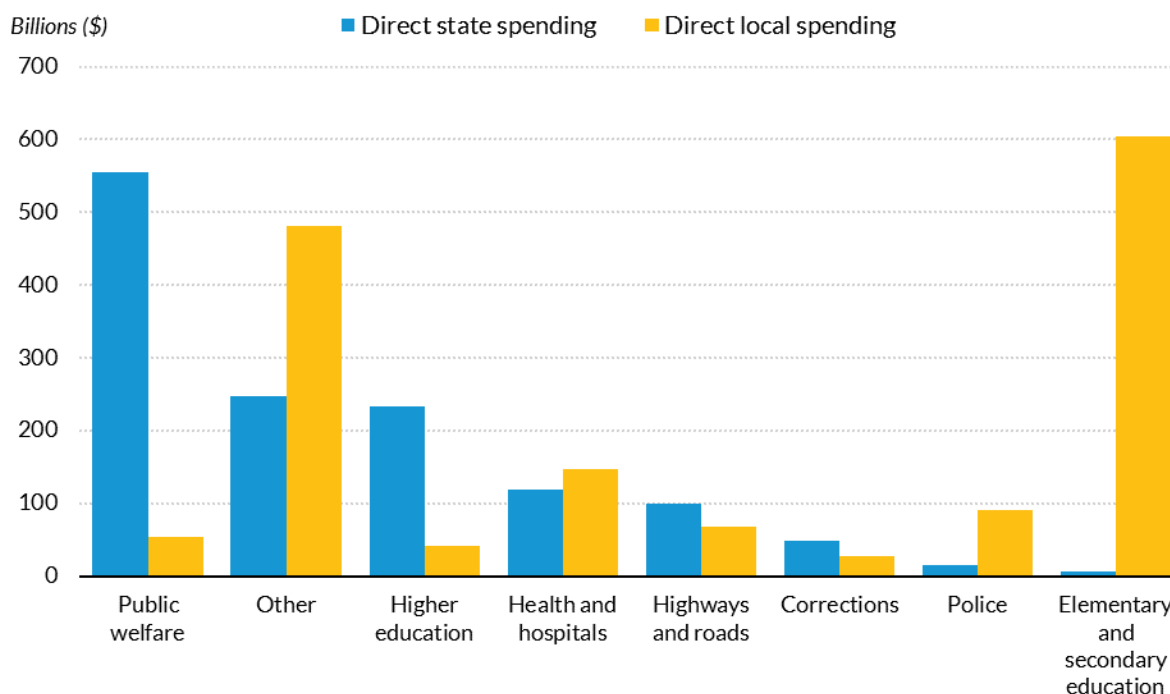
**Notes:** State-funded expenditures include the general fund, other state funds, and bonds. Totals include both operating and capital expenses. “All other” includes spending on hospitals, economic development, housing, environmental programs, health programs, the Children’s Health Insurance Program, parks and recreation, natural resources, air transportation, and water transportation.

States provide some services directly, like corrections and higher education. However, many services fall under the purview of local governments. For example, school districts typically deliver K-12 educational services directly to students, and a large share of local budgets goes toward K-12 education. Forty percent of local direct spending (\$604 billion) went to K-12 education in 2015, compared to less than 1 percent of states' direct spending (\$7 billion; figure 3). States' primary direct spending is on public welfare, which includes much of Medicaid, as well as other need-based programs like Temporary Assistance for Needy Families. Public welfare composed 42 percent of states' direct spending (\$555 billion) in 2015, compared to only 4 percent of local direct spending (\$54 billion).

FIGURE 3

### State and Local Direct General Spending

By functional category, fiscal year 2015

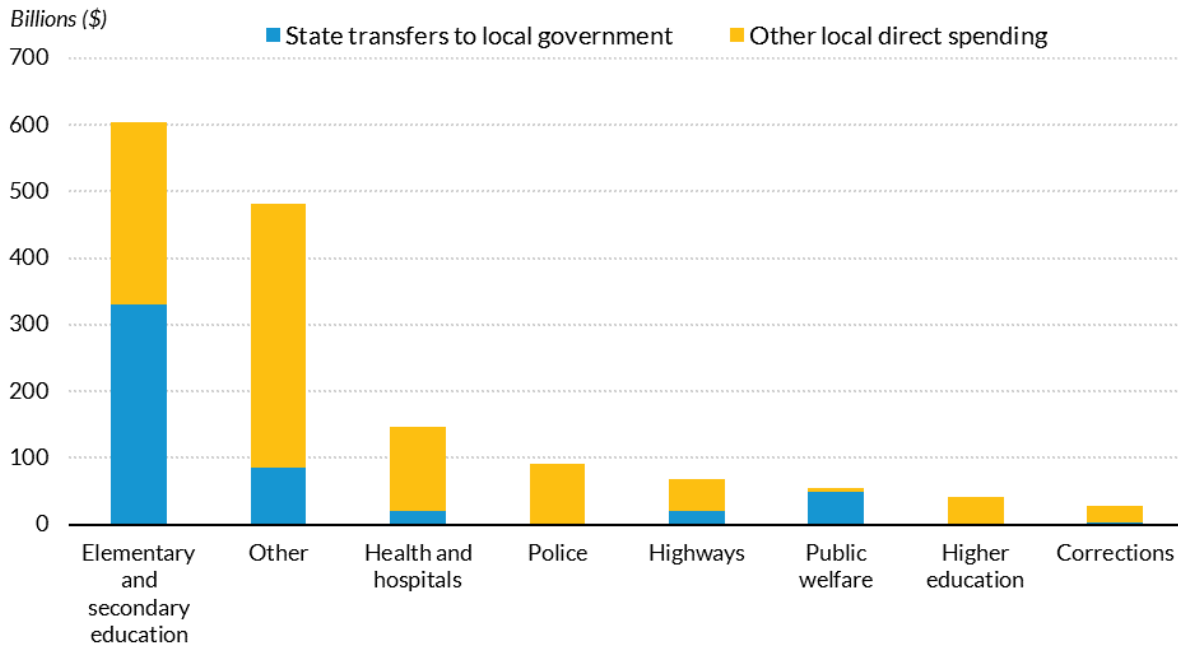


**Source:** US Census Bureau, “Annual Survey of State and Local Government Finances,” 2015, accessed via the Urban Institute, State and Local Finance Data Query System, October 20, 2017, <http://sldqs.taxpolicycenter.org/>.

**Notes:** Direct spending includes federal grants to state and local governments and counts funds as spent only when they reach their final destination. So federal grants for services states directly administer are counted as state spending, while pass-through grants to local governments are counted at the local level. General expenditures exclude enterprise activities (such as water, gas, electricity, and transit utilities), government-run liquor stores, and insurance trusts such as employee retirement and workers’ compensation systems. Unlike the National Association of State Budget Officers, the census does not track spending on specific programs. Medicaid spending is divided between the public welfare and the health and hospitals functional categories, with the majority allocated to the former.

States fund many local services through general fund appropriations. States transferred over \$500 billion, including federal pass-through grants, to local governments in fiscal year 2015, constituting about one-third of total direct local spending.<sup>3</sup> Local governments spent those funds directly on services such as K–12 education. The proportion of local spending funded by states varies dramatically by program and across states. In 2015, transfers from states to local governments constituted 55 percent of direct local K–12 spending (\$331 billion), compared with only 14 percent of direct local health and hospital spending (\$21 billion; figure 4).

**FIGURE 4**  
**Total Local Spending by Functional Category**  
*State and locally funded, fiscal year 2015*



**Source:** US Census Bureau, “Annual Survey of State and Local Government Finances,” 2015, accessed via the Urban Institute, State and Local Finance Data Query System, October 20, 2017, <http://slfdqs taxpolicycenter.org/>.

**Notes:** Includes federal grants to state and local governments. “Other local direct spending” includes federal grants provided directly to local governments as well as own-source local revenues. Federal grants that pass through states to local governments are counted under state transfers. General expenditures exclude enterprise activities (such as water, gas, electricity, and transit utilities), government-run liquor stores, and insurance trusts such as employee retirement and workers’ compensation systems. Unlike the National Association of State Budget Officers, the census does not track spending on specific programs. Medicaid spending is divided between the public welfare and the health and hospitals functional categories, with the majority allocated to the former.

Beyond governors and legislatures, courts and voters can also influence appropriation levels. Several states have constitutional provisions that lay out broad principles for K–12 education funding

related to adequacy and equity. In some states, the courts, legislature, or voters have stepped in to further define and interpret elementary and secondary funding obligations. In 1988, for example, California's voters passed Proposition 98, which sets minimum funding thresholds for K-12 and community college education—pegging educational spending to growth in attendance as well as to growth in either per capita personal income or general fund revenues (Manwaring 2005). In many states, such as Texas and Washington, courts have stepped in to mediate disputes over local educational funding.<sup>4</sup> Since the early 1990s, states have won most cases disputing the equitable distribution of public education funding but lost most cases disputing the adequacy of K-12 funding (West and Peterson 2007). These issues are often relitigated and may take years to resolve. States must find ways to meet constitutionally imposed K-12 funding obligations while providing resources for other state spending priorities and complying with balanced budget requirements (BBRs), debt limitations, and other fiscal restrictions. These priorities can be difficult to balance during economic downturns. Often, states' decisions to cut local aid pushes fiscal stress down to local governments.

## State Budgets and Revenue Volatility

Unexpected fluctuations in state revenue can compromise continuity in public services and contribute to fiscal instability. The increasing volatility of state tax revenues has made it difficult for states to accurately forecast revenues, contributing to deficit shocks and their resultant midyear spending cuts and tax increases.

### Causes of Revenue Volatility

Business cycle fluctuations are the primary cause of unexpected swings in revenue, but state tax and budget policies also contribute. Research finds that states often rely on sources of revenue tightly linked to short-term fluctuations in the business cycle.

A report from the Nelson A. Rockefeller Institute of Government and the Pew Center on the States (Boyd and Dadayan 2014) found that revenues from personal and corporate income taxes were tightly linked to stock market performance and had become more volatile since 2001. The authors found that corporate income taxes were the most volatile source of state tax revenue, followed by the personal income tax, which includes highly volatile revenue from capital gains. Mattoon and McGranahan (2012), similarly, found that tax revenues from individual investment income had become more sensitive to

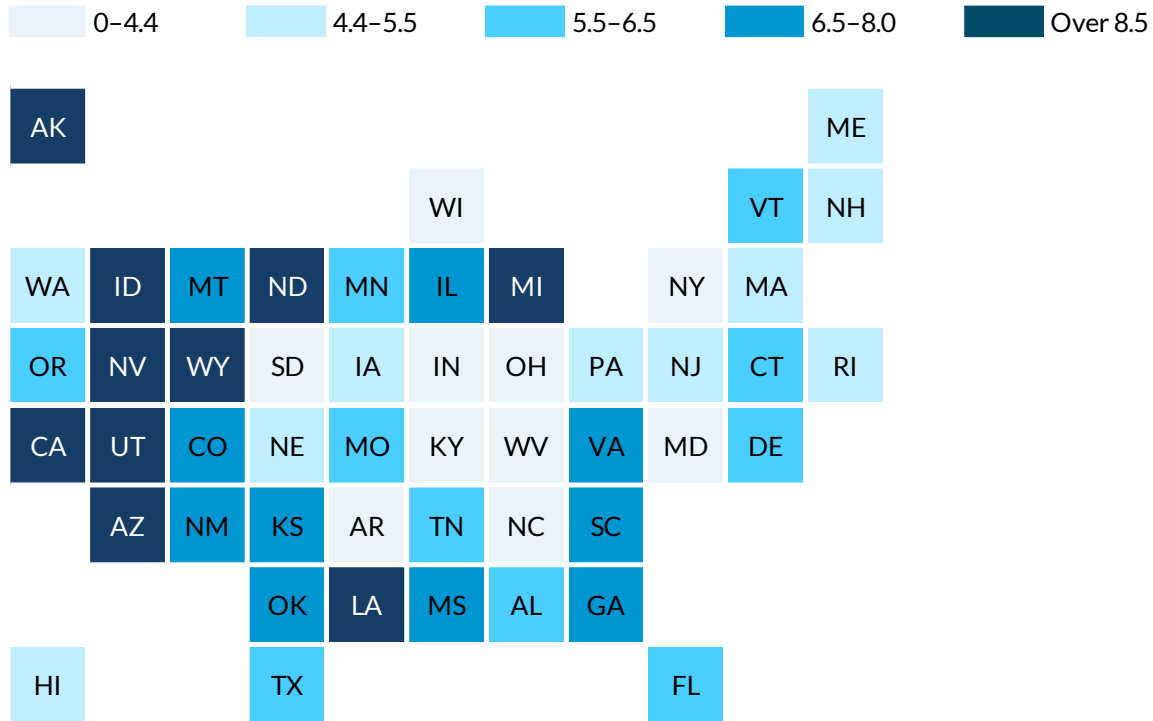
state business cycles. Tax collections based on natural resource extraction are also highly volatile. A previous joint report from the Rockefeller Institute and the Pew Center on the States (Boyd, Dadayan, and Ward 2011) concluded that plunging energy prices had created problematic fluctuations in revenue for resource-dependent states such as Oklahoma and Montana.

Examining the standard deviation in the annual percentage change in general fund revenue from 2006 to 2015, we found that the states with the most volatile revenues included Alaska (which greatly depends on severance taxes from oil, gas, and minerals) and California (which derives significant revenue from volatile personal income tax collections).<sup>5</sup> States with low revenue volatility included South Dakota and Kentucky, both of which depend more heavily on stable sales tax streams (figure 5) (Bailey and Erford 2015).

FIGURE 5

**State General Revenue Volatility**

*Standard deviation of annual percentage change in revenues, 2006–2015*



**Source:** Authors’ analysis with data from NASBO’s *Fiscal Survey of the States* reports from 2005 to 2016. See “[Archive of Fiscal Survey of the States](#),” accessed November 21, 2017.

**Notes:** Volatility is defined as the standard deviation of the annual percentage change in revenues between 2006 and 2015 (method from Boyd and Dadayan 2014). Data exclude the District of Columbia and include only general fund revenues.

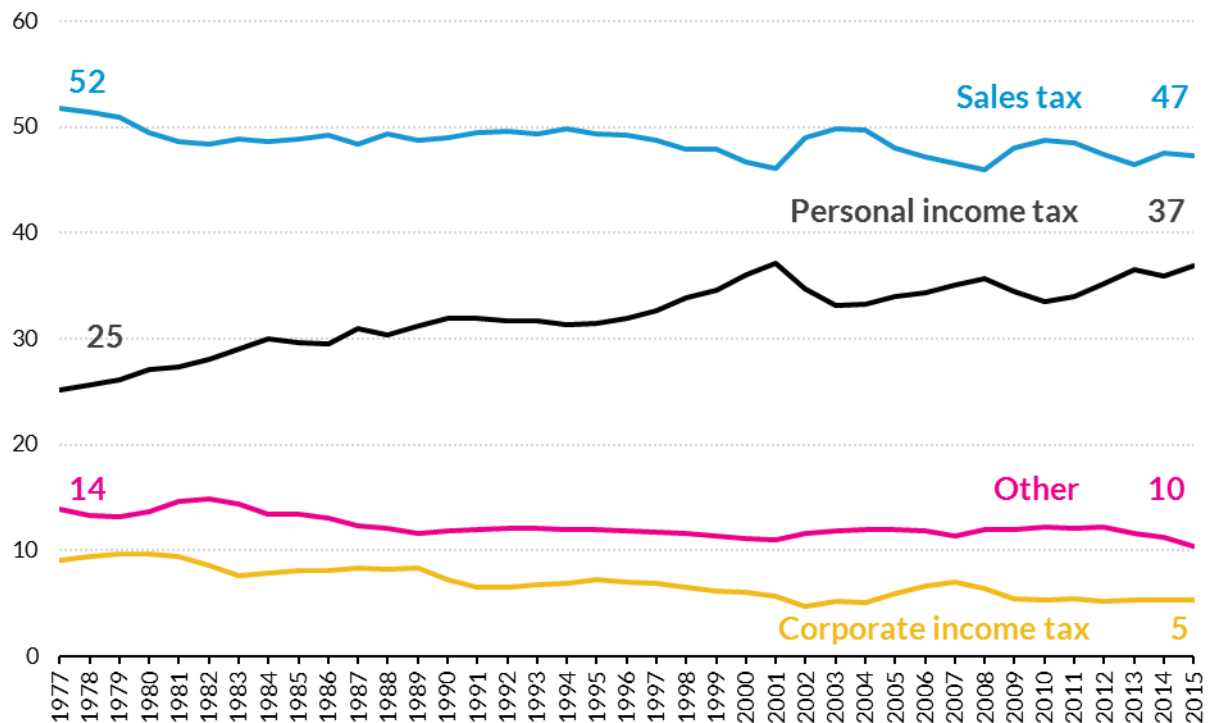
## Trends in Revenue Volatility

States have become more dependent on volatile revenue sources over time. From 1977 to 2015, the personal income tax grew from 25 to 37 percent of total state tax revenues, while revenues from the more stable sales tax declined from 52 to 47 percent (figure 6). Some evidence suggests that over the long term, state tax and budget institutions have not adapted to changing economic conditions, such as the growth in the service economy or in online sales that are exempt from state tax. Rather than expanding their sales tax base to include these new sources of consumer spending, some states instead increasingly rely on more volatile revenue sources, such as income and severance taxes.

FIGURE 6

### State Tax Revenue

Percentage of total state tax revenue, by source, 1977–2015



**Source:** US Census Bureau, “Annual Survey of State and Local Government Finances,” 1977–2015, accessed via the Urban Institute, State and Local Finance Data Query System, October 20, 2017, <http://slfdqs.taxpolicycenter.org/>.

**Note:** “Other” tax revenue includes property, license, death, gift, and severance taxes, as well as other taxes not elsewhere classified.

A greater reliance on these revenue sources, combined with an increase in their volatility, has made states more vulnerable to short-term fluctuations in the business cycle (Boyd and Dadayan 2014;

Mattoon and McGranahan 2012). States' revenue forecasting errors have increased because of this volatility.

## **Fiscal Institutions and Revenue Volatility**

Some research has concluded that states will be unlikely to reduce forecasting errors by shifting their revenue mix to less volatile revenue sources. Boyd and Dadayan (2014) found that, absent eliminating the corporate income tax altogether and ramping up regressive sales taxes, volatility and forecasting errors would likely persist.

However, policy can help. Fiscal institutions such as budget stabilization funds (BSFs) can mitigate the negative effects of short-term revenue volatility by helping states save for a rainy day and thus preventing inefficient budget scenarios—for example, cutting school teachers every time revenues dip, only to rehire them shortly thereafter, allowing infrastructure to crumble, or increasing taxes sharply during times of economic stress. Different institutions can also work together to mitigate volatility. Researchers have proposed funding state BSFs with volatile capital gains revenues during good times and have suggested that the federal government could adjust federal grant formulas to provide more resources during recessions (Mattoon and McGranahan 2012). Research shows that BSFs create a net increase in state savings (Hou and Brewer 2010; Knight and Levinson 1999). Bohn and Inman (1996) found that BBRs contributed to higher state surpluses, which states then deposited into BSFs to smooth unexpected budget deficits.

Moreover, revenue volatility is not the only source of state fiscal stress. An analysis from Moody's Investors Services (2016) defined fiscal stress as a combination of high revenue volatility, few available reserve funds, and limited fiscal flexibility caused by fiscal institutions (e.g., supermajority voting requirements) or high fixed costs (e.g., pensions). Moreover, structural challenges and underlying economic changes have slowed state revenue growth over time. In fiscal year 2016, 25 states collected less revenue than budgeted. That number is the highest it has been since the Great Recession of 2008 (NASBO 2016b), suggesting that states are still struggling to fill budget gaps despite a recovering economy. BSFs can smooth cyclical, short-term fiscal challenges but not structural ones, where the long-term revenue trend does not match the expenditure trend (Francis and Sammartino 2015).



## Other Types of Volatility

Revenue volatility is closely related to other forms of volatility that affect states, including economic volatility and spending volatility. Economic volatility refers to swings in the business cycle, gross domestic product (GDP), employment, or other economic outcomes. Economic swings drive state revenue volatility because they affect the tax base and therefore revenue collections.

The same economic forces that reduce state revenue collections often raise demand for public services. During economic downturns when people lose their jobs, unemployment insurance payments increase, as does demand for other social services (Dorn 2008; Dorn, Smith, and Garrett 2005; Vroman 2010). Thus, demand for public spending often increases exactly when revenues are tight. Annual and biennial balanced budget rules force states to make hard trade-offs, either cutting spending or raising taxes. Sometimes the federal government steps in to provide relief and prevent cuts (Dorn 2009). Recently, states have been more likely to balance budgets by enacting spending cuts than by raising taxes (Gordon 2012c; McNichol 2012).<sup>6</sup>

## Budget Influencers

All three branches of state government, as well outside actors such as the electorate, unions, and federal, local, and neighboring governments, mold the budget. Moreover, political institutions such as term limits, the line-item veto, and supermajority voting rules can affect political actors' behavior and level of influence. Research on different actors' influence on the budget process comes from fields including political science, economics, and public management. While there is little research on how specific actors influence fiscal outcomes, in a survey of state agency directors, Ryu and coauthors (2008) found that governors and legislators drove the budget process, with state agencies, executive budget offices, and legislative staffers also wielding influence. Other actors, such as clientele groups lobbying for specific programs, were of secondary influence.<sup>7</sup>

Other studies from a variety of fields have concluded that outside influences, such as court decisions and voter initiatives, can significantly change budget allocations. For example, state courts often define and enforce equity or adequacy standards in the financing of K-12 education.<sup>8</sup> They can also weigh in on questions regarding spending priorities and the constitutionality of legislation. The federal government, similarly, influences state budgets by providing grants and matching funds, while neighboring local and state governments can affect tax rates and spending levels through competition with one another. Moreover, limited local tax capacity or an economic downturn can sometimes require

state intervention at the local level. Executive, legislative, and judicial institutional actors as well as external influencers are more likely to be more successful at intervening in the budget process at different stages (box 1).

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## BOX 1

### The State Budget Cycle

**Step 1:** The executive budget office advises state agencies on how to submit appropriation requests, setting budgeting baselines and articulating policy priorities.

**Step 2:** State agencies submit requests to the governor, and the executive budget office prepares the governor's budget based on those requests and the state's revenue estimates.

**Step 3:** The governor reviews and finalizes the executive budget office's recommendations and submits the proposed budget to the legislature.

**Step 4:** The legislature holds budget hearings with state agencies and other stakeholders, considers the governor's budget proposal, and passes its own version of the budget, which it then sends to the governor for a final signature.

**Step 5:** The governor signs or vetoes the legislature's budget, potentially exercising line-item veto power to reject specific spending provisions.

**Step 6:** What if the state budget is late? Seven states have established statutory procedures for when no budget has been passed by the beginning of the fiscal year. In Missouri, for example, the governor may call a special session, whereas in Wisconsin the state continues with the previous year's appropriations until a budget is enacted.

Thirty states and the District of Columbia go through this (or a similar) budget cycle annually, while the rest (such as Texas and Oregon) budget biennially (every two years).

**Source:** NASBO (2015).

**Note:** These are common steps, but exceptions apply. For example, in Texas both the governor's office and the independent Legislative Budget Board guide state agencies, and the governor plays a less influential role in early stages.

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## The Executive Branch

State budgets typically originate in the governor's office, making the governor and the executive branch agenda setters in budget negotiations. The executive branch has opportunities to influence the budget in both early and later stages of the budget cycle.

## THE GOVERNOR

Case studies, surveys, and quantitative analyses show that governors influence state budgets (Bernick 2016). In their book, *The Power of American Governors*, political scientists Kousser and Phillips (2012) concluded that governors exerted more influence over the budget than over other policy areas. The constitutional requirement to pass a budget, they suggested, places more pressure on the legislature to avoid a costly stalemate, providing an incentive for the legislature to negotiate and concede to the governor's demands.

Do a governor's personality and leadership style affect budget outcomes? Although intuitively this seems plausible, these causal variables are difficult to measure, and it is hard to disentangle the personality traits that influence behavior. In one case study, however, Hale (2013) found that Delaware Governor Pete du Pont achieved long-term fiscal goals through his personal leadership style, which included setting clear priorities and pursuing bipartisan fiscal solutions.<sup>9</sup> Du Pont also pursued constitutional amendments that imposed fiscal restraints on future governors and legislatures. Hale concluded that governors like du Pont have traits that can influence "big picture" questions of fiscal sustainability and help states adopt long-term reforms. However, capturing or enumerating these traits, and testing their effect across states, is exceedingly difficult.

Certain political conditions and institutions can dampen or enhance governors' influence. Goodman (2007) found that when the legislature had access to independent budget information (such as through an independent legislative budget agency), or when the state used a consensus revenue forecasting process, governors had less influence. The addition of pork barrel appropriations (Goodman 2007), line-item veto power (Goodman 2007; Lauth and Reese 2006) or a nonprofessional legislature (Kousser and Phillips 2012), however, strengthened gubernatorial influence over the budget. Goodman (2007) conducted a mixed-methods study examining the relationship between perceptions of gubernatorial influence among executive and legislative budget analysts, and variables such as the line-item veto and pork barrel appropriations from the legislature. While Goodman originally hypothesized that pork barrel spending (that is, appropriations for local projects primarily intended to bring funds into a lawmaker's electoral district) would dampen governors' power, his study revealed that pork barrel negotiations were perceived as a bargaining tool in negotiations. If the governor was willing to support legislators' projects, then the legislature would be more likely to support the governor's agenda. Pork barrel projects may be included in exchange for supporting the governor's budget.

Kousser and Phillips (2012) found that 42 percent of the budgets adopted by professional legislatures had been passed late, compared with only 3 percent by citizen legislatures, suggesting that citizen legislatures concede more readily to governors' demands. That is, citizen legislatures may incur

greater costs during budget stalemates than professional legislatures, making them more likely to adopt governors' proposals. Most governors also have line-item veto authority, allowing them to reject specific provisions or funding amounts proposed in their legislatures' budgets.<sup>10</sup> Goodman (2007) and Lauth and Reese (2006) found that the line-item veto allowed the governor to bend the budget closer to his or her policy preferences in the final stages of the budget cycle.

Term limits can also influence governors' behavior. Besley and Case (1995) found that when Democratic governors were under binding term limits, government spending and taxes increased during the lame duck term. However, states with term limits did not spend more overall than other states. This suggests that term limits contributed to a fiscal cycle wherein Democratic governors temporarily keep spending down before elections only to let it rise during the lame duck term. While Republican governors did not raise taxes or spending in the lame duck term, they were more likely to reduce the minimum wage in that period. Pressure from electoral competition, which governors in their lame duck term do not experience, may contribute to these outcomes. Rogers and Rogers (2000), in their study of state expenditures and revenues from 1950 to 1990, found that tighter electoral competition in the governor's race led to smaller government.

#### THE EXECUTIVE BUDGET AGENCY

The executive budget agency advises the governor on budget issues, guides state agencies on how to prepare funding requests, and drafts the governor's proposed budget. In many states, the executive budget agency may also be responsible for producing revenue forecasts (box 2). Thurmaier and Gosling (1997), in a case study of budget offices in Iowa, Minnesota, and Wisconsin, found that executive budget offices have shifted to a more policy-oriented role, positing that this may be because governors are addressing increasingly complex state fiscal challenges.

During budget preparation, the executive budget agency guides and restricts agencies' appropriations requests in line with the governor's priorities. For example, when agencies submit requests for funding, the governor may require them to adhere to a fixed-dollar ceiling or ask them to rank program priorities. Surveys of state budget offices between 1975 and 1990 reveal that executive budget guidance became more common over that period (Lee 1992). In 1975, the majority (59 percent) of states did not provide agencies with a budget ceiling during appropriations requests. By 1990, however, nearly 90 percent of states provided some sort of budget ceiling (Lee 1992). By 1990, it was common for governors to ask state agencies to rank budget priorities, include program improvements in appropriations requests, adhere to a current services budget, and address the governor's policy

priorities (Lee 1992). In 2015, the executive budget agency in all states and the District of Columbia provided agencies with some budget instruction (NASBO 2015).

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## BOX 2

### The Executive Branch and Revenue Forecasting

Revenue forecasting takes place early in the budget cycle, since a revenue estimate is required to understand the resources available for spending priorities.

Stakeholders' involvement in revenue forecasting varies by state, but the executive branch typically plays a central role. The executive budget agency is involved in revenue forecasting in 31 states, and the governor's office is directly involved in eight states. Twenty-five states have a consensus forecasting process, in which the legislature, executive office, and other budget consultants provide input into the final revenue forecast.

In Massachusetts, for example, the executive budget office develops the budget collaboratively with the legislature. The state also holds annual "consensus revenue hearings" that are chaired by leaders from the executive budget agency as well as from the house and senate budget committees. During the hearings, the executive and legislative leadership hear testimony from budget experts and economists regarding revenue projections and adjust the state forecasts accordingly.

Source: NASBO (2015).

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## The Legislative Branch

Although the budget typically originates in the executive branch, the legislature is responsible for reviewing and amending the governor's proposal and passing its own proposed budget. The final budget bill the governor must either sign or veto ultimately comes out of legislative negotiation. In some states, the legislature is also involved in revenue forecasting.

### THE LEGISLATURE

The legislature is a powerful actor in the budget negotiation process. How do legislators make budgeting decisions, and how do they set priorities? Stanford (1992) reviewed four years of Florida state legislative hearings and concluded that legislators made strategic decisions about budget control, management, planning, and funding. Researchers and the public often assume that budgeting is incremental, with legislatures and agencies building on previous years' budgets to formulate current

appropriations. Stanford, however, found that legislators engage in calculated and strategic decisionmaking, and that these legislative deliberations influenced outcomes.

Moreover, research shows that legislatures exercise more influence when they have more resources and information at their disposal. Goodman (2007) found that legislatures' influence increased, relative to governors', with access to independent budget information and analysis. Kousser and Phillips (2012), similarly, found that professional legislatures had more leverage in budget negotiations than citizen legislatures, although their enhanced negotiating power can result in lengthier stalemates with the governor.

Staff support also affects budget outcomes. Ryu (2011) evaluated the relationship between legislative staff support and year-to-year changes in state spending.<sup>11</sup> Large spending changes from one year to the next represent deviation from expected, incremental spending changes. These "budget punctuations," Ryu suggested, occur when legislators lack access to full information and must make large adjustments to compensate for previous poor information. When staffing support for state house members increases, Ryu found, fewer budget punctuations occur. Staff support, he proposed, also enhanced members' ability to process information, smoothing the budget process and reducing dramatic adjustments.

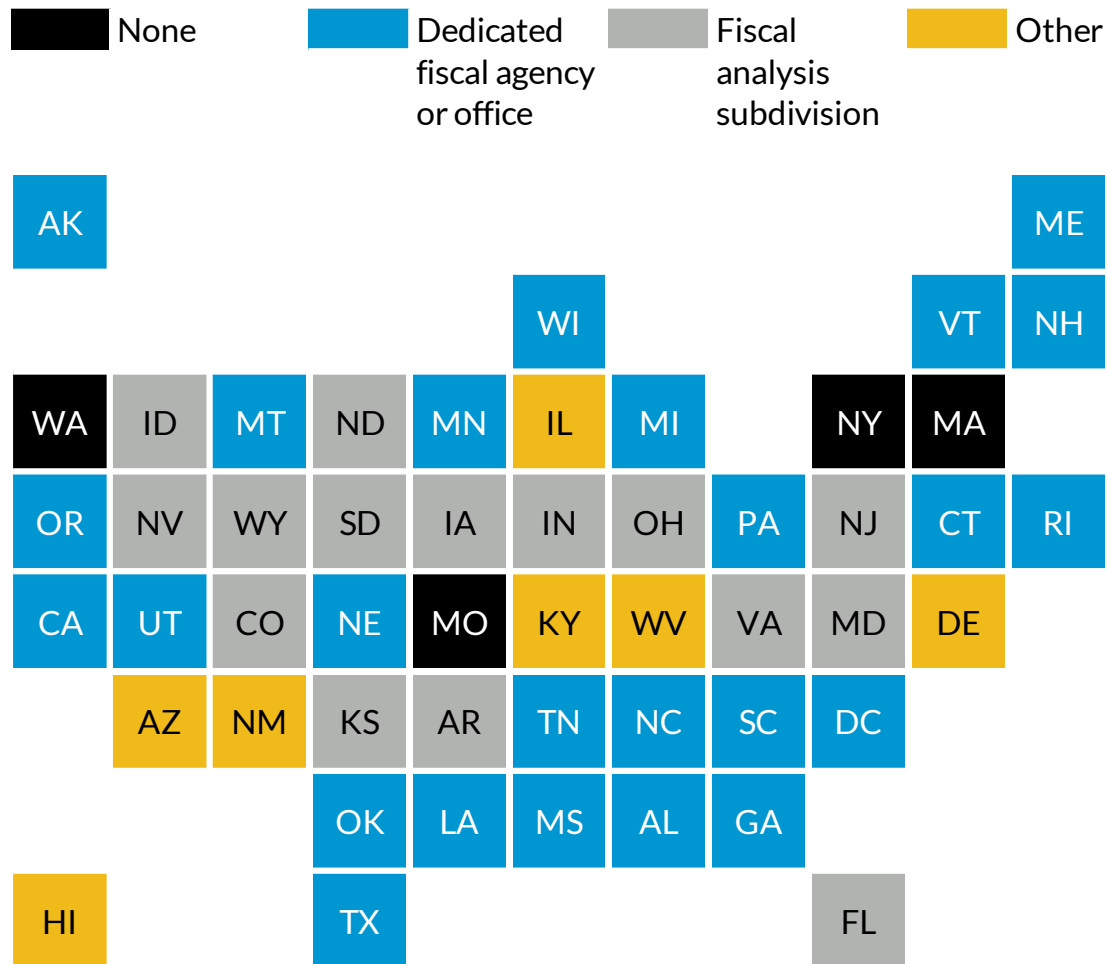
#### THE LEGISLATIVE BUDGET AGENCY

Legislatures typically receive analytical support from a separate legislative budget office that produces fiscal notes for specific bills, helps estimate revenue, and analyzes the governor's proposed budget. Legislative budget agencies are nonpartisan and often provide technical and staff support to the legislative appropriations and revenue committees. Budget office staff may also testify at legislative hearings, along with the state agencies submitting funding requests.

Forty-six states and the District of Columbia have budget offices that conduct fiscal and economic analysis for the legislature (figure 7). Twenty-five are independent offices dedicated exclusively to fiscal research. Examples include the Legislative Fiscal Office in Louisiana and the Legislative Budget Board in Texas. Fifteen offices are housed within a larger legislative research agency. For example, the Arkansas Bureau of Legislative Research is a broad legislative research office, which also houses the state's Legislative Fiscal Service Division. Seven states organize their fiscal analysis functions in other ways, such as establishing fiscal analysis committees or commissions housed within the legislature itself, or grant those duties to the state auditor or the comptroller's office. Committees housed within the legislature usually employ nonpartisan staff and directors but are typically governed directly by members of the legislature. New Mexico, for example, has the Legislative Finance Committee consisting

of eight senate members and eight representatives and supported by a nonpartisan staff.<sup>12</sup> For a full list of independent legislative offices, see appendix B.

**FIGURE 7**  
**State Legislative Fiscal Offices**  
 2017



**Sources:** Authors' categorization and compilation from National Conference of State Legislatures, "State Legislative Fiscal Offices Sites," March 31, 2016, accessed June 2, 2017, <http://www.ncsl.org/research/fiscal-policy/state-legislative-fiscal-offices-sites.aspx>, and Katherine Barrett and Richard Greene, "State Budget Sources," Volcker Alliance, October 17, 2016, accessed June 2, 2017, <https://www.volckeralliance.org/publications/state-budget-sources>.

**Notes:** "Fiscal analysis subdivision" refers to a dedicated budget team within an independent legislative research agency. "Other" includes arrangements wherein a fiscal analysis team is part of a committee or a commission (such as in West Virginia, whose Budget and Fiscal Affairs Division is within its joint budget committee) or wherein another agency like the auditor or the comptroller's office performs the analysis. For more information, see appendix B.

Hoffman (2006), in a survey of state budget actors, found that the influence of legislative budget analysts increased with the professionalism of the office as well as with its visibility in the budget process. Legislative budget analysts provided recommendations to legislators and helped set the legislative budget agenda. A 2015 best-practice review of state budget processes from the Center on Budget and Policy Priorities (McNichol, Lav, and Masterson 2015) concluded that fiscal notes, when prepared by a nonpartisan analyst's office, improved state decisionmaking. Well-prepared fiscal notes can help legislators understand the cost of legislation and consider alternatives that may be more efficient. Notes can also show legislators the effect of legislation on local government finances or on residents in specific income strata (McNichol, Lav, and Masterson 2015). In 2015, 38 states prepared fiscal notes for nearly all bills, and 33 states assigned fiscal note preparation to a nonpartisan legislative agency (McNichol, Lav, and Masterson 2015).

## The Judicial Branch

While courts do not participate in the formal budget process, they often enforce constitutional funding requirements and decide questions of adequacy and fairness. Courts' influence on budget outcomes is sometimes referred to as rights-based budgeting, since courts mandate funding standards based on rights to adequacy, fairness, and humane treatment enshrined in states' constitutions (Ryu 2014). Some literature suggests that programs subject to litigation are likely to receive more funding.<sup>13</sup> Bureaucratic administrators may use court-ordered adequacy and funding mandates to demand additional funding for their programs.

For example, states have dealt with correctional spending lawsuits related to overcrowding and treatment of inmates. Examining the research, Ryu (2014) found that litigation produced slightly more state and local spending on corrections, especially on capital projects. Budget decisionmakers, however, may stall compliance for years if they do not agree with a court's policy decision. Delayed compliance may also be the result of insufficient information-processing capacity. Legislators may exclude court-mandated budget requirements from their decisionmaking until necessary, which may be years after a court has handed down its mandate.

Thus litigation can, but doesn't always, result in more funding for a program as evidenced by research on K-12 finance (Kenyon 2007). As of 2015, 46 states had experienced lawsuits challenging state K-12 education funding.<sup>14</sup> The issue has been litigated prominently in states such as California, Kansas, New Jersey, New York, Texas, and, recently, Washington (Darden 2014; Underwood 2015).<sup>15</sup> Despite the frequency of lawsuits, empirical research has been mixed on whether court-mandated



reforms improve fiscal disparities or funding for K–12 education (Chingos 2017; Kenyon 2007). Often whether funding levels increase or are equalized across districts depends on the details of both the lawsuit and how it is implemented.

Between 1990 and 2005, most school finance court cases challenged the adequacy of K-12 education—that is whether school districts have adequate funding to provide an appropriate education as mandated in the state constitution—rather than the equity of state funding. Despite successes for plaintiffs over this period (West and Peterson 2007), research has not consistently been able to conclude that court-mandated school finance reforms affect either funding for education or student achievement outcomes (Kenyon 2007).

A paper by LaFortune, Rothstein, and Schanzenbach (2016), however, found that school finance adequacy reforms increased funding to low-income school districts and caused improvements in student achievement between 1990 and 2012.<sup>16</sup> A paper by Corcoran and Evans (2015), similarly, concluded that states subject to litigation have indeed increased education expenditures relative to states without litigation pressure. In part, the effects of court decisions on funding levels and equity depends on each state’s implementation of those mandates.

Equity and equalization—that is, having equal spending in each district—had been the goal of earlier court cases, like the *Serrano v. Priest* case in California in 1971. State courts have, in several cases, determined that fiscal disparities violated either states’ constitutional equal protection clauses or another requirement. Most states have policies intended to close the gap between wealthy and poor districts, but with mixed success (Chingos and Blagg 2017).<sup>17</sup> Kenyon’s (2007) review of the research found that litigation did effectively reduce per pupil funding disparities within a state. Evans, Murray, and Schwab (1999), in their review of the literature, also found that court-mandated reforms reduced within-state inequality, typically by increasing spending for poor schools and increasing taxes (rather than by reducing spending for other services).

Schools can adopt equalization schemes that, because of their implementation, “level up.” That is, they lead to higher spending because states are using funds to equalize low-wealth districts but are not necessarily limiting other districts’ ability to set their own spending. Alternatively, implementation can lead states to “level down” by limiting how much higher-wealth districts can spend or introducing a tax or financing rule whereby a certain amount of local funding is used to help other districts. Hoxby (2001) found that states had difficulty achieving full equalization. This was because hitting unconstrained spending targets increases states’ costs unless states’ equalization schemes limited the funding decisions of higher-wealth districts. Hoxby found that a school district’s spending was often related to

either (1) the tax price it faced or (2) how much of the last dollar it raised went to the district versus to other districts.

The judicial branch influences, but can also be influenced by, the state budgeting process. Douglas and Hartley (2003) asked whether the budget process influenced court decisions, since the legislative and executive branches wield primary power over funding allotted to judicial institutions. They found that judicial independence had sometimes been compromised by interbranch budget conflict. The legislature was more likely than the governor to use budgetary powers to influence court decisions, primarily when litigation arose regarding the constitutionality of specific statutes. Judicial actors also experienced pressure from the legislative branch to increase court-generated revenues.

## Outside Influencers

Actors outside of state government, such as client groups advocating for their programs, the electorate casting ballots in referenda, or even neighboring states, can influence the budget process. Not all external actors wield the level of influence popularly ascribed to them, however.

### BUSINESSES AND PUBLIC INTEREST GROUPS

Businesses, industry groups, and public interest groups show up at state capitols across the nation to lobby for their interests. Do their actions influence state budgets? Literature shows that interest groups do influence state budget and policy outcomes. For example, Klarner, Mao, and Buchanan (2007) found that business interest groups influenced state policies about Temporary Assistance for Needy Families. Policies that had a direct relationship to business interests, such as generosity of state-provided benefits like TANF, were significantly influenced by business groups. Similarly, Callaghan and Jacobs (2016) found that industry lobbying had a strong negative effect on state decisions to expand Medicaid under the Affordable Care Act.

Public interest groups, however, also have influence. For example, Callaghan and Jacobs (2016) found that public interest group advocacy had a positive effect on Medicaid expansion decisions. Tandberg (2010) found that the presence of higher education interest groups led to higher spending on education. Tandberg and Ness (2011), in their longitudinal analysis of 50 states from 1988 to 2004, found that the density of higher education interest groups in a state was associated with higher capital expenditures for higher education. However, private interest groups may still wield more influence. In a study of state blue ribbon commissions, Ritchey and Nicholson-Crotty (2015) found that private interest groups bore more influence on blue ribbon recommendations than did public interest groups.

## THE FEDERAL GOVERNMENT

Federal programs can have a large influence on state budgets. Federal transfers make up nearly one-third of state budgets, and the federal government incentivizes spending on certain priority areas by offering federal matches (NASBO 2016a). States must also comply with unfunded mandates from the federal government, and there are costs associated with federal regulatory compliance. The Congressional Budget Office annually estimates the cost of intergovernmental mandates to state and local governments. Since 1996, the Congressional Budget Office has identified 15 laws, including minimum wage laws, food stamp administration, and child welfare programs, that require states to spend more than the statutory threshold for intergovernmental mandates (\$77 million annually in 2016).<sup>18</sup>

These unfunded mandates, as well as matching grants, shift spending priorities at the state level. Fifty-five percent of federal grants to state and local governments currently go to health care, predominantly to Medicaid.<sup>19</sup> These federal grants can affect overall spending. Rogers and Rogers (2000) found that states with more federal grant funding, as a share of general revenues, ran larger budget deficits both in absolute and per capita terms. This phenomenon, where expenditures increase when funded by grants or other external sources, is often called the flypaper effect. In another example, Abrams and Dougan (1986) found that state and local spending rose by \$2 for every \$1 increase in federal aid, although the study and much of the literature have failed to account for problems associated with endogeneity or the possibility that causality might be in the other direction.<sup>20</sup>

The federal government also engages in countercyclical spending that buoys state budgets during recessions, such as with the American Recovery and Reinvestment Act of 2009 (ARRA). Case studies on several states, including Georgia, Massachusetts, and Virginia, reported benefits from ARRA funding during the recession (Conant 2010a, 2010b; Gordon 2012b; Lauth 2010; Wallin and Snow 2010).<sup>21</sup> Carlino and Inman (2013) found that, among ARRA transfers to state governments, increased match rates for welfare program spending stimulated state GDP growth more effectively than direct funding for infrastructure projects, since welfare programs provided money directly to low-income households.

Fluctuations in federal funding affect states, since states are required to balance their budgets each year (Pew Charitable Trusts 2015b). A decline in federal transfers can leave a budget gap that states must fill through either alternative revenue sources or spending cuts. In 2014, the Congressional Research Service reported that states relied more on federal funds than at the beginning of the Great Recession in 2008 (Dilger 2014). Decisions on federal funding with respect to Medicaid and other transfer programs will continue to have a real effect on state budgets.

## NEIGHBORING STATES

Research has shown that neighboring states compete on tax and spending measures. If a neighboring state is taxing less and spending more, the home state may adjust its tax and spending levels to match. Besley and Case (1992) evaluated how tax rates in neighboring jurisdictions affected tax rates at home. They found that people were less likely to reelect sitting representatives if tax rates in neighboring jurisdictions were lower. Because of this electoral competition, policymakers practiced “yardstick” budgeting, benchmarking revenue decisions to other states.

In their study on state spending from 1970 to 1985, Case, Rosen, and Hines (1993) found that this effect applies to spending as well. Every dollar of additional spending in demographically, economically, and geographically similar states (i.e., “neighbors”) increased a state’s own spending by 70 cents. At the micro level, this effect was true for categories of spending, such as health and human services, as well as categories of revenue. Rork (2003) found that, between 1967 and 1992, tax rates on cigarettes, motor fuel, and corporate income were affected by tax rates in other jurisdictions, generating a competitive effect. This effect was not present, however, for personal income or sales taxation.

## PUBLIC SECTOR UNIONS

In the same way that business interests lobby on regulatory and tax issues, public sector unions lobby to influence state and local spending decisions. In recent years, some commentators have attributed state budget deficits and pension crises to the influence of public sector unions on the political and budget process (Greenhut 2009). Critics point to practices such as pension spiking, whereby a public employee can significantly increase pension payments by working overtime in the final years of service, as evidence that public unions are detrimental to state budgets.<sup>22</sup> In a longitudinal analysis from 1957 to 2011, Lawrence, Sherk, and Dayaratna (2016) of the Heritage Foundation found that mandatory public unionization increased both compensation for public employees and municipal government costs.<sup>23</sup> But this may vary by state. The authors conducted synthetic control analyses (where a state undergoing a policy change is compared with a constructed version that did not experience the change) and found that public unionization led to higher government costs in New York and New Jersey but had no discernable effects in Ohio or South Dakota.<sup>24</sup> Anzia and Moe (2015) concluded that public unionization raised costs for government, particularly in postemployment benefits.

However, in other research, the connection between public sector unions and adverse budget outcomes is less clear. Researchers at the Institute for Research on Labor and Unemployment at the University of California at Berkeley (Allegretto, Jacobs, and Lucia 2011) found that public sector unions were not responsible for fiscal deficits in the most recent recession. Rather, the authors’ regression

analysis showed that the decline in housing prices was the primary reason for deficit shocks at the state level. This is consistent with some prior research at the local government level. O'Brien (1994) found that public fire and police sector union political activity led to higher departmental spending at the local level but had no effect on overall municipal spending. It therefore may have crowded out other municipal spending.

O'Brien additionally found that departmental spending increases typically stemmed from higher levels of employment rather than from higher compensation. Although either higher employment or higher compensation per employee could lead to more spending overall, O'Brien's findings counter the argument that public unions inflate government workers' salaries. Devinatz's (2012) literature review on the topic rebutted many popular claims about the negative effect of public unions, pointing out that there is little relationship between states with fiscal crises and public sector union density.

These competing arguments can have real effects on budget negotiations in many states. In 2011, for example, Wisconsin governor Scott Walker signed into law a provision restricting collective bargaining in the public sector, citing the need for austerity measures to address state budget woes (Cummings and Kelly 2012).<sup>25</sup> Comparing private-sector and public-sector wages, however, is complex, and should account for differences across sectors in workers' skill level and benefits packages. Controlling for these factors, Gittleman and Pierce (2011) found that compensation costs are 3 to 10 percent higher for public sector workers than private sector workers. Reilly (2013) modeled total lifetime compensation for public and private employees and found that, when postretirement benefits are taken into consideration, public workers have higher lifetime compensation than private workers. However, while comparing compensation packages, it is also important to bear in mind that many state workers are not eligible for Social Security which covers nearly all private sector workers (Gale, Holmes, and John 2015; Nuschler, Shelton, and Topoleski 2011).

Are public unions responsible for this gap? When examining the gap in wage premiums from union participation, Bahrami, Bitzan, and Leitch (2009) found that workers in private sector unions obtained higher wage benefits from union participation than workers in public sector unions. In her literature review on public sector unionization written for the Mercatus Center, Norcross (2011) highlighted these mixed empirical findings and pointed to the need for more research that considers how public sector unions act as political interest groups in addition to collective bargaining units.

## RATING AGENCIES AND BOND MARKETS

Although rating agencies do not see themselves as disciplinary agents, in practice, states often see bond ratings and maintaining access to bond markets as a reason to practice fiscal restraint. For example,

Illinois finally passed a budget in 2017 after a two-year stalemate that was caused partly by the fear of being further downgraded by rating agencies.<sup>26</sup> States try to ensure a high rating from bond agencies because pensions and institutional investors have portfolio requirements that drive the markets.

Research has found that state fiscal institutions can affect credit ratings. Revenue and debt limits are associated with higher borrowing costs, whereas expenditure limits and stricter BBRs are associated with lower borrowing costs. In their analysis of state general obligation bonds issued from 1990 to 1997, for example, Johnson and Kriz (2005) found that investors and bond raters took fiscal institutions into account when assigning state governments credit quality ratings.

Lowry and Alt (2001), in an analysis of bond yields between 1973 and 1996, found that stricter BBRs (i.e., those that prevented a deficit carryover into the following fiscal year) reduced borrowing costs. Stricter BBRs provided investors with clear information about the expected course of government action should a deficit occur, allowing outsiders to “interpret noisy signals” and incentivizing state policymakers to act in accordance with those expectations.

Poterba and Rueben (1999) found that states with tax limitations faced borrowing costs 15 to 20 percent higher than a state without tax limitations. Revenue limitations may restrict states’ ability to pay principal and interest on the debt in the future. States with weak antideficit rules had borrowing costs 10 to 15 percentage points higher than states with strict rules. Thus, rating agencies may consider fiscal institutions when assigning credit ratings, and the bond market will respond appropriately by applying higher or lower interest rates to state bonds. At the Sixth Annual Municipal Finance Conference, participants hypothesized that states respond to pressure from rating agencies to avoid either losing a top rating or, if in danger of having their debt downgraded to junk status, losing access to large bond holders like public pension funds. Thus, while current research shows some evidence that rating agency rankings can be a disciplinary device in state budgeting, the relationship is likely more complicated than what has been examined and deserves more investigation.

## **Political Conditions and Institutions**

Political conditions and institutions can affect how budget actors behave and their influence in the budget process.

## DIVIDED GOVERNMENT AND PARTY POLITICS

Divided government occurs when the majority party in the legislature is different from the governor's party (split-branch government), or when the legislative houses are split between two parties (split-legislative government). Divided government can affect fiscal outcomes and the influence of different budget actors. For example, Alt and Lowry (1994, 2000) found that unified governments responded quicker to deficit shocks than divided governments. Similarly, Poterba (1994) found that strict BBRs were more effective at curtailing deficits under unified than under divided governments. Besley and Case (2003), in an analysis of 48 states from 1950 to 1999, found that the line-item veto sizably reduced per capita spending, but only under divided government.<sup>27</sup>

Lowry, Alt, and Ferree (1998) found that, under unified government, voters held the party in power more accountable for fiscal outcomes. Overall, Republican gubernatorial candidates were more likely to lose votes if their party was responsible for unexpected increases in the state budget. Democratic candidates, by contrast, experienced voter gains from enacting small increases in the budget. However, institutions influence outcomes. Independent of the previous findings, under unified government, the governor's party lost legislative votes if it didn't maintain fiscal balance. In states with "no carryover" rules (i.e., strict BBRs), even Democrats lost votes in the legislature if the governor presided over a deficit. Rogers and Rogers (2000) found that electoral competition, measured by the closeness of the gubernatorial race, led to smaller government. However, this effect was more pronounced when revenues were measured as a share of personal income, rather than per capita, pointing to challenges with measurement and research design.

Research shows how party makeup can influence fiscal outcomes in many instances. Alt and Lowry (2000) found that Republican governments were more likely to respond to deficit shocks by reducing spending than were Democratic governments. Rogers and Rogers (2000) found, relatedly, that a larger share of Democrats in a state legislative house reliably resulted in larger government, whether the governor was a Republican or a Democrat. The effects of having only a Democratic governor were insignificant. Alt and Lowry (2000), however, found that when the legislative government was divided (that is, the house and senate were controlled by different parties), the governor's party could shift spending toward its preferred outcome. This is compared with split-branch government, when the governor was of one party and the legislature another, in which case the governor had less power to influence spending. Divided government can also affect revenue forecasting. Legislative branch forecasts are more conservative under divided than under unified governments (Krause, Lewis, and Douglas 2013).

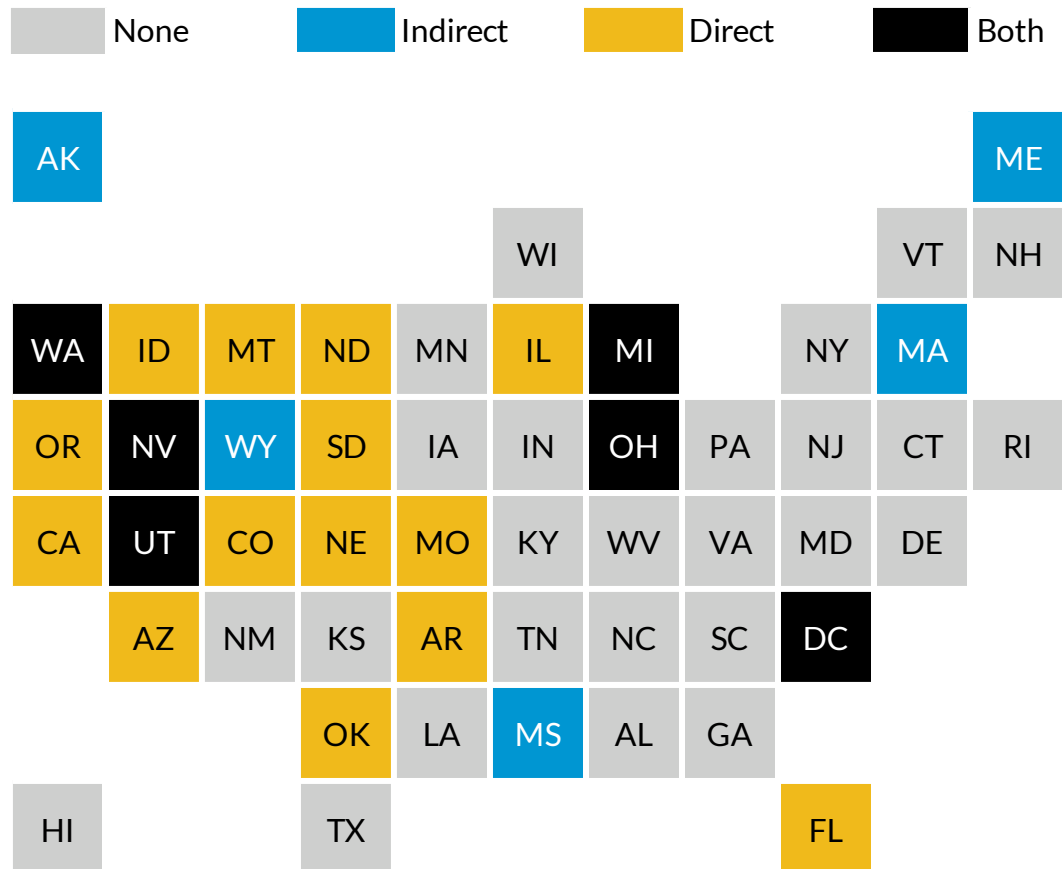
## THE ELECTORATE AND DIRECT DEMOCRACY

Twenty-four states allow the public to enact policy through a voter initiative (figure 8). Voters may be asked how to allocate state funding or to make state budgeting decisions at the ballot box. For example, nine states enacted their current tax and expenditure limits (TEs) by voter initiative (NASBO 2015).

FIGURE 8

### Voter Initiative Processes in the States

2015



**Source:** National Conference of State Legislatures, “Initiative and Referendum States,” December 2015, accessed January 27, 2017, <http://www.ncsl.org/research/elections-and-campaigns/chart-of-the-initiative-states.aspx>; District of Columbia Board of Elections, “Guide to Initiative and Referendum,” accessed November 9, 2017, [https://www.dcboe.org/regulations/initiative\\_and\\_referendum/guide.asp](https://www.dcboe.org/regulations/initiative_and_referendum/guide.asp).

**Notes:** Indirect initiative processes allow the legislature to vote on proposed legislation, with the initiative going to the ballot only if the legislature rejects the proposal or refuses to act. Direct initiatives go straight to the ballot.

California is often referenced as a preeminent case of “ballot-box budgeting.” For example, the state passed Proposition 13 to limit property taxes in 1978 and Proposition 98 to mandate state



funding for K–14 education in 1988.<sup>28</sup> Matsusaka (2005), however, found that, contrary to popular narrative, ballot-box budgeting was not a binding force in California’s budget. Matsusaka reviewed California’s history of voter initiatives and concluded that California would have spent similar amounts on education and other services, even in the absence of a voter mandate. So, while voter initiatives appear to constrain the budget on its surface, they may not impose functionally binding budget requirements on legislators.

Research about the effect of direct democracy on spending has produced mixed results. In a Mercatus Center literature review on fiscal institutions, Mitchell and Tuszynski (2012) highlighted the early work of Bails and Tieslau (2000) in the *Cato Journal* and Matsusaka (1995),<sup>29</sup> which found that spending was lower in states with a voter initiative process. However, Besley and Case (2003) found that direct democracy had little effect on fiscal outcomes. Qiao (2015) found that expenditure-inducing voter initiatives increased the budget gap, while revenue-limiting initiatives had little demonstrable effect on states’ budget gaps.<sup>30</sup>

In addition to effects on the size of the budget, voter initiatives can influence the composition of the state budget and the share of total spending undertaken by state versus local governments. Matsusaka (1995) found that states with an initiative process had a less redistributive revenue system and more decentralized spending system, with local governments spending 10 percent more than in states without an initiative process. Spending increased at the local level, despite decreasing at the state level. Building on this work, Matsusaka (2004) found that states with voter initiatives raised more revenue through fees than through taxes. He also found, through opinion polls, that these policy choices reflected the preferences of the voting public as opposed to those of special interest groups. Research by Matsusaka (2014) and Sacchi and Pennisi (2014) also found that the fiscal effects were stronger in states where voters exercised the initiative process and weaker where the process was available but unused.

Research on state budgeting practices also sometimes explores the intersection of voter approval and budget institutions. Many debt limit policies, for example, require voter approval to override the debt provision. Bohn and Inman (1996) found that states requiring the public to approve a debt increase had lower general obligation debt. Some states substituted revenue-backed debt and other nonguaranteed forms of debt for traditional, voter-approved debt.

## TERM LIMITS

Term limits affect the behavior of elected officials when it comes to budgeting. Besley and Case (1995), for example, found that when Democratic governors faced term limits, sales and income taxes per

capita were higher in the final year of their terms. Besley and Case did not find a relationship between term-limited Republican governors and taxes. In addition, the authors found that term-limited Democrats raised minimum wages in their final year, while Republican governors did not. However, the authors did not find different trends in tax and spending growth across states and over time, so regardless of partisanship, term limits appeared to change the timing of spending and tax growth, with Democratic governors holding taxes and spending below the historical mean but then raising them in the final year of their terms. In a 48-state analysis using data from 1977 to 2001, Erler (2007) also found that states with legislative term limits had higher spending, positing that the short time horizons gave legislators an incentive to depart from optimal fiscal policies in the short-run.

Kraus, Lewis, and Douglas (2013) found that short electoral time horizons, typically imposed by term limits, resulted in more optimistic revenue forecasts, presumably since policymakers would not have to manage the consequences of inaccurate forecasting.

## Evidence on Sustainable State Budgeting Practices

Over the past 30 years, academics and policy analysts have examined the fiscal and economic impact of popular state budget practices. Much of the literature confirms that budget institutions and practices influence fiscal outcomes.<sup>31</sup> Access to data on state fiscal institutions has also grown. The National Association of State Budget Officers (NASBO) publishes a periodic report on variation in fiscal institutions across the 50 states and the District of Columbia (DC). The earliest state budget process report, published in 1975, provided 18 tables illustrating variation in practices and institutions such as the budget cycle, budget office personnel, capital and operating expense projects, and electronic data processing (Council of State Governments 1975). The most recent 2015 edition, by comparison, provided 32 tables and included data on variation in TELs, gubernatorial veto authority, and limitations on state debt and deficits, among other practices.

Policymakers and researchers thus have access to a growing body of research and data that can guide decisionmaking. To determine the best budgeting practices, however, policymakers must define their desired outcomes. When it comes to budgeting, policymakers often focus on three types of outcomes:

- Fiscal, or those related to the state's financial position and solvency, such as its debt, revenue, or spending.

- Economic, or those that go beyond a state's financial statements to include economic growth, employment, income, or distributional equity, for example.
- Program performance, or those related to the quality of a state's services (such as education or health care), infrastructure, or other public goods.

Policymakers and budget staff have an obligation to manage a state's fiscal health, so fiscal outcomes are often a primary concern. Policymakers may choose whether to also address economic goals or program performance in their budgeting decisions. Many budget institutions are enshrined in state constitutions and influence decisionmaking in a way that can either help or undermine a state's fiscal and economic health. For example, balanced budget rules can keep a state from becoming too reliant on deficit financing but may hinder it from taking helpful actions, considering its economic cycle.

The literature on state budget practices focuses primarily on macro-level fiscal outcomes, such as topline spending and revenue numbers (box 3). Budget practices can also affect spending priorities and specific program fiscal outcomes, such as the composition of spending and revenues. A smaller subset of the literature touches on economic outcomes, such as fluctuations in personal income and GDP. While there is some evidence that budget rules affect large program areas like education and health care, the effect of budget practices on specific program performance outcomes is less studied.

When examining the efficacy of different institutions, researchers only have access to the data that are collected and publicly available. Nuance in state policy is thus sometimes absent from analyses, since data are available on limited outcome measures. When selecting either policies or outcomes to study, researchers may also be influenced by prior beliefs, goals, and priorities. For example, in a 2011 literature review on fiscal institutions, the Mercatus Center (Mitchell and Tuszynski 2012) favored institutions that produced more disciplined fiscal outcomes, such as reduced spending and swift responses to deficit shocks. Other organizations, such as the Center on Budget and Policy Priorities, have highlighted institutions that assist states in long-term planning and ensure consistency in spending, relative to need.<sup>32</sup> In his studies on BBRs, Levinson (1998, 2007) focused on economic volatility, an outcome not always included in other work. Poterba and Rueben (1999, 2001), in yet another example, examined the effect of TELs on state borrowing costs.

Budgeting best practices will differ depending on how much weight policymakers place on limiting deficits, mitigating fiscal volatility, reducing borrowing costs, and achieving other fiscal and economic outcomes. Understanding the conflicting effects of institutions is critical, and policymakers must ultimately weigh these trade-offs when deciding which restrictions and institutions to adopt. Below, we highlight the effects of specific budget practices identified in the literature. We also examine how

institutions work in tandem, and how their perceived effectiveness will depend both on economic and fiscal conditions within a state, as well as on the outcomes policymakers are trying to achieve.

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### BOX 3

#### Fiscal Outcomes in the Budget Literature

**Borrowing costs:** The interest rate governments pay to bond investors.

**Budget composition:** State spending by functional category (e.g., education, health care, transportation) and revenues by source (e.g., income taxes, bond revenues, fees).

**Debt:** The financial liability the state takes on. Studies may focus on general obligation debt, revenue bonds, or debt issued through local governments and public authorities, for example.

**Deficit:** The amount by which state expenditures exceed revenues in each budget cycle. Empirical studies may focus on whether, and how quickly, states either reduce spending or raise taxes to close a midyear budget gap.

**Economic volatility:** Large swings in the business cycle, GDP, employment, or other economic outcomes.

**Expenditures:** The amount the state spends.

**Fiscal volatility:** Large swings in either revenue or spending, often because of fluctuations in the business cycle.

**Surplus and savings:** The amount by which revenues exceed expenditures in a given year, or the total amount of unappropriated general funds plus any funds in the state BSF.

**Taxes and revenue:** The amount that the state collects from taxes or other revenue sources such as fees.

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### Budgeting Timelines, Forecasting, and Baselines

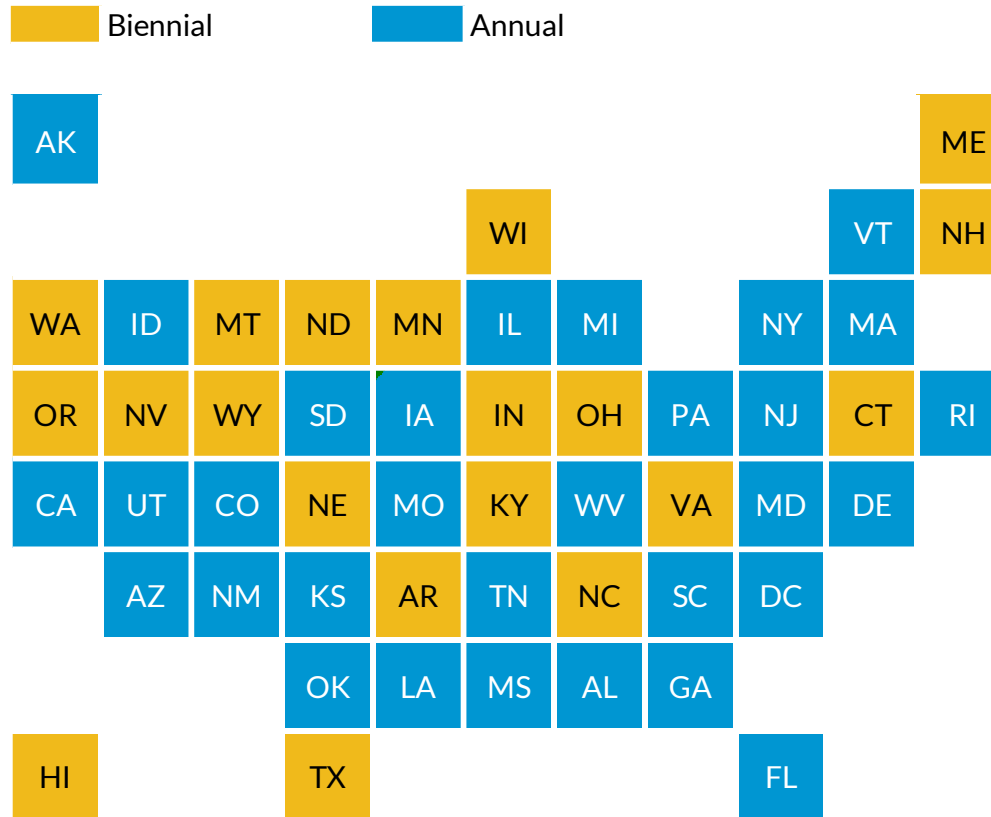
States budget on different timelines, forecast revenues with different methods, and use different baselines to allocate funding to agencies and programs. These practices help states plan and bring uniformity to the annual or biennial funding requests that state agencies bring to the legislature and governor.

## THE BUDGET CYCLE

How often do states produce budgets? States can produce budgets either annually or biennially. States with biennial budget cycles produce budgets every other year for the upcoming two fiscal years. Most states, however, budget annually. In 2015, 30 states and DC budgeted annually (figure 9). Grossman (2011), writing for the Council of State Governments, reported that in 1940 by comparison, most states (44) states budgeted biennially. Snell (2011) attributed this shift to the adoption of the annual legislative session and the growing complexity of the federal grant system. Annual and biennial budgeting practices have remained stable since the 1970s, however. In 1975, 28 states and DC budgeted annually, with Iowa and Vermont adopting an annual budgeting cycle between 1975 and 2015 and Nebraska and Connecticut moving to a biennial budgeting system during that time (Council of State Governments 1975).<sup>33</sup> In 46 states, the fiscal year begins on July 1, with the remaining states starting on the first of April (New York), September (Texas), or October (Alabama and Michigan) (NASBO 2015).

FIGURE 9

### Annual and Biennial Budgeting in the States



Source: NASBO (2015).

## ***Fiscal Effects***

Policymakers in favor of biennial budgeting have touted a wide range of purported benefits, including lower spending, better planning, and more time for program evaluation. Empirical findings, however, are mixed on whether biennial budgeting offers any real benefits over the annual budget cycle. Snell (2011), in a literature review for the National Conference of State Legislatures, reported no clear advantage of one budgeting cycle over the other. Proponents of biennial budgeting have suggested that it can produce greater fiscal discipline and reduce spending, as lawmakers are encouraged to plan and do not experience annual pressure to incrementally expand the budget. Empirical research contradicts this claim, however. Crain (2003) and Kearns (1994), after controlling for factors that might influence government spending, such as population, income per capita, urban and rural populations, and population age, found that states with a biennial budget cycle spent more.<sup>34</sup> Moreover, an early National Conference of State Legislatures study in 1987 (cited in Snell 2011) also found no evidence that biennial budgeting reduced state spending. While states with biennial budgeting cycles may have lower executive branch budget preparation costs, this is a small part of state spending and seems to have little effect on overall state expenditures.

Do biennial budgets help states plan? A recent econometric study by Kim and Wang (2015), using a panel dataset from 1960 to 2012, found that spending was less volatile in states with a biennial budget cycle, presumably because the two-year budgeting timeframe forces longer-term planning. Biennial budgeting also potentially allows for intertemporal smoothing, whereby a budget deficit in one year may be offset in the next fiscal year and managed without an abrupt cut to public services. However, others suggest it may be more difficult for states to budget accurately over a two-year period. Boyd, Dadayan, and Ward (2011), for example, found that forecasting errors were twice as large, on average, in biennial budgeting states as in states with an annual budget cycle. However, they found that forecasting errors were primarily the result of volatile tax revenue streams, not the budgeting cycle.

## **REVENUE FORECASTING**

Revenue forecasting allows a state to understand the resources it has available to spend. States that do not produce timely or detailed revenue estimates may experience unexpected deficit shocks or contribute insufficient resources to their BSFs to weather future downturns.

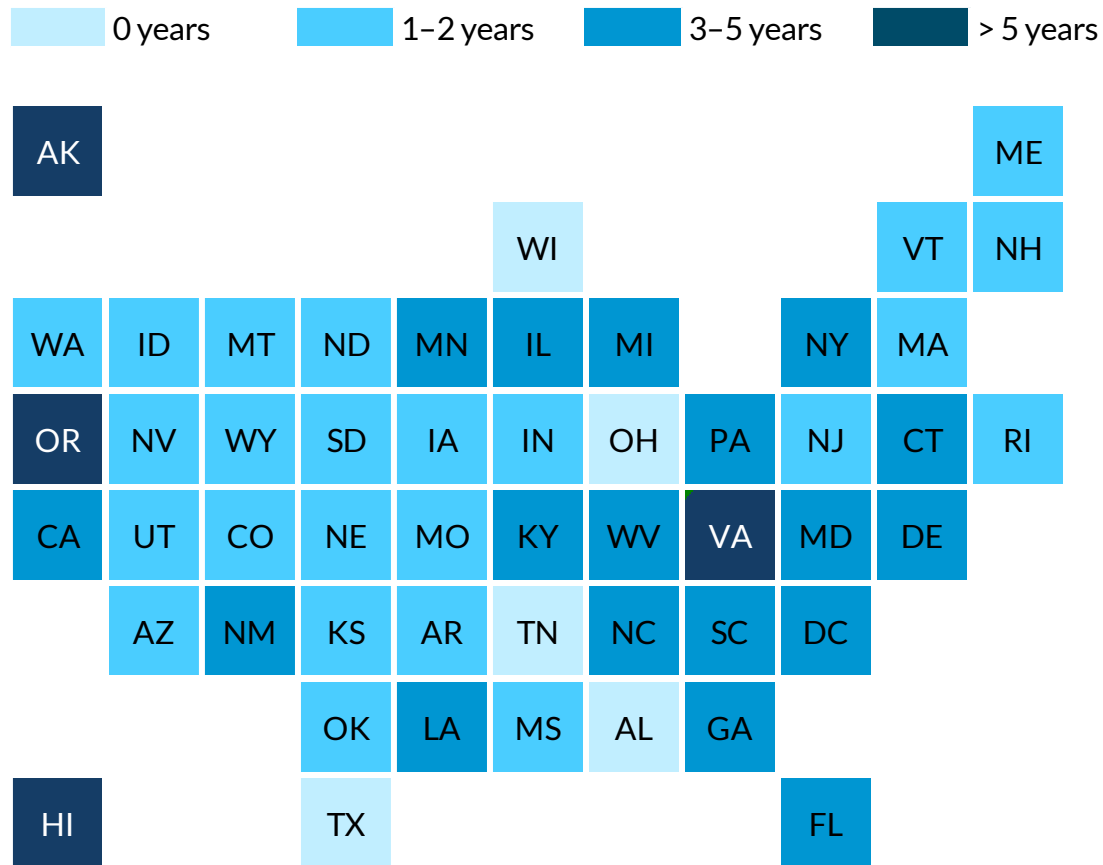
On average, states produce revenue forecasts for two to three fiscal years beyond the current budget cycle (figure 10). States may consider producing multiyear forecasts to better prepare for fluctuations in the business cycle (Hou 2006). Some states provide longer-term revenue forecasts; Alaska, for example, forecasts revenue 10 years beyond the current budget cycle, reflecting its high

reliance on volatile extraction taxes. However, states are about as likely to deviate in the other direction and only produce a revenue forecast for the current fiscal year (figure 10). Some states centralize forecasting responsibility with the executive branch budget office, while others employ a multibranch, consensus-based approach. Sometimes states produce longer-term forecasts but do not make them publicly available.

FIGURE 10

**Revenue Forecasting in the States**

*Number of years states project revenue beyond the current budget cycle, 2015*



Source: NASBO (2015).

Notes: NASBO did not report a revenue forecasting timeline for North Dakota in 2015. NASBO data were supplemented with information directly from the states.

Critics of current forecasting practices have focused on states' propensity to set unrealistic revenue baselines and to obscure revenue forecasting methods to avoid public scrutiny. Recommendations for improving state forecasting practices often include adopting transparency measures, soliciting a forecast from an independent party, and including more stakeholders (LaPlante 2011; McNichol 2014a;

Volcker Alliance 2015). Publicizing state revenue forecasts is a common transparency practice. In 2015, 46 states and DC had statutory requirements to publish revenue forecasts, but these requirements typically only applied to forecasts for the current and following fiscal year (NASBO 2015).

Research has found that executive branch agencies and independent commissions produce the most conservative budget forecasts, while legislative branch forecasts are more conservative under divided government than under unified government (Krause, Lewis, and Douglas 2013). In 31 states, in 2015, the executive budget agency was involved in producing revenue estimates for the governor's budget. The governor was directly involved in eight states. The legislature was involved in only 11 states. Thirty-one states and DC had a formal revenue-estimating group (NASBO 2015).

In 2015, 25 states used consensus forecasting, which involved formally garnering participation from multiple budget stakeholders across branches of government (NASBO 2015). In 1997, 22 states reported using consensus forecasting methods (NASBO 1997), suggesting that the practice has remained fairly static, although some policy groups have recently advocated for wider adoption (McNichol 2014a).

### ***Fiscal Effects***

Accurate revenue forecasting can reduce midyear budget gaps by providing policymakers with accurate information about available resources. Literature on revenue forecasting practices, therefore, often focuses on whether they improve accuracy. Beyond accuracy, however, researchers may also study stakeholder buy-in and how different processes can depoliticize the forecast. One benefit of consensus revenue forecasting, for example, is its potential to depoliticize the revenue-estimation process and obtain buy-in from stakeholders, therefore reducing errors in forecasting that result from political bias.

Consensus forecasting at least ensures that when a revenue shortfall arises, all players start with the same understanding of its size. In a study of the literature, Boyd, Dadayan, and Ward (2011) found that much of the research on consensus forecasting was based on poor definitions of the practice. They found no clear link between consensus forecasting and budget accuracy. Forecasting errors, they reported, were more likely to result from a recession or to be found in less populous states that relied on revenues from only a few economic sectors (Boyd and Dadayan 2014). Alaska, for example, relied heavily on volatile revenue from natural resource extraction. The increasing volatility of tax revenues, they found, was the primary culprit in revenue forecasting errors (Boyd and Dadayan 2014; Boyd, Dadayan, and Ward 2011).



Although accuracy is desired, it may not be the only outcome of interest. Boyd, Dadayan, and Ward (2011) praised consensus forecasting's ability to "smooth" the budget process by depoliticizing revenue estimation and ensuring that everyone has agreed to the estimates. A case study on forecasting in Indiana found that the accuracy of revenue estimates was less important than whether the estimates were accepted by the stakeholders who would ultimately use them (Mikesell and Ross 2014). Accuracy is irrelevant if policymakers do not subscribe to the estimates. A consensus-based process can bring more transparency to forecasting and produce numbers that policymakers will accept.

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*The whole system is designed to be as transparent as it possibly can, so you end up with a single consensus forecast. — John Mikesell, Chancellor's Professor Emeritus, Indiana University Bloomington, interview with Pew Center on the States (Boyd, Dadayan, and Ward 2011, 32)*

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Political institutions also influence forecast accuracy. States with term-limited governors produce less conservative revenue forecasts with larger errors (Krause, Lewis, and Douglas 2013). Political pressure, especially on the governor to balance the budget during an election year, can also lead to bigger forecasting errors (Boylan 2008). If states cannot eliminate forecasting errors through better forecasting practices, they can adopt other budget institutions to mitigate negative effects. For example, states can adopt BSFs to mitigate the consequences of forecasting errors that arise periodically from revenue volatility (Boyd, Dadayan, and Ward 2011; Mattoon and McGranahan 2012; Moody's Investors Services 2016; Schunk and Woodward 2005).

## **BUDGETING BASELINES**

How do states decide what to allocate to specific agencies or programs? Do they start from scratch every year or begin where the previous year's budgets left off? Budgeting baselines help states answer these questions and make funding requests more uniform across agencies. The executive budget office will often provide agencies with guidelines on how to prepare budgets; these will include directions for the budget baseline, or starting point.

A current services budget allocates the necessary funding for programs to maintain their current services, augmenting prior-year budget numbers to reflect growth in caseloads and inflation. Building

upon the “incrementalist” school of budgeting, a current services budget makes small adjustments from year to year based on previous spending but with specifications for growing need.<sup>35</sup> NASBO does not collect data on current service budgeting, but in 2011 the Center on Budget and Policy Priorities (McNichol and Grundman 2011), in a qualitative review of state practices, reported that 22 states and DC prepared current service baselines to inform the budgeting process.

Performance-based budgeting (PBB) allocates dollars to programs that successfully meet performance benchmarks. While PBB and current services budgeting are not mutually exclusive, the objective of PBB is to target funding toward the most effective programs and incentivize accountability for program management and use of public funds. Despite being lauded as an innovative budgeting tool in the 1990s (Melkers and Willoughby 1998), in 2015 only three states (Louisiana, New Jersey, and Texas) and DC used PBB as their primary budgeting method, and no state used PBB alone (NASBO 2015). Twenty-five states used PBB in conjunction with another primary budgeting mechanism (NASBO 2015). In 1997, no state reported using performance budgeting as its sole budgeting method, and only 14 reported using it in combination with other methods (NASBO 1997).

Zero-based budgeting (ZBB) allocates dollars from the ground up, requiring justification for all proposed expenditures. Programs may be rank-ordered based on priority and alternative service levels, using \$0 as the baseline. Only one state (Oregon) used ZBB as its primary budgeting method in 2015, but 12 states used it in combination with another primary budgeting method (NASBO 2015). In 1987, four states used ZBB as their sole budgeting method, while an additional six states reported that they used it in combination with other methods (NASBO 1987).

### ***Fiscal Effects***

Proponents of current services budgeting argue that failing to incrementally adjust for inflation and population growth results in a budget cut in real terms for important services (Shirck and Shen 2005).<sup>36</sup> Opponents argue that current services baselines enlarge budgets unnecessarily and don’t always accurately predict need (Shirck and Shen 2005). Crain and Crain (1998) found that states using prior-year services as their baselines had higher annual rates of spending growth than states using only dollars spent as their baselines. While current services budgeting can lead to higher spending, some policy organizations such as the Center on Budget and Policy Priorities suggest that it gives policymakers more realistic information with which to make policy choices (McNichol and Grundman 2011).<sup>37</sup>

While qualitative research finds that policymakers perceive PBB as an effective tool to promote efficiency, not all research finds that the practice reduces spending. Moreover, there are limited

analytical empirical studies on PBB and its effects. In surveys, budget staff and agency heads report that PBB reduces agency appropriations (Ryu et al. 2008). However, perceptions do not always align with empirical findings. Klase and Dougherty (2008), for example, found that PBB was associated with higher total state spending per capita. States with PBB implementation legislation spent, on average, \$332 more per capita when controlling for sociodemographic variables (Klase and Dougherty 2008).<sup>38</sup> To explain this behavior, some researchers have posited that PBB gives voters more information and therefore greater confidence in how the government spends tax revenues, providing policymakers with the political freedom to increase spending.<sup>39</sup> Literature on budget transparency confirms that greater transparency produces higher spending (Alt and Lowry 2010; Alt, Lassen, and Skilling 2002).

A previous study by Crain and O’Roark (2004) found that PBB reduced state spending by 2 percentage points per capita, yet this effect varied by functional spending category.<sup>40</sup> Crain and O’Roark’s study looked at effects on both overall spending and different categories, and included additional political and ideological control variables that might influence spending. The authors also recognized possible endogeneity in their study design and checked their findings using an instrumental variable approach. They found that PBB affected spending areas differently. Public welfare spending, for example, decreased under PBB while correctional spending increased. They posited that, in some spending areas, PBB may produce lower per unit costs, which increases the quantity of services demanded. Thus, lower costs in specific spending areas can increase overall spending.

Reddick (2007), similarly, found that PBB affected spending within functional categories, such as on highways and corrections, but not overall spending.<sup>41</sup> Reddick (2007) suggested that some functional categories may be easier to measure than others and thus lend themselves more effectively to the PBB process. He concluded that, rather than implementing pure performance-based budgeting standards, states should use PBB in combination with an incremental budgeting approach. A hybrid approach can increase the chances of successful PBB implementation (box 4).

Policymakers have also proposed ZBB as a tool to reduce wasteful spending and to bring more accountability to the use of public dollars, since it requires a justification for each line of spending. Lauth (2014), in a case study on the resurgence of ZBB in Georgia, however, found that it was used primarily to enforce politically conservative budget cuts. Lauth compared Georgia’s contemporary ZBB process with the ZBB process employed under Governor Jimmy Carter in the 1970s. The recent legislature, Lauth found, used ZBB to cut funding and shrink state government, rather than to increase efficiency in budgeting. Further, the symbolic effect of ZBB was more important than its actual budget effects. Boyd (1982) evaluated the use of ZBB in Texas state universities and found no detriment or benefit, either way, from the practice, compared with the state’s budgeting method before implementing ZBB.

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## BOX 4

### Backsliding on Performance Budgeting

States have been backsliding on the use of performance scores in budgeting since the 1990s (when PBB was touted as a promising new budgeting tool). Between 1990 and 2000, the percentage of states required to provide performance measures as part of the budgeting process fell from 86 percent to 63 percent (Burns and Lee 2004).

What caused this backsliding? In surveys, budget officers have reported that PBB is difficult to implement because performance scores do not translate into clear funding allocations (Jordan and Hackbart 2005). If a program is underperforming, should policymakers strip that program of funding? Or, alternatively, could the program benefit from more robust financial and administrative support? Budget officers have reported no relationship between PBB scores and budget allocations (Melkers and Willoughby 2001).

PBB scores are reportedly more effective for program evaluation than for budgeting (Jordan and Hackbart 2005). Many unknown variables prevent performance measurements from translating into direct budget prescriptions. Managers support PBB when the metrics help them improve program efficacy, and do not when it threatens their fiscal bottom line (Jordan and Hackbart 2005). Hou and coauthors (2011) found that use of PBB dipped during recessions and that, during recessions, PBB may be more effective as a tool for program management than for guiding budgeting decisions.

Partisan politics can also influence performance scores. Gilmour and Lewis (2006) found that, at the federal level, PBB scores affected budget allocations.<sup>a</sup> However, negative performance scores were more likely to result in cuts to programs favored by the minority party.

Proponents of PBB sometimes propose it as a mechanism to enhance performance, since agencies and programs have a financial incentive to perform well. Shin (2010), however, found that PBB did not produce performance improvements in state higher education systems, calling into question its efficacy as a performance management tool.

Could performance-based budgeting experience a renaissance? To encourage evidence-based policymaking and ease implementation, the Pew Charitable Trusts (2016) has released concrete steps states can take to incorporate performance metrics into their budgeting processes. However, whether states adopt PBB systems may depend on the ease with which they can translate performance outcomes to spending and budget priorities.

<sup>a</sup> Gilmour and Lewis (2006), peer reviewed and published in *Public Administration Review*, is not widely cited compared with other peer-reviewed quantitative studies evaluated for this report. The study had zero cross-citations in Google Scholar as of January 2017.

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Literature often tries to evaluate the effects of budgeting techniques separately. Yet, as noted, states often employ a hybrid approach. Reddick (2007), for example, found that states employed a mixture of incrementalist, PBB, ZBB, and program-based budgeting techniques. States' mix of these

techniques affects spending both overall and at the functional level. He suggests that policymakers and researchers study budgeting techniques and implement reforms as hybrid systems rather than as stand-alone interventions.

## Budget Requirements and Restrictions

States attempt to control spending growth by setting revenue or spending limitations, or by requiring that expenditures match revenues (i.e., a balanced budget). The following institutions limit legislators' and governors' discretion regarding taxing and spending, requiring policymakers to pass a budget that meets specific savings or revenue targets and stays within confined spending goals.

### BALANCED BUDGET REQUIREMENTS

BBRs prohibit states from spending more than they collect in revenue and have become a pillar of state budgeting practice. BBRs require states to balance projected revenues with expenditures, although states have varying flexibility when interpreting and implementing their BBRs. BBRs have become a common fiscal institution over the last thirty years. In 1977, only 32 states and DC reported a requirement to balance revenues with expenditures (NASBO 1977). Throughout the 1980s, a wave of additional states adopted BBRs. By 2015, 46 states and DC reported having BBRs (NASBO 2015). In 2015, in 37 states and DC, these requirements were constitutional, while the remaining were statutory. Even in the four states lacking formal BBRs, debt restrictions and similar provisions effectively restrict the ability to run a deficit. For example, while Virginia does not technically require the legislature or the governor to sign or propose a balanced budget, it does require the governor to execute a balanced budget over the course of the appropriation period (NASBO 2015).

BBRs are not uniform across states. They vary in stringency and design, and not all spending is subject to BBR limitations. Capital and pension funds, for example, are usually exempt from BBR limitations (Snell 2011) (box 5). In 44 states, the governor must propose a balanced budget, while in 41 states the legislature must pass a balanced budget, and in 40 and DC the governor must ultimately *sign* a balanced budget (figure 11). States combine rules differently. For example, although Texas and West Virginia require the legislature to pass and the governor to sign a balanced budget, they do not require the governor's initial proposal to be balanced. Hawaii, meanwhile, requires the governor to propose and eventually sign a balanced budget, but the state does not require the legislature to pass a balanced budget as an intermediary step.

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## BOX 5

### Circumventing Balanced Budget Requirements

Balanced budget rules are often designed imperfectly, and state policymakers can circumvent BBR requirements. Limitations on the spending covered under BBRs, paired with government fund accounting practices, can provide opportunities for circumvention.

BBRs are generally applied on a cash basis rather than on an accrual basis, which means that states can engage in accounting gimmicks to satisfy requirements. For example, states can push a payroll or state aid payment from the last month of the current fiscal year into the first month of the next. This allows states to meet their legal requirement to balance their budgets while leaving resources and obligations out of balance.

- In 1998, Hawaii delayed payroll for state employees from June to July to balance its budget, although the effort resulted in several lawsuits from public university employees.<sup>a</sup>
- In 1985, Texas made a similar choice to move its payroll in order to balance the budget (Oregon Office of the State Controller 2009).
- California moved its payroll obligation by one day in the 2009–2010 budget cycle to balance its budget (California Legislative Analyst’s Office 2010).

This gimmick only produces one-time savings, however, as the state is simply transferring its obligation to the following fiscal year. If a shortfall is caused by sudden changes in economic conditions, this flexibility can allow a state time to recover economically and meet its fiscal obligations. However, it can also lead to ongoing reallocation of expenses to the next budget year.

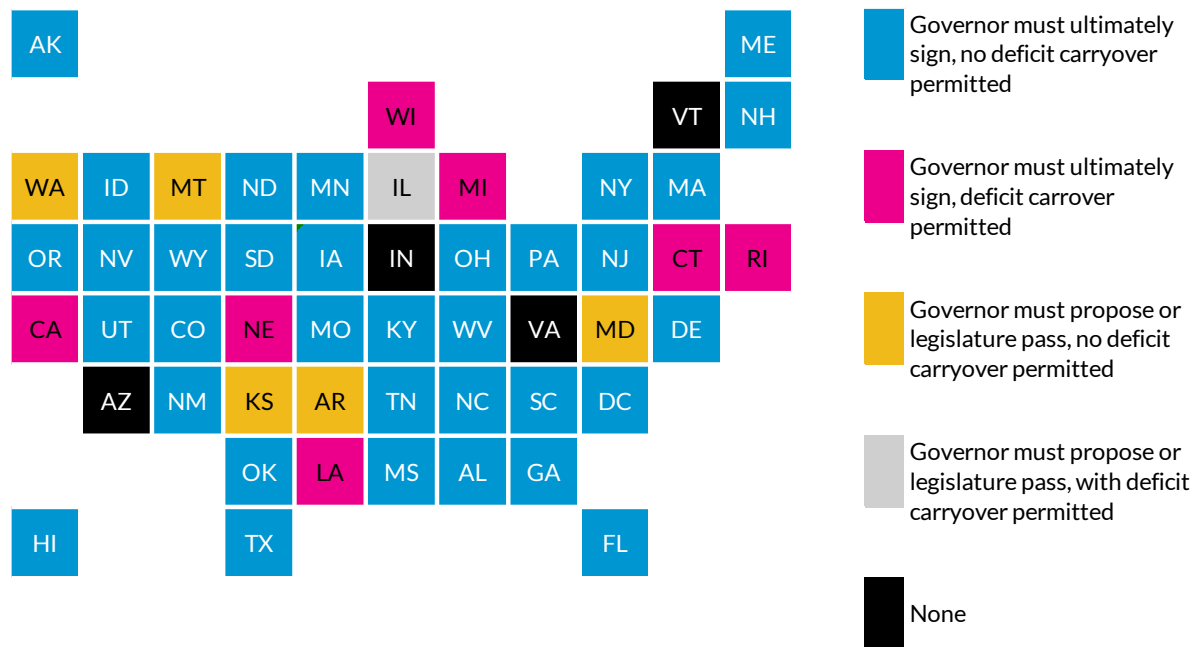
State BBRs do not apply to all revenue streams or spending obligations. For example, states typically do not apply their BBRs to pension obligations or employee health care costs. In these scenarios, a flexible BBR can make suspending pension payments especially attractive, even if fiscally unwise in the long term, since suspending payments frees up resources to cover general fund expenses. This example illustrates how state fund accounting can obscure a state’s true fiscal position.

Despite states’ ability to circumvent BBR requirements, some research has suggested that bond markets and voters penalize states when they fail to meet BBR requirements (Lowry and Alt 2001; Poterba and Rueben 2001). So, while states may have the option to avoid the requirements, many will choose to maintain good fiscal standing with creditors and voters. In some cases, slack in the requirements may provide helpful flexibility when states must respond to volatile revenues and spending needs.

<sup>a</sup> HI Rev. Stat. § 78-13; Alan Greenblatt, “Hawaii Faces a Showdown over a Payroll Slowdown,” *Governing*, February 2001, <http://www.governing.com/topics/politics/Hawaii-Faces-Showdown-Payroll-Slowdown.html>.

Eight of these states do not require the final annual accounting to be balanced, in what is known as a deficit carryover. Deficit carryover provisions allow states to plug unexpected budget gaps with reserve funds or to address them in the following fiscal year, rather than enacting midyear spending cuts or tax hikes. Five states with deficit carryover provisions have an annual budgeting cycle, while three budget biennially. Among the three biennial budgeting states, Connecticut and Nebraska allow the deficit to be corrected in the following biennium while Wisconsin requires a correction by the following fiscal year.

**FIGURE 11**  
**Stringency of Balanced Budget Requirements in the States**  
 2015



Source: NASBO (2015).

Notes: States have adopted many combinations of the above BBR requirements. In this figure, states that require the governor to ultimately sign a balanced budget may also require the governor to propose or legislature pass a balanced budget (or all the above) earlier in the budget process. In Virginia, the governor or legislature is not required to propose or sign a balanced budget, but the state does prohibit a deficit carryover. The governor must execute a balanced budget.

**Fiscal Effects**

BBRs and their stringency affect fiscal outcomes (box 6) (Gordon 2012a, 2012b; Knight and Levinson 2000; Poterba 1995). Stricter BBRs, which prohibit states from carrying deficits into the following fiscal year, are associated with tighter fiscal outcomes, such as reduced spending, smaller deficits, and more rapid spending adjustments during recessions (ACIR 1987; Alt and Lowry 1994; Campbell and Sances 2013; Poterba 1994; Von Hagen 1991).

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## BOX 6

### How Strict Are Balanced Budget Requirements?

Research finds that only the strictest BBRs are binding on state spending and taxation. In 1987, the federal Advisory Commission on Intergovernmental Relations (ACIR) proposed classifying BBRs based on stringency, a method scholars have since used to evaluate their fiscal effects. In this classification system, strong antideficit rules

- are constitutional, as opposed to statutory, since constitutional provisions are more difficult to override;
- contain limited or no deficit carryover provisions; and
- require the legislature to pass or the governor to sign (rather than merely propose) a balanced budget.

The ACIR (1987) and other researchers (e.g., Poterba 1994) used this taxonomy to score BBRs on their stringency. Researchers have not always agreed on the appropriate classification of BBRs, however. Differences in classification have produced variation in empirical findings on fiscal effects (Krol and Svorny 2007; Levinson 1998, 2007). Hou and Smith (2006) proposed an alternative classification framework that encompassed political as well as technical components of the budget process. They found narrower provisions that are binding in later stages of the budget process had greater effects (Hou and Smith 2010).

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Poterba (1994), for example, found that states with weak antideficit provisions reduced spending by \$17 for every \$100 deficit overrun, compared with \$44 in strong antideficit states. Von Hagen (1991) found that states with stricter BBRs had less general obligation debt, while the federal Advisory Commission on Intergovernmental Relations (ACIR 1987), Alt and Lowry (1994), and Campbell and Sances (2013) all found reductions in deficit spending in states with strict BBRs. The ACIR (1987), Crain (2003), Crain and Miller (1990), and Primo (2007) found that BBRs were associated with less spending,<sup>42</sup> while Alesina and Bayoumi (1996) and Bohn and Inman (1996) found higher surpluses. In his 2003 book, Crain controlled for several demographic and institutional variables and found that states with strict BBRs spent on average \$88 per capita less than other states. Alesina and Bayoumi's (1996) study was published as a working paper with the National Bureau of Economic Research. This was an early study on BBRs and widely cited across the literature, yet it did not address reverse causality or omitted variables, and it neglected to include interactions with other fiscal institutions or factors that might cause fluctuations in the business cycle (Gordon 2012a; Knight and Levinson 2000). Lowry and Alt (2001) and Poterba and Rueben (2001) found that strict BBRs reduced states' borrowing costs.



However, some research suggests that strict BBRs increase fiscal and economic volatility, since they force spending cuts or revenue increases when a state's economy is already contracting (box 7) (Bayoumi and Eichengreen 1995; Levinson 1998, 2007).<sup>43</sup> These actions are procyclical and thus exacerbate, rather than counter, the effects of cyclical economic contraction. Levinson's oft-cited 1998 study, for example, found that stringent BBRs exacerbated macroeconomic volatility in the business cycle.

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## BOX 7

### How Do States Comply with Balanced Budget Requirements?

Although it is possible for states to engage in accounting gimmicks to nominally meet their BBRs, only a minority share of deficit dollars is accounted for through these gimmicks—arguably because credit ratings and states' desire to maintain fiscal accountability provide a natural restraint (Gordon 2012b; Poterba 1996a).

As early as 1985, the Government Accountability Office (GAO) reviewed state BBRs and other deficit containment practices. GAO found that states used additional disciplinary tools, such as the line-item veto, a legislative supermajority requirement for raising taxes, revenue limits, and expenditure limits to comply with BBRs. The GAO (1985) observed that, although states could raise revenues to close budget shortfalls, the most frequent method of compliance was program cuts. Other literature has affirmed this, finding that states comply with BBRs by cutting spending rather than by raising taxes (Bohn and Inman 1996; Conant 2010a, 2010b; Gordon 2012c; McNichol 2012; Wallin and Snow 2010).<sup>a</sup> One reason may be that tax increases take time to implement whereas a hiring freeze, a furlough, or another form of program cut is immediate. The tools states use to close budget gaps also depend on the length and severity of the budget crisis.

<sup>a</sup> Conant (2012b) conducted a qualitative case study on Virginia as part of a special Public Budgeting and Finance issue on states' responses to the Great Recession, but it is not widely cited. Wallin and Snow (2010) also contributed an article on Massachusetts for the same issue.

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Not all studies confirm these findings, however. Bohn and Inman (1996) and Follette, Kusko, and Lutz (2008) found strict BBRs were neutral with respect to fiscal and economic volatility, respectively. An early study from Alesina and Bayoumi (1996), as well as a Krol and Svorny's (2007) rebuttal to Levinson (1998), found that strict BBRs reduced volatility. As Knight and Levinson (2000) pointed out, however, Alesina and Bayoumi's study failed to account for the business cycle and other variables that might affect volatility, and Gordon (2012a) found that it did not control for reverse causality. Rose (2006) found that strict BBRs mitigated the "political business cycle," in which elected incumbents were

tempted to raise spending before an election but to postpone the tax cuts necessary to pay for it until a nonelection year.

Findings depend upon researchers' methodological choices and the systems they use to classify BBRs. Krol and Svorny (2007) took issue with Levinson's measure of stringency (among other methodological measurement choices), while Hou and Smith (2006) proposed an entirely new classification system based upon a BBR's technical and political components. Research is sparse on the interaction between institutions. However, Bohn and Inman (1996) found that BBRs contributed to surpluses, which were then deposited into rainy day funds to smooth over future gaps in spending.

### BUDGET STABILIZATION FUNDS

BSFs, also known as rainy day funds, allow states to set aside a surplus for times of unexpected revenue shortfall or budget deficit. Today, every state but Montana has some type of BSF, and many states maintain additional stabilization funds earmarked for specific expenses such as K-12 education or disaster relief. In 1987, by comparison, only 35 states had BSFs. While states have widely adopted BSFs as a tool to mitigate revenue volatility, states follow different rules on how much revenue to contribute to their BSFs annually, whether the balance should be capped and at what level, and under what conditions the funds can be spent.

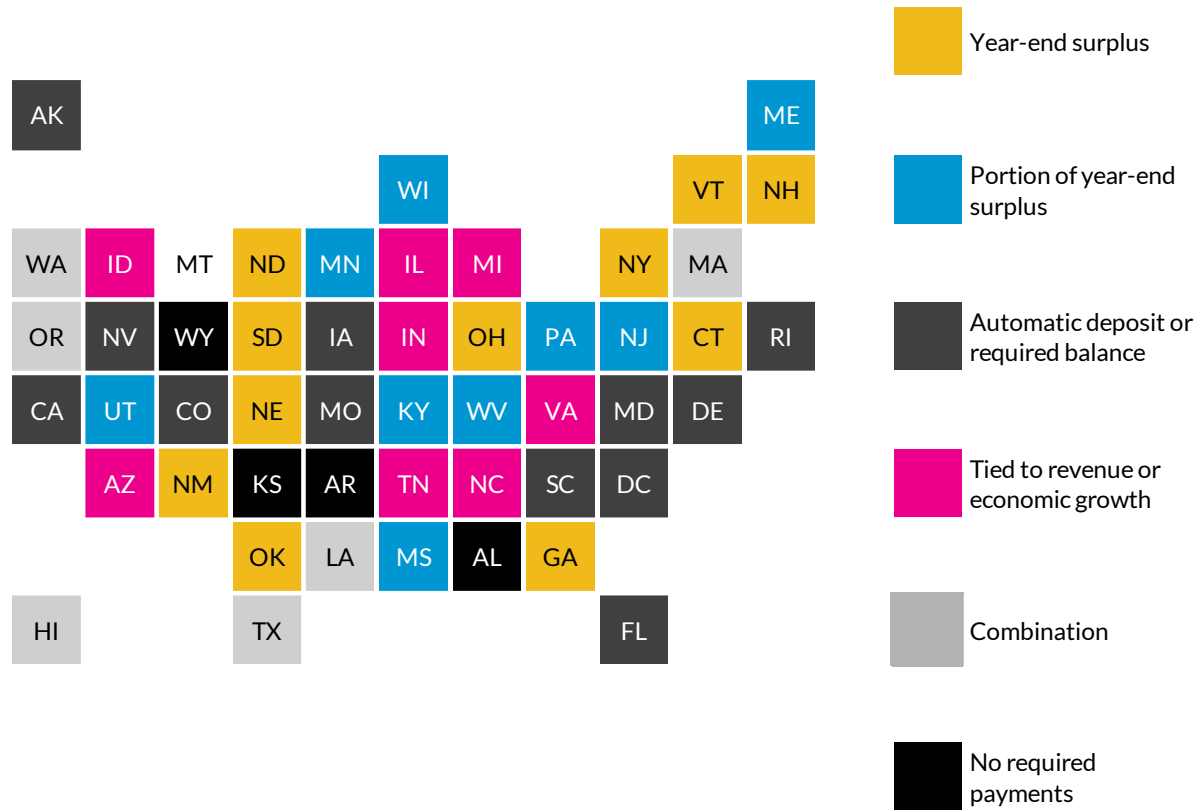
BSF funding mechanisms vary from state to state (figure 12). Most states allow some or all year-end surplus to flow to their BSFs. Other states require set-asides every year until the fund reaches its cap. A few states replenish their BSFs with as-needed appropriations as part of the standard budget process. Finally, some BSFs have dedicated sources of revenue.<sup>44</sup> Twenty-five states cap their funds' balances. The cap is a percentage of either revenue or expenditures. Most states that fund BSFs with operating surpluses stop transfers once the cap has been reached, but a few redirect surpluses to other funds for special projects or remit them back to taxpayers.<sup>45</sup>

In most states, the BSF is dedicated to closing fiscal gaps in the current year or to maintaining government spending when revenues are projected to decline. However, some states only allow funds to be used under specific conditions, such as natural disasters.<sup>46</sup> Other states have program-specific reserve funds designed to cover shortfalls in vital programs, such as K-12 education or Medicaid.

FIGURE 12

Funding Mechanisms for State Budget Stabilization Funds

2015



**Sources:** NASBO (2015), supplemented with Pew Charitable Trusts (2014b) and authors’ review of state statutes and constitutions. Appendix C has a full list of supplemental BSF citations.

**Notes:** (1) Montana is the only state without a BSF. (2) Alaska, California, the District of Columbia, Idaho, Iowa, Minnesota, New York, Vermont, West Virginia and Wyoming have more than one reserve account not earmarked for a specific purpose (such as school aid or health care). The above map refers to the state’s primary BSF. See NASBO (2015) for a full description of all funds. (3) Connecticut’s budget reserve fund reforms will go into effect in 2021, and will add a deposit mechanism triggered by revenue growth. (4) Illinois’s BSF is typically not classified as a formal rainy day fund because it has loose deposit and withdrawal rules. The state has not contributed to the fund since the deposit rules were established in 2004. (5) Kansas established its BSF in 2016 and enacted a funding mechanism which will go into effect in 2019, dedicating 10 percent of unappropriated general fund surplus to its rainy-day fund. Currently, it is funded through appropriation with no required payments. (6) Nebraska, New Jersey, Oklahoma, and Wisconsin fund their BSFs with receipts that exceed forecasted revenue.

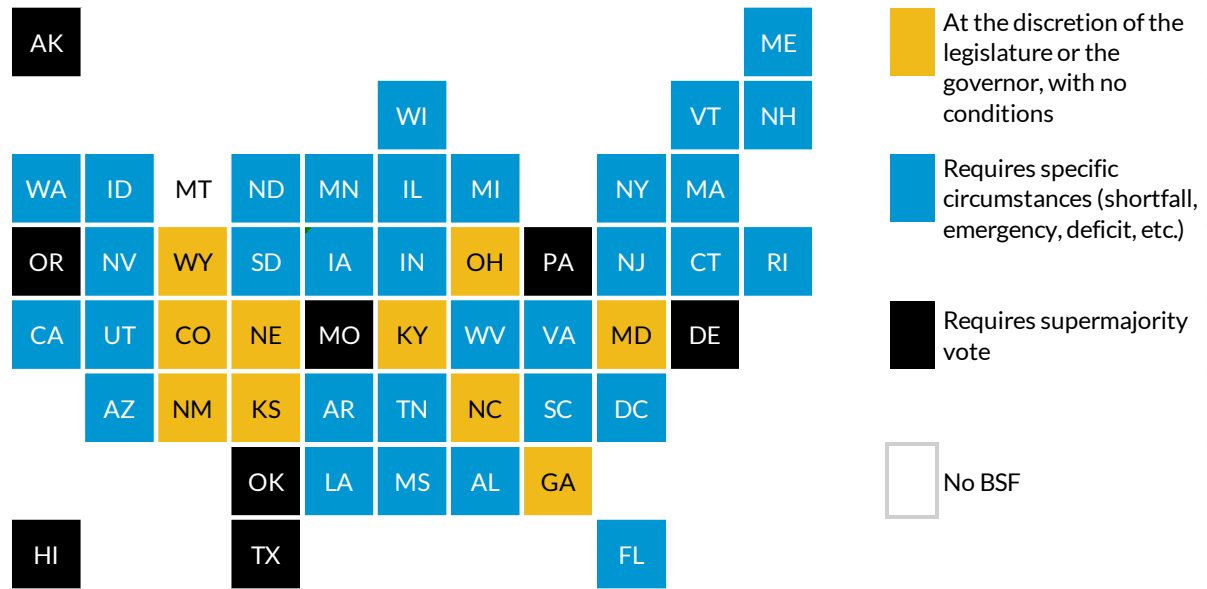
States go through different processes to access their rainy day funds. Some states allow funds to be transferred from the BSF to the general fund via the annual appropriations bill, while others require an emergency declaration or a supermajority (three-fifths or two-thirds) vote of the legislature to make a transfer (figure 13). Several states can use their BSFs to cover short-term cash flow gaps. The state transfers BSF funds to the general fund and must pay them back by the end of the year.

Beyond BSFs, most states also maintain a separate emergency fund for natural or man-made disasters. Unspent disaster fund dollars usually carry forward to the next year. In the case of a disaster, 23 states allow the executive branch to transfer unspent appropriations from other budget areas into the fund.

FIGURE 13

**Procedures for Spending State Budget Stabilization Funds**

2015



Source: NASBO (2015), supplemented with Pew (2017). Appendix C has a full list of supplemental BSF citations.

**Fiscal Effects**

BSFs can mitigate fiscal volatility and are considered a best practice across much of the literature. BSFs create a net increase in state savings (Hou and Brewer 2010; Hou and Duncombe 2008; Knight and Levinson 1999; Wagner 2003), but not all states use their funds as intended for countercyclical purposes (Navin and Navin 1994; Wagner and Sobel 2006).

BSFs can reduce volatility by buoying state spending when revenues decline during an economic recession (Douglas and Gaddie 2002; Hou 2003, 2006; Levinson 1998; Schunk and Woodward 2005; Sobel and Holcombe 1996; Wagner and Elder 2005). Hou (2003), for example, found that the larger a state’s stabilization fund was, the smaller its budget gap was during recession years. This was because states used stabilization funds to plug budget holes. Knight and Levinson (1999) found that a BSF

increased savings above what would be collected as surplus in the general fund in the absence of a savings account.

More recent studies have found a substitution effect is at least partially at play—with states shifting general surpluses into BSFs, rather than generating new savings—but the net effect remains supplemental, increasing savings over what states would have saved without the fund (Hou and Brewer 2010; Wagner 2003).

Absent clearly defined objectives and rules governing deposits and withdrawals, however, states may use BSFs to circumvent TELs or to fund pension debt or other obligations (box 8). For example, New Jersey can use its fund any time if its revenue is less than projected. The state can thus use its fund simply to offset poor forecasting or other regular fiscal errors or mismanagement (Pew Charitable Trusts 2014b). Sobel and Holcombe (1996) found that BSFs stabilized spending, but only if contributions to the fund were mandatory. Both Moody's Investors Services (2016) and the Pew Charitable Trusts (2014a, 2015d) have recommended that states peg their BSF contributions to revenue volatility. The Center on Budget and Policy Priorities (McNichol 2014b) has recommended that states set formal deposit rules and only cap their funds at adequate levels (i.e., more than 15 percent of the state budget). The Volcker Alliance (2015) used rainy day fund contributions to grade states on fiscal performance, and the report of the State Budget Crisis Task Force (2014) recommended all states implement a rainy day fund and contribute to it during good times. Many states cap their BSF balances, ranging from 5 to 15 percent of spending (Pew Charitable Trusts 2015d). Withdrawal rules, Sobel and Holcombe (1996) found, are less critical than deposit rules. However, they are still important. Some states, like Missouri, even charge interest on withdrawals, deterring use of the BSF except in the direst circumstances.

Wagner and Elder (2005) also found that BSFs with strict deposit and withdrawal rules mitigated volatility caused by the business cycle. States with weak deposit rules, or weak deposit combined with weak withdrawal rules, did not see reductions in volatility. In 2015, Pew found that fewer than half of the states using rainy day funds clearly defined the fund's objective, and only one state (Minnesota) specified the amount of risk it wished the fund to offset (Pew Charitable Trusts 2015d). Only five states required an evaluation of revenue volatility to determine fund balances. For example, Utah employed fiscal stress testing to aid in its planning.

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## BOX 8

### Designing a Budget Stabilization Fund

Design choices can affect the ability of a BSF to serve as a stabilizer during recessions. Some states link their BSFs to specific sources of revenue. For example, Alaska's Constitutional Budget Reserve is funded through oil and gas litigation settlements,<sup>a</sup> California's Budget Stabilization Account is funded partially through capital gains revenues, and Louisiana's BSF is partially funded through mineral revenues. BSFs operate on a continuum of stringency. Stringent contribution policies typically require

- a percentage of any state surplus be deposited into the fund, or (even more strict)
- a specific percentage of revenue be deposited, regardless of the prevailing fiscal conditions.

Strict withdrawal policies typically require

- a two-thirds majority to withdraw funds, and
- repayment of funds within a given time frame.

Despite being a best practice recommended by Pew, the Center on Budget and Policy Priorities, the Mercatus Center, and the Volcker Alliance, BSFs are not always easy to implement and may not always provide sufficient resources for states to weather a recession. A 2015 Volcker Alliance report praised California for passing a constitutional provision that requires contributions to the rainy day fund out of specific revenue sources. The state has a novel approach of setting aside a portion of its extraordinarily volatile capital gains tax revenue (above 8.5 percent) into the BSF. The report also commended Virginia for its clear policies on BSF contributions and withdrawals.

<sup>a</sup> One in every six dollars that Alaska receives from oil development is obtained through litigating industry's original payment to the state. Companies will often attempt to reduce the public share of net revenues split between government and industry by engaging in accounting gimmicks and other practices. The state settles these disputes through litigation, and deposits those revenues into its Constitutional Budget Reserve Fund (Fineberg 2003).

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Some literature has suggested that stabilization funds are not always used for their intended purpose. Navin and Navin (1994) found that, while several Midwestern states used their stabilization funds as countercyclical spending stabilizers, many used their funds to offer property tax relief or to offset pension liability. Wagner and Sobel (2006) built on this research and found that many states used BSFs to circumvent TELs. States with TELs in the 1980s, they found, were more likely to implement BSFs but less likely to implement them with strict deposit or withdrawal rules. Perhaps BSFs operated to stash away revenues without binding restrictions on how or when those funds could be spent. The researchers inferred that the funds were being used to exempt revenue from TEL requirements. Revenue limits typically do not apply to transfers from a BSF to a general fund. So, if funds build up in

the BSF above the level deemed prudent for addressing fiscal gaps, the state can spend more by transferring funds from the BSF. This is one-time money, however, and states get into problems the next year if the typical revenue streams haven't materialized.

But BSFs may not be enough to weather multiyear fiscal downturns. Conant (2010b), in a qualitative case study review of state budgets during the Great Recession, found that Georgia, Virginia, and Massachusetts all had well-stocked rainy-day funds before the recession, which helped them weather the storm but did not negate the need for spending cuts, tax increases, and other budgetary fixes (Conant 2010a, 2010b; Lauth 2010; Wallin and Snow 2010).<sup>47</sup> Sobel and Holcombe (1996) pointed out that most pressure on state budgets is not due to cyclical revenue volatility. Revenue volatility is a short-term problem, while spending obligations like Medicaid and pensions will continue to put pressure on states. BSFs can help with cyclical fiscal challenges but not structural ones, in which the long-term revenue trend does not match the long-term expenditure trend (Francis and Sammartino 2015).

Galle and Stark (2012) suggested that the federal government help stabilize state budgets during recessions, given that BSFs often suffer from underfunding and thus are insufficient to meet states' needs during downturns. The most effective BSF policies at the state level, they concluded, would require states to save during expansions and would limit withdrawal except in economic crises.

Some scholars have suggested BSFs as a tool to offset the procyclical effects of stringent BBRs, or to mitigate the effects of rising revenue volatility (Boyd and Dadayan 2014; Boyd, Dadayan, and Ward 2011; Mattoon and McGranahan 2012; Mitchell and Tuszynski 2012). Hou (2006) recommended that states use rainy day funds in combination with multiyear forecasting to compensate for forecasting errors, acknowledging that accurate multiyear forecasting may be beyond many states' technical capacity. Schunk and Woodward (2005) and the Pew Charitable Trusts (2014a, 2015a) also recommended that states adopt stabilization funds to offset inevitable forecasting errors.

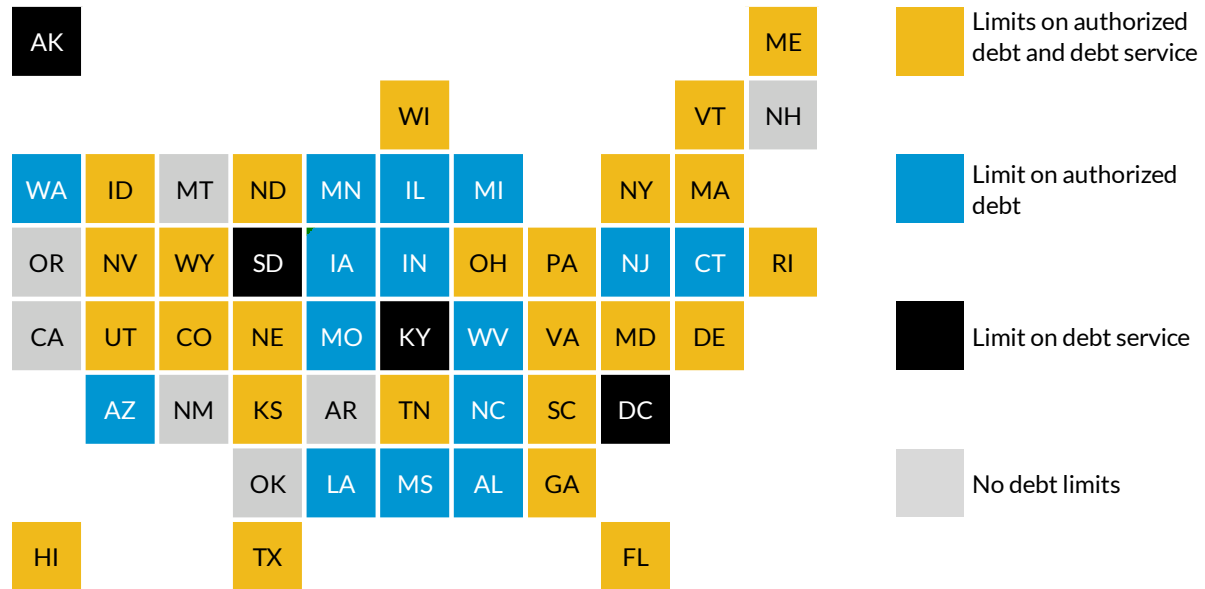
## DEBT LIMITS

Debt limits either cap states' ability to take on new debt or limit debt service payments. As statutory or constitutional provisions, debt limits typically either cap total debt at a certain number or limit it to a certain percentage of revenues. Some states require a vote to issue new debt (box 9).<sup>48</sup> In 2015, 40 states reported limitations on authorized debt (figure 14). Additionally, 28 states and DC placed limitations on debt service. In 1977, by comparison, only 30 states reported constitutional debt restrictions (NASBO 1977).<sup>49</sup>

FIGURE 14

Debt Limits in the States

2015



Source: NASBO (2015).

Fiscal Effects

Literature suggests that debt limits are associated with lower general obligation debt (Bohn and Inman 1996; Kiewiet and Szakaly 1996; Nice 1991; Von Hagen 1991). Bohn and Inman (1996), for example, found that states requiring a voter referendum on new long-term debt took on less debt. This resulted in reduced capital investment, which isn't necessarily surprising given most infrastructure is often funded through bonds (Bohn and Inman 1996). Von Hagen (1991) also found that lower limits on general obligation indebtedness were associated with less general obligation debt. Kiewiet and Szakaly (1996) found that voter debt referenda and prohibitions on guaranteed debt effectively reduced general obligation indebtedness, but that states might devolve debt issuance to local governments. Moreover, states requiring a supermajority vote of the legislature (but not the public) to take on debt had *higher* debt than states without any debt limits at all. This suggests a "borrowing logroll" effect at the legislative level, wherein debt is used as a political bargaining chip to smooth the passage of legislation (Kiewiet and Szakaly 1996).

While debt limits produce lower general obligation debt, Von Hagen (1991) found that they were associated with higher unrestricted debt, such as revenue bonds and other forms of debt not guaranteed by the full faith and credit of the state (Von Hagen 1991). Bunch (1991) also found that debt



limits were associated with higher unguaranteed revenue debt, while Kiewiet and Szakaly (1996) found that debt limits were correlated with debt issued through public authorities and local governments. However, these results are not universal. For example, Nice (1991) found no effect of debt limitations on unguaranteed debt.

These findings suggest that states can circumvent strict debt limitations by devolving debt to other public entities and local governments, or by substituting general obligation debt for less desirable forms of public borrowing. Thus, debt limits might do more to change the debt instruments or parties involved rather than reduce borrowing itself. The literature does not identify mechanisms for preventing such circumvention. For other budgetary institutions, stringency produces more compliance. Yet, strictness in debt limitations may simply obscure state indebtedness. This may, in part, be the result of how debt limits were originally designed, especially those passed early in the 20<sup>th</sup> century. For example, in 1912 Arizona adopted a constitutional limit on general obligation debt of \$350,000 that does not change or recognize growth in population or economic activity. Critics have argued that the state's debt limit is outdated and encourages the state to engage in creative accounting gimmicks to circumvent it.<sup>50</sup>

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## BOX 9

### Designing a Debt Limit

Debt limits vary widely across states, and more research is needed on the effects of debt limit design. States make choices about the types of debt they limit and the stringency of those limitations. The National Association of State Budget Officers documents state self-reported variation on

- constitutional versus statutory provisions,
- the level of the cap,
- whether the cap is tied to a specific threshold or a percentage of forecasted revenues, and
- type of debt to which the limit applies, such as short-term or long-term debt.

Denison, Hackbart, and Moody (2006) recommended that, when establishing debt limits, states consider the source of financing and type of debt to which the limits apply. For example, does the state finance its debt from the general fund or a special revenue fund? Does the limit apply only to debt guaranteed by the full faith and credit of the state, or also to unguaranteed debt?

## THE LINE-ITEM VETO

Governors can influence their budgets by vetoing them in their entirety or by exercising the line-item veto (box 10). The line-item veto permits governors to veto specific items in the budget at their discretion. In 2015, 44 states and DC permitted the governor to line-item veto specific budget items. In 1987, 41 states permitted line-item vetoes.

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### BOX 10

#### Debating the Line-item veto in Rhode Island

Over the past several years, line-item veto advocates in Rhode Island have routinely introduced a constitutional amendment that would grant the governor this authority. Championed by former gubernatorial candidate Ken Block and groups such as Common Cause Rhode Island, advocates have claimed that introducing a line-item veto would “balance the power between the branches of government.”<sup>a</sup>

In 2016, the *Providence Journal* published an editorial claiming that the lack of a line-item veto made it too easy to include special interest spending in the budget bill, granting legislators too much power. The editorial stated that “government malfunctions when legislative leaders are grotesquely powerful.”<sup>b</sup> The Rhode Island debate illustrates the popular perception of the line-item veto as a tool to reign in wasteful spending. Moreover, it showcases the strong political dynamics at play between the legislative and executive branches. This is consistent with literature suggesting that the line-item veto can tip power from the legislature to the governor, even if it does not reduce spending.

<sup>a</sup> Kate Nagle, “Mattiello Calls Line-Item Veto a Distraction,” *GoLocal Prov*, March 12, 2015, <http://www.golocalprov.com/politics/new-mattiello-calls-line-item-veto-a-distraction>.

<sup>b</sup> “Editorial: R.I. Needs a Line Item Veto.” *Providence Journal*, February 23, 2016. <http://www.providencejournal.com/opinion/20160223/editorial-ri-needs-line-item-veto>.

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#### Fiscal Effects

The prevalence of the line-item veto across states and years makes it difficult to parse out its effect on fiscal outcomes such as spending or revenues. Despite this challenge, the literature tends to conclude that line-item veto power has no effect on state spending. In an early study on the line-item veto, Abrams and Dougan (1986) found no effect on state spending. However, the study employed a simple single-equation cross-sectional model vulnerable to endogeneity, therefore undermining its causal strength (Gordon 2012a). Alm and Evers (1991) found that it reduced spending, but only by a small amount and under divided government. Besley and Case (2003) found a sizable reduction in per capita spending, but again only under divided government. By comparison, several studies found no

relationship between the line-item veto and spending (Abrams and Dougan 1986; ACIR 1987; Lauth and Reese 2006; Nice 1988).

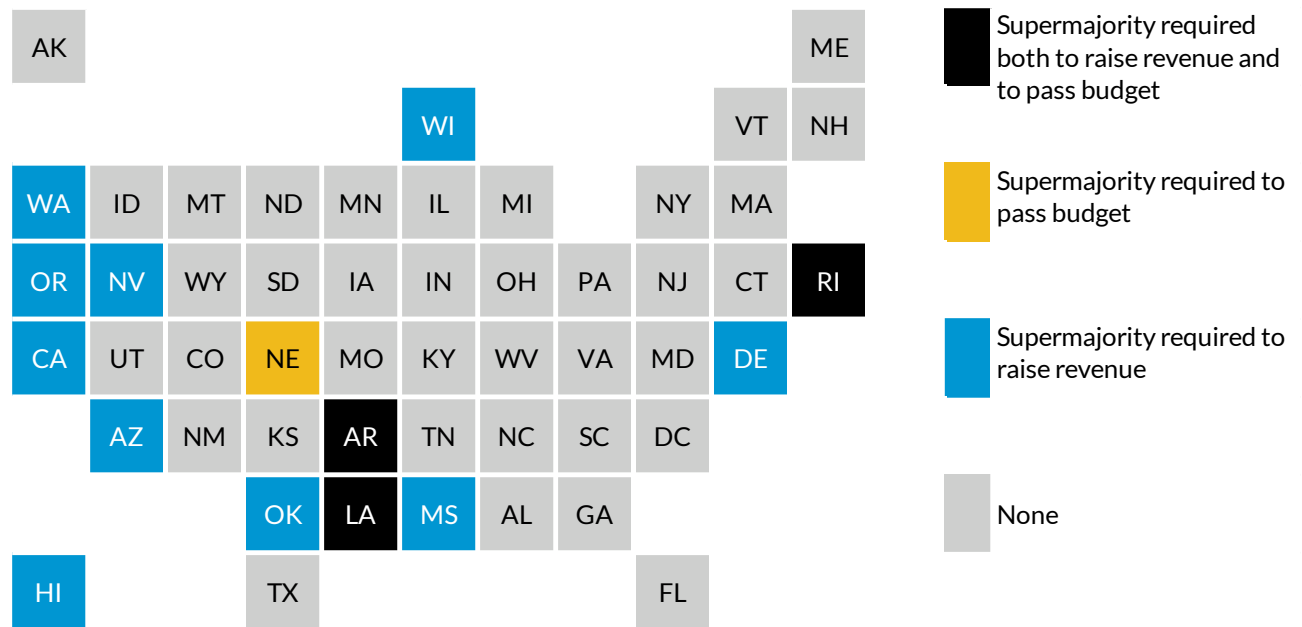
Dearden and Husted (1993) focused not on spending, but on whether the line-item veto increased gubernatorial influence, concluding that it allowed the governor to achieve a budget closer to his or her preferred budget. In a case study on Georgia, Lauth and Reese (2006) also found that the line-item veto was used to protect executive budget priorities, rather than to reduce spending.<sup>51</sup> Thus, the evidence suggests that the line-item veto increases the governor's influence over the budget and spending priorities. And this is most likely under split-branch government when the governor is of a different party than the legislature.

### **SUPERMAJORITY BUDGET RULES**

Supermajority budget rules require a state to obtain more than a majority vote of the legislature, typically two-thirds or three-fifths, to pass a budget bill. Supermajority budget rules are rare (figure 15). In 2015, only four states imposed supermajority voting rules to pass a budget: Arkansas, Louisiana, Nebraska, and Rhode Island. Supermajorities to raise new taxes (discussed both in this section, as well as in the next section, Tax and Expenditure Limits) are present in 13 states. Critics of supermajority budget requirements have argued they cause late budgets and political gridlock, while proponents claim that they restrain government spending (Macías and Ross 2010). Empirical research suggests, however, that both claims are likely overstated.

FIGURE 15

**Supermajority Budget and Revenue Rules in the States, 2015**



Source: NASBO (2015).

**Fiscal Effects**

Research on supermajority budget requirements is relatively scarce, in part because few states have adopted such provisions. Additionally, fiscal and political conditions that vary across states may confound any perceived relationship between supermajority rules and budget outcomes (box 11). Lee (2015) found that, in states with many legislative districts, supermajority rules (including those that apply to the budget as well as to new taxes) were more likely to result in increased spending.<sup>52</sup> Lee concluded that these rules required buy-in from more district representatives, which resulted in logrolling, making deals to secure votes. Contrary to the belief that supermajority requirements would restrain spending, it appears they make higher spending necessary to form a winning budget coalition. Louk and Gamage (2015) referred to the supermajority voting rule as a “vetogate” that grants the minority party more power than it would otherwise have in the budget process.

Supermajority rules may not be the primary culprit for late budgets. Klarner, Phillips, and Muckler (2012) found no relationship between supermajority voting requirements and late budgets, for example. They found, rather, that divided government and complexity of the budget, among other factors, were more likely to predict a late budget. Examining budget completion dates from 1988 to

2007, Andersen, Lassen, and Nielsen (2012) also found that divided government and signs of fiscal distress, such as changes in the state unemployment rate, drove late budgets. However, a supermajority requirement may interact with the political makeup to contribute to delayed budgets.

For example, California has a history of divided government, a political condition research has shown can drive late budgets. Either split branches or a split legislature can contribute to late budgets (Andersen, Lassen and Nielsen 2012; Klarner, Phillips, and Muckler 2012). California's tendency to pass a late budget, therefore, may be more an outcome of its political characteristics than of the supermajority budget rule in place from 1933 to 2010 (Macías and Ross 2010). However, one argument for repealing the supermajority requirement was to allow the state to pass that year's budget more promptly.

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#### BOX 11

##### **Supermajority Budget Rules in California**

Before 2010, California was one of the few states that imposed a legislative supermajority to pass a budget. In 1995 and again in 1998, the California Citizens Budget Commission recommended that the state drop its two-thirds majority budget rule, arguing that the provision did nothing to reduce spending and merely contributed to political gridlock (California Citizens Budget Commission 1995, 1998). Cain and Mackenzie (2008), in a Public Policy Institute of California report, also concluded that the supermajority rule did not effectively constrain spending—California's spending and revenues were similar to outcomes in less institutionally constrained states. In 2010, California voters passed Proposition 25, or the Passing the Budget on Time Act, which reduced the requirement to a simple majority.<sup>a</sup> In an overview of Prop 25 and California's budget, however, the California Budget and Policy Center suggested the ballot measure would not correct the state's most pressing budget woes (Macías and Ross 2010).

<sup>a</sup> Nicholas Goldberg, "Supermajority Rule: Good or Bad?" *Los Angeles Times*, March 22, 2009, <http://articles.latimes.com/2009/mar/22/opinion/oe-goldberg22>.

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#### TAX AND EXPENDITURE LIMITS

State TELs restrict the growth of government revenues or spending by capping them at a fixed-dollar amount, or by limiting their growth to match increases in population, inflation, personal income, or some combination of those factors (box 12).<sup>53</sup> As of 2015, 28 states had either an expenditure or a tax limit in place (not including states with supermajority rules). In 1987, by comparison, 33 states had either an expenditure or a revenue limit on their books, with some states adopting and others dropping their

TEs during this period.<sup>54</sup> Moreover, in 2015, 13 states required a supermajority vote of the legislature to raise taxes, effectively functioning as a tax limit.

Some states have also adopted limitations on local property taxes, such as Proposition 13 in California and Proposition 2½ in Massachusetts. While these provisions do not directly affect state revenues, they can affect state budgets indirectly by reducing local funding for services like K–12 education, increasing the need for state contributions. Many such limits emerged during the “tax revolt” of the late 1970s and the economic recession of the early 1990s (Gordon 2012a). In the 1990s, for example, Oregon passed Measure 5 (a property tax limit) and Colorado enacted its Taxpayers Bill of Rights (TABOR), two of the more stringent TEs currently in place. Although many well-known local property tax limits, such as Proposition 13, were adopted through citizen initiatives, most TEs originated in state legislatures. As of 2015, nine states had passed their TEs through voter initiatives and two through constitutional conventions, with the remainder adopted through legislation.<sup>55</sup>

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## BOX 12

### Designing a Tax and Expenditure Limit

TE design varies across states. States may cap tax increases or spending at a fixed-dollar amount, or limit growth to increases in population, personal income, inflation, or some combination of those factors. In addition, a TE’s binding power depends on the rules for overriding these limits. In some instances, the legislature can override a limit with a simple majority, while others require a supermajority or voter approval. TEs vary per the following characteristics:

**Spending versus revenue limits.** Limits can be placed on revenue, appropriations, or both. Typically, states limit the ability to appropriate or spend funds, rather than limit revenue collected. In 2015, 25 states imposed limits on spending or appropriations (two of which also limited revenues, and 11 of which also imposed supermajority requirements to raise new taxes). By contrast, only five states limited revenue (two of which also capped spending and none of which imposed supermajority requirements to raise new revenues) (figure 16).<sup>a</sup>

**Mechanism.** The limit can either be a cap on growth or a restriction on the level. The most common formula restricts expenditure growth to the pace of personal income.

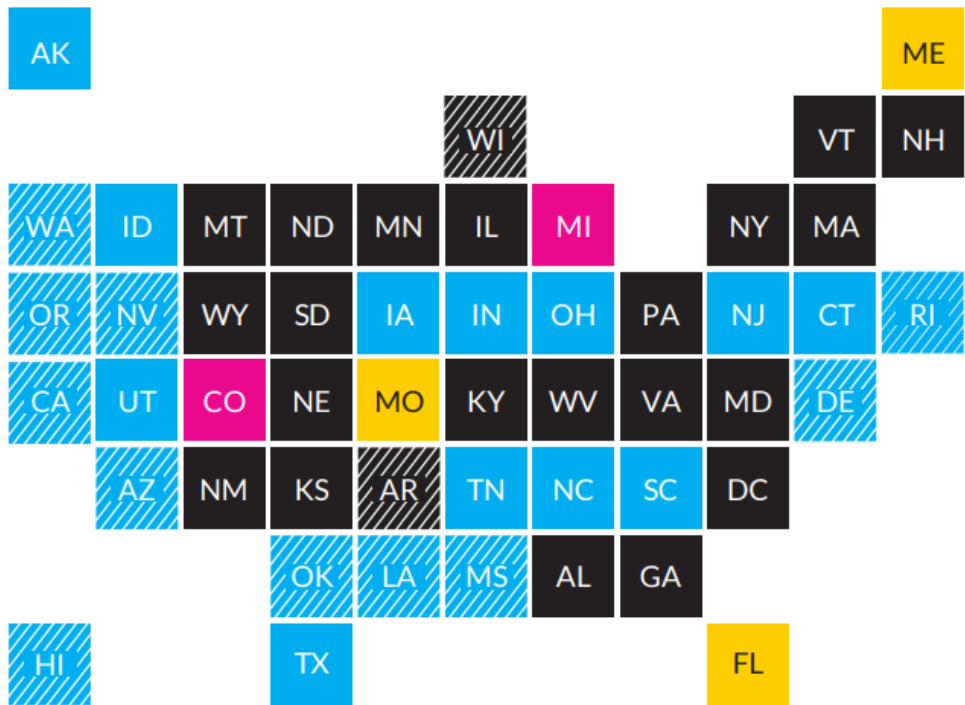
**Stringency.** In general, TEs set in state constitutions are more difficult to change or override than statutory TEs. By the same token, TEs imposed directly by voters rather than by legislators are more restrictive (New 2010). More often, the measure of a TE’s stringency is how and whether the governor and legislature can override the cap or whether they need voter approval to override or amend limits.

FIGURE 16

**Tax and Expenditure Limits in the States**

2015

None 
  Appropriation limit 
  Revenue limit 
  Appropriation and revenue limit  
 Solid fill, simple majority to raise revenues 
  Textured fill, supermajority to raise revenues



Source: NASBO (2015).

Note: This figure excludes Illinois' temporary appropriations limit, which was only in effect from 2012 to 2015. Information on Delaware's TEL is from Bert Waisanen, "State Tax and Expenditure Limits" (Washington, DC: National Conference of State Legislators, 2010).

<sup>a</sup> Provisions that require more than a majority vote to raise taxes or revenues can function effectively as revenue limits, but are counted separately from limits that states peg to a specific threshold, number, or growth rate. Thirteen states imposed supermajorities to raise new taxes in 2015 while five states imposed other kinds of revenue limits.

**Fiscal Effects**

Evidence on whether TELs limit state and local spending is mixed. While some earlier studies suggested that TELs have no effect (e.g., Bails 1990),<sup>56</sup> a larger and more methodologically robust body of literature suggests that TELs result in lower taxes, revenues, and spending (McGuire and Rueben 2006; Poterba 1994; Rogers and Rogers 2000; Rueben 1996). Rueben (1996) found that TELs requiring a

legislative supermajority or popular vote to modify spending led to a 2 percent reduction in state general fund expenditures. However, these savings were often offset in part by higher local spending. Rogers and Rogers (2000) reported that statutory revenue limits reduced the size of government in terms of both revenues and expenditures, while expenditure limits only reduced revenues and to a lesser degree than revenue limitations. Rogers and Rogers actually found a positive relationship between expenditure limits and overall expenditures, but pointed out that high-spending states may be more likely to adopt expenditure limits to rein in spending. McGuire and Rueben (2006) reviewed recent literature and concluded that some of the strictest TELs were successful in lowering taxes and spending.

Lower spending and revenues, however, may not produce desirable fiscal or economic outcomes. TELs have been tied to structural deficits and higher borrowing costs, while some studies have found no discernable effect on economic growth (Bae, Moon, and Jung 2012; Campbell and Sances 2013; McGuire and Rueben 2006; Poterba and Rueben 2001). McGuire and Rueben (2006), for example, found that Colorado's TABOR did not boost the state's economic growth, despite its effect on revenues and spending.<sup>57</sup> Moreover, they found that the literature was inconclusive as to whether lower taxes produced higher economic growth. In a more recent study, Gale, Krupkin, and Rueben (2015) found that tax cuts did not necessarily lead to economic growth. Bae, Moon, and Jung (2012), in a quantitative evaluation of TELs, found that they actually have a negative effect on employment and no effect on personal income.<sup>58</sup>

Whereas stringent BBRs were associated with lower borrowing costs when states experienced unexpected deficits, Poterba and Rueben (2001) found that tax limits, but not expenditure limits, raised borrowing costs. Revenue limits can affect a state's ability to make debt payments, they posited, while in contrast, limits on current spending could increase a state's ability to pay off debt (often not covered by expenditure limits). Tax limits restrict states' ability to raise revenue to meet their spending and debt obligations. The risk of failing to raise sufficient revenue results in higher borrowing costs for state governments.

Rubin (2005), in a review of public finance literature, suggested that TABOR created a structural deficit because it returned surpluses to the voters instead of funding programs or depositing savings into a stabilization fund. In 2005, Colorado voters approved Referendum C, which loosened many of TABOR's most stringent provisions and eliminated the "ratchet-down effect," wherein any drop in revenue below the TABOR limit would result in an even tighter revenue limit the following year (Watkins 2009). Kousser, McCubbins, and Moule (2008) found that TELs were largely ineffective because legislators could circumvent them by raising fees. Gordon (2012a) noted that, while the study



offered an improvement on methodological rigor over studies in the 1990s, it still did not consider endogeneity.

Rubin (2005) suggested that states are more likely to adopt TELs because of their electoral institutions, initiative rules, or other endogenous voter preferences, rather than as a response to high taxation. TELs, Rubin explained, are more likely to originate in states where it is easier to place items on the ballot, regardless of the taxation residents face. Besley and Case (2003) found that states with binding revenue limitations were more likely to have higher taxes, illustrating the endogeneity challenge. Understanding the effect of TELs is hampered by the difficulty of identifying a variable related to their implementation and adoption, but it is unrelated to the underlying fiscal activity of the state. Identifying such an instrumental variable would curb the endogeneity challenges that undermined prior studies' causal strength

Wagner and Sobel (2006) found that states with TELs were more likely to adopt BSFs with loose withdrawal requirements, possibly to protect revenue from TEL requirements. TELs and property tax limits also influence the level of government responsible for raising or deciding on the allocation of revenues. For example, if states limit property value assessments but not tax rates, cities and school districts could raise rates to make up for reductions in the tax base (Haveman and Sexton 2008). TELs, especially those that restrict both municipal and county governments, are associated with a greater reliance on special districts (Carr 2006) and can result in states shifting costs to local governments or vice versa (Rueben 1996).

## **Budget Transparency Measures**

Making budget information clear and accessible to the public is considered a pillar of budgeting best practice. Transparency measures enhance accountability and provide stakeholders, the public, and policymakers with the information they need to make good budgeting choices. Contrary to popular perception, research demonstrates that transparency is often associated with larger government. Improved transparency enhances people's trust in their elected officials, boosts gubernatorial popularity, and mitigates the electoral backlash from tax raises (Alt and Lowry 2010; Alt, Lassen, and Skilling 2002). Below, we review literature transparency measures as they relate to pension accounting and tax expenditure reporting.

## PENSION ACCOUNTING

Public disclosure of states' annually required contribution (ARC) or actuarially determined employer contribution (ADEC) to employee pension plans is of increasing interest to state budget researchers.<sup>59</sup> Only 17 states and DC disclosed ARCs in their budget documents in 2015 (NASBO 2015), and pension underfunding has been an ongoing challenge for many states. In 2014, the Urban Institute found that more than half of all states had pension funding ratios of less than 75 percent, assigning them letter grades of either D or F.<sup>60</sup> In 2014, unfunded state and local pension liabilities were estimated at \$1.3 trillion, or 60 percent of these governments' annual revenue.<sup>61</sup> While pension accounting represents a large body of literature, beyond the scope of this report, we highlight the challenges policymakers often confront when making pension choices.

Does pension underfunding affect fiscal outcomes? Burson and coauthors (2014) found that pension underfunding adversely affected borrowing costs in the municipal bond market after the 2007 recession, but that the effects were small compared with overall credit risks in the economy. They noted that annual contribution as percentage of ARC is, moreover, not the most robust measure of pension stress, since employers can manipulate the ARC by changing assumptions about payroll growth. Bond holders may be unconcerned about unfunded pension liabilities because they believe their claims are more secure than those of pensioners and workers. These state-specific legal questions could be tested in the future. The Congressional Budget Office (Russek 2011) expressed concern that rising pension liabilities, coupled with years of underfunding based on poor actuarial assumptions, would eventually require increases in taxes or reductions in services, or possibly even fall on the federal government.

States have underfunded their pensions by underestimating their liability, overestimating future market returns, or choosing to fund below the annual recommended contribution. Poor investment returns during the 2007 recession exacerbated pension underfunding. While market returns have been stronger in recent years, and some states have taken steps to reform payments and adopt more conservative return assumptions, uncertainty remains about how future liabilities will affect state budgets.

Accounting methods affect the long-term valuation of both assets and liabilities and the estimation of pension liability. Russek (2011) evaluated the pros and cons of using either the pension accounting standard encouraged by the Governmental Accounting Standards Board, or GASB (before 2014 changes) or the fair-market approach more commonly employed by the corporate sector. GASB's approach before 2014 used a higher discount rate, which led to underestimation of pension liabilities compared with the fair-market approach (Brown and Wilcox 2009). However, switching to a fair-

market approach, Russek pointed out, could produce a sudden and significant increase in estimated pension liability, causing states to fund more than may be necessary to achieve long-term solvency.

In 2014, GASB revised its pension accounting standards with possible implications for pension underfunding. One major change was to measure assets at fair-market value (rather than actuarially smoothed over the long term), and another was to use a blended discount rate for liabilities. The changes also eliminated the ARC and replaced it with the ADEC. Aubry, Crawford, and Munnell (2017) found that pension funding dropped in 2016 under both the new and the old accounting methods, largely from poor stock market performance. The authors also predicted that insufficient annual contributions will likely be a primary contributor to pension underfunding going forward. They recommended that states establish more rigorous contribution levels.

Boyd and Kiernan (2014) recommended that states take four steps for better pension planning: (1) value long-term liabilities using a discount rate that reflects risk in expected payments, (2) disclose the consequences of investment risk, (3) place external pressure to reduce investment risk, and (4) pay realistic actuarially determined contributions.

Thom and Randazzo (2015) found that states with smaller budget deficits funded their pensions more generously, while legislative professionalism and constitutional collective bargaining reduced pension funding.<sup>62</sup> The authors suggested that other fringe benefits may crowd out pensions, thus producing a negative relationship between ARC contributions and collective bargaining rights. Professional legislatures with more staffing support, moreover, may be able to find more ways to circumvent pension obligations, leading to less funding of the ARC. They found that changes in revenue or balance budget requirements had no effect on pension contributions.

## TAX EXPENDITURE REPORTING

States spend money through their tax codes by giving corporations tax breaks to locate in the state, granting earned income tax credits to low-income families, or providing other types of tax credits to firms, nonprofits, or other entities whose activities the state wants to encourage. Tax expenditure reporting, especially for corporate tax subsidies, has recently become more popular as policymakers and stakeholders seek more information about the costs and benefits of these programs.

Historically, states have not kept good track of their tax expenditures. In 2017, 49 states and DC produced public tax expenditure reports, offering varying levels of detail on spending through the state's tax code (Institute on Taxation and Economic Policy 2017). However, the budget agency was responsible for preparation in only 15 states (NASBO 2015), suggesting that in many states tax

expenditure reporting is siloed from the rest of the budget process and may not be considered when other decisions about the budget and programs are made. Many states rely on firms that receive subsidies to share performance data (Francis 2016). This means that states often do not have an independent way of obtaining data on tax expenditures, making it difficult to account for them in the budget or to rigorously evaluate program performance.

Mikesell (2002) found that most states did not make a direct connection between tax expenditures and the more traditional budget appropriations process. He argued that states need to better define their spending and revenue baselines so that lawmakers and the public can better gauge the fiscal effects of tax expenditure programs. He recommended defining a baseline for tax expenditures, just as we do with more traditional spending programs, so that the public can see the full effect of each expenditure on the budget and forecast it accurately. In 2015, GASB adopted a new rule (statement 77) that requires state and local governments to disclose tax abatements and their effects on revenues. Statement 77 will hopefully enhance transparency for state tax expenditures (Francis 2015). Pew (2015a) concluded that tax incentives can introduce risk into a budget because such mandatory spending is not well tracked. Pew recommended lawmakers introduce measures to control risk by capping tax expenditures, limiting the window of redemption for tax credits, and forcing lawmakers to “pay” for the tax incentives through budgetary appropriations. Lawmakers should define their goals and objectives related to tax expenditure programs, then evaluate whether these programs help them achieve these goals and at what cost (Pew Charitable Trusts 2012, 2015c).

## Recommendations and Conclusion

This report describes what we know and do not know about the wide range of institutional constraints and choices policymakers face when budgeting at the state level. Researchers, academics, and practitioners should take additional steps to flesh out the evidence base for state budgeting practices, paying close attention to interaction between institutions, institutional design choices, the metrics and evidence used to define success, and mechanisms for practical implementation.

When adopting new institutions or implementing new spending areas, legislatures must understand and state what they hope to accomplish. Then, evaluating costs and outcomes against implementation can inform either their own or other states’ decisionmaking going forward.

## Focus on Sustainable Systems

Literature suggests that, while it may be easier to evaluate budget practices one at a time, from budget cycle to budget cycle, institutions interact with one another over the long term. States should consider their institutions as tools that work together to promote long-term sustainability, not as singular institutions that function in isolation.

Looking at fiscal institutions as toolkits, rather than as stand-alone practices, will help states understand where trade-offs occur over the long term. While some institutions may successfully change one fiscal metric, this may cause challenges elsewhere. Budget institutions that promote discipline in the short term may contribute to volatility and undermine long-term fiscal sustainability. Strict BBRs, for example, can rein in spending and reduce borrowing costs, but may force damaging program cuts or tax increases during economic recessions. The state may also trade away its long-term stability for a current balanced budget by closing gaps through either explicit or implicit borrowing. Tax limits may reduce growth in taxation and limit the size of government but restrict states' ability to raise revenues to pay off debts or cover unexpected shortfalls. State TELs may also push responsibility to city or county agencies, which may be even less able to handle unexpected shortfalls. Focusing on single short-term metrics may obscure the trade-offs or long-term effects inherent in common budget practices. It would be important for us to have better information on the complementarity of these institutions and on their longer-term effects.

**Pair strict balance budget requirements with contributions to a BSF.** Research suggests that BBRs have a beneficial disciplinary effect on state budget balances. States with strict BBRs respond more quickly to deficit shocks. However, some research also suggests that BBRs make it more difficult for states to respond to revenue shortfalls during a recession without exacerbating the business cycle and volatility. States are also more prone to cut services, rather than raise taxes, to meet BBR requirements, meaning that strict BBRs can result in cuts to school aid or restricted eligibility for optional Medicaid programs, for example. Contributing to a BSF during good times can offset such volatility effects during economic downturns. States would not have to immediately engage in deep program cuts or tax hikes to balance their budgets. BSFs also have their limitations and may not be able to prevent deep program cuts during multiyear recessions, but they can be designed to smooth the relationship between cyclical revenue streams and more constant spending needs.

**Reform TELs that prevent states from saving during good times or raising revenues during economic downturns.** Research shows that TELs can effectively restrain spending and revenues. However, limiting revenues can have detrimental fiscal effects. There is little evidence to date that TELs

promote economic growth. Moreover, the strictest tax limitations, like the original implementation of the TABOR rule in Colorado, can prevent states from saving revenues in rainy day funds to cushion against downturns. Similarly, TELs can hinder states from raising necessary revenues to cover budget shortfalls during economic downturns. Having procedures that allow states to reconsider TELs, as well as designing them to prevent unintended consequences, will give states the fiscal restraint they want while allowing them to effectively govern.

**Reform or eliminate practices that obscure long-term costs or erode stability.** While some studies have found that current services budgeting, for example, may increase spending, a failure to account for caseload growth and inflation may erode long-term fiscal planning efforts. Term limits, although often perceived as a political accountability mechanism, cause fiscal volatility by encouraging policymakers to hold down spending during election years then allow it to spike during the lame duck term. Debt limitations may be circumvented by pushing debt onto lower levels of government or by taking on more unguaranteed debt—an outcome that could undermine long-term fiscal sustainability. Failing to report tax expenditures or annual required pension contributions can obscure long-term spending and fiscal obligations. Policymakers should reexamine institutions that make planning and understanding costs more difficult.

## Focus on Design

For virtually every budgetary institution covered in this report, research confirms that details matter. BSFs with loose deposit and withdrawal rules do not encourage savings as effectively as BSFs with strict rules. Strict BBRs allow states to reduce deficits more effectively than BBRs that allow states to carry deficits from one year to the next. TELs that require a supermajority to override are more effective fiscal restraints than TELs requiring only a simple majority to override.

Although the research has elucidated some broad principles that states can use in designing various institutions, more research is needed to offer states evidence-based design recommendations. For example, although it is considered best practice for states to set deposit rules for BSFs, little information is available on how to craft these rules. Some research recommends that states perform individual volatility studies to peg contribution and withdrawal rules to their historic economic trajectories.

**Design BSF goals or limits with an understanding of states' revenue volatility.** Different states face different levels of revenue volatility caused by economic activities and tax systems. Legislators

should recognize these characteristics and choose BSF goals accordingly. States with more procyclical revenue systems should have higher goals or automatic contributions based on these funds (as do Alaska and, more recently, California). States should also design appropriate rules for withdrawal of funds to reflect likely circumstances. This means, in some instances, redefining the purpose of these funds from insurance against rare events to recognized budgeting tools that smooth predictable fluctuations in revenues.

**Invest in additional research on best design practices.** Researchers and policymakers should continue to build a robust body of evidence on design principles for various fiscal institutions, digging beneath the surface to obtain more nuanced detail on how design affects outcomes.

## Focus on Evidence

Research on state budgeting practices often presents conflicting conclusions. Findings are often shrouded in caveats and explanations of methodological weaknesses, and most researchers are careful to point out limitations. Conclusions vary based on an author's methodological choices. Assessing the strength of an academic study requires sophisticated knowledge of quantitative analysis. This complexity and the conflicting nature of academic findings may pose challenges to state policymakers who have neither the time nor the expertise to wade through conflicting econometric findings.

**Continue to invest in high-quality research.** Higher-quality research that uses longitudinal data—and that accounts for the possible reverse causality in adoption of rules on spending and tax levels, as well as for the complicated way institutions can interact and affect budget outcome—would clarify mixed findings and strengthen the evidence base for specific budget practices. Much of the literature is outdated, published in the 1980s and 1990s. The age of the literature is likely due in part to the challenges of conducting rigorous evaluation of state budget practices, some of which have been adopted widely and seldom change. Efforts to update previous work (for example, on TELs) have proven fruitful and clarified or reversed findings from previous, less rigorous research. More rigorous methods combined with more recent data can illuminate stronger causal relationships. Researchers can also use new estimation methods, like synthetic control studies, to examine the effects of new rules on both fiscal and economic outcomes.

**Consider multiple metrics and examine trade-offs over the long term.** Although it may seem simple to zero in on spending or deficits as a single measure of fiscal success, policymakers should incorporate multiple fiscal and economic metrics when adopting or reforming budgeting institutions.

For example, policymakers may wish to consider spending, revenues, budget balances, volatility, spending on functional categories or specific programs within the budget, debt, revenue-backed debt, personal income, GDP, income inequality, and other strategic measures of fiscal and economic health. Keeping a dashboard of metrics can help states understand where specific institutions perform best, what the trade-offs are, and how they can adopt a package of complementary fiscal institutions that mitigate one another's weaknesses while maximizing their benefits. These metrics could conceivably complement a dashboard of performance metrics for different programs, to gather more information about the effect of state budget institutions on the quality and performance of state services. States should refine their fiscal objectives, identify multiple metrics for success, and incorporate long-range budget goals into their planning.

**Examine social and economic outcomes.** Research on budget institutions tends to focus on fiscal effects but doesn't often touch on how budget institutions affect programs or people. The distributional effects of disciplinary fiscal institutions are understudied, and legislators may be concerned with outcomes beyond spending and debt. For example, they may want to know how BBRs affect children in families living under the federal poverty level, or how TELs affect educational outcomes at state universities. Research often touches on fiscal effects but leaves out nuance on specific policies' social and economic effects.

## Focus on Implementation

Research shows that there is sometimes a rift between what current literature has identified as best practice and practitioner experience. Some ideas that were popular in prior decades, such as PBB, have been lagging or backsliding in adoption. Although performance-based budgeting, for example, should theoretically help states prioritize allocation of dollars to effective programs, qualitative research reveals that budget analysts and agency leaders don't find PBB particularly useful. Researchers should consider how to marry empirical evidence with policymakers' need to implement their recommendations in a political environment. Collaborations between practitioners and researchers can reveal what details matter and how rules are translated into practice

**Understand and work with constraints imposed by political institutions.** A large body of literature reveals that party politics, electoral cycles, and other political institutions affect budget outcomes. For example, while the line-item veto has been touted as a tool for fiscal discipline, it functions to swing power to the governor in divided-government states. Many states have adopted this practice despite repeated research that it has little to no effect on state spending. Giving a governor this ability may be



helpful, but the public and legislators should understand where the benefits may lie. Rhetoric surrounding Rhode Island's consideration of the line-item veto was focused on the legislature's strength versus the governor's in setting the budget.

Political incentive or inertia may keep these practices in place, despite little evidence base to support their fiscal efficacy. There is often a fundamental tension between lawmakers' electoral incentives and sustainable long-term budgeting choices. The short-term budgeting window may be further exacerbated by political institutions such as term limits which, by their nature, shorten legislators' attention. Lawmakers function within very real political constraints. Actions are guided not just by cut-and-dry fiscal metrics, but by political institutions, party pressure, and electoral incentives. Policymakers can even experience electoral pressure to reduce taxes or spending based on a neighboring jurisdiction's taxing choices. Achieving real fiscal sustainability will require states to consider how fiscal institutions interact with political institutions and their own economic conditions.

Last, some research shows that poor design and poor understanding of electoral incentives may lead to unintended fiscal consequences. Some states have pushed debt onto local government entities, avoiding debt limitations. Clear design and a holistic accounting of political and fiscal incentives will create a clear plan for implementation that allows institutions to achieve their intended effect.

The large, but often conflicting, evidence base on state budget institutions makes it difficult to make strong claims or provide states with specific recommendations. However, researchers and policymakers can work together to build the evidence base and reorient the discussion toward long-term sustainability.

# Appendix A. State Budget Practices at a Glance

This report discusses a wide variety of state budgeting practices. Please refer to the following list for a brief definition of each institution, practice, or influencer.

**Annual budgeting:** A budgeting timeline that directs a state to produce its budget on a yearly basis.

**Balanced budget requirement (BBR):** A requirement for the state to balance its revenues and expenditures within the same budget cycle, prohibiting deficit spending.

**Biennial budgeting:** A budgeting timeline that directs a state to produce its budget every other year for the upcoming two fiscal years.

**Budget stabilization fund (BSF):** Also known as a rainy day fund, a special fund a state uses to save surplus revenue in case of an economic downturn.

**Consensus-based revenue forecasting:** A process for producing revenue estimates that involves participation from both the legislative and the executive branches, as well as from other stakeholders.

**Current services baseline:** A budgeting method that uses the previous year's spending as the foundation for this year's spending, but adjusted for growth in caseload, population, inflation, and other factors that increase over time.

**Debt limit:** A provision that prohibits the state from exceeding a certain level of debt or taking on additional debt service obligations.

**Deficit carryover provision:** A provision that allows states to carry a deficit over into the next fiscal year, even if the state technically has a balanced budget requirement that limits deficit spending.

**Divided government:** A political condition when two different political parties hold control over different parts of state government. Split-branch division occurs when one political party controls the governor's office while another controls the legislature. Split-legislative division occurs when one party controls the state house and another the state senate.

**Executive branch:** The branch of state government comprising the governor, the governor's budget office, and state agencies. The state budget will typically originate in the governor's office, with some exceptions.

**Governor's budget office:** The state agency that helps the governor prepare his or her budget for submission to the legislature. It may also assist in revenue forecasting, setting budgeting baselines, or making other policy recommendations.

**Judicial branch:** The branch of state government that includes the state court system, which is sometimes asked to weigh in on budgeting questions related to rights and adequacy.

**Line-item veto:** An institution permitting a governor to reject specific spending or revenue provisions in the budget bill without having to veto the entire budget.

**Legislative budget office:** An independent or semi-independent agency that provides nonpartisan budget support to the state legislature. The agency will often produce an analysis of the governor's proposed budget, provide fiscal notes for bills, and staff the legislative appropriations committees.

**Legislative branch:** The branch of state government comprising the state senate and house, and responsible for proposing a final appropriations bill to the governor.

**Performance-based budgeting (PBB):** A budgeting method that allocates funding to programs based on performance measures and efficacy, prioritizing funding for high-performing programs.

**Public pension:** A retirement program offered to state workers, funded partially through employee contributions and partially by state governments.

**Rating agency:** A private firm that assigns credit ratings to states and rates municipal bonds and private securities, signaling the security and reliability of investments to potential investors.

**Revenue forecast:** A prediction of how much revenue the state can expect to collect in upcoming fiscal years, given current tax and revenue policy and predicted economic conditions. The forecast may be informed by econometrics, a consensus process, or other methods.

**Supermajority budget rule:** A requirement that more than a simple majority of the legislature, usually two-thirds or three-fifths, votes for the budget bill for it to pass.

**Tax and expenditure limit (TEL):** A provision that bars a state from raising taxes or increasing expenditures beyond a specified dollar threshold or growth rate. It will sometimes allow overrides with a popular vote or a supermajority vote of the legislature.

**Tax expenditure:** A program or provision that allows the state to spend money through the tax code, such as certain business tax incentives or state earned income tax credit programs.

**Term limit:** A provision that limits policymakers from serving more than a specific number of terms. Term limits may apply to governors, house or senate members, or all the above.

**Voter initiative:** A process that allows voters, or the legislature, to place policy measures on the ballot for popular vote.

**Zero-based budgeting (ZBB):** A budgeting method that uses \$0 as the baseline for agencies' funding requests. Compared with incremental budgeting, which bases requests on previous levels of funding, zero-based budgeting requires agencies to justify each line item expense from the bottom up.

# Appendix B. Legislative Fiscal Offices

Below are names and hyperlinks to the fiscal office in each state responsible for providing budget and fiscal analysis to the state legislature.

Please note that Georgia, Michigan, Minnesota, Oklahoma, and Rhode Island have separate fiscal agencies dedicated to fiscal analysis within each cameral body. We classify these as independent because their mandate is to provide impartial analysis to their respective legislative bodies, and they are not housed within a specific committee or directed by legislators. Colorado, Louisiana, and Pennsylvania have independent legislative fiscal agencies in addition to a joint budget committee that performs fiscal analysis within the legislature.

TABLE B.1

**Independent Legislative Fiscal Offices**

State	Office name
AL	Legislative Services Agency, Fiscal Division <a href="http://lsa.alabama.gov/lfo/LFO.aspx">http://lsa.alabama.gov/lfo/LFO.aspx</a>
AK	Division of Legislative Finance <a href="http://www.legfin.state.ak.us/">http://www.legfin.state.ak.us/</a>
AZ	Joint Legislative Budget Committee <a href="https://www.azleg.gov/jlbc.htm">https://www.azleg.gov/jlbc.htm</a>
AR	Legislative Fiscal Service Division of the Arkansas Bureau of Legislative Research <a href="http://www.arkleg.state.ar.us/bureau/fiscal/Pages/default.aspx">http://www.arkleg.state.ar.us/bureau/fiscal/Pages/default.aspx</a>
CA	Legislative Analyst's Office <a href="http://www.lao.ca.gov/">http://www.lao.ca.gov/</a>
CO	Joint Budget Committee <a href="http://leg.colorado.gov/content/budget">http://leg.colorado.gov/content/budget</a> Legislative Council <a href="http://leg.colorado.gov/agencies/legislative-council-staff">http://leg.colorado.gov/agencies/legislative-council-staff</a>
CT	Office of Fiscal Analysis <a href="https://www.cga.ct.gov/ofa/">https://www.cga.ct.gov/ofa/</a>
DE	Office of the Controller General <a href="https://legis.delaware.gov/Offices/ControllerGeneral">https://legis.delaware.gov/Offices/ControllerGeneral</a>
DC	Office of the Budget Director <a href="http://dccouncil.us/offices/office-of-the-budget-director">http://dccouncil.us/offices/office-of-the-budget-director</a>
FL	Office of Economic and Demographic Research <a href="http://edr.state.fl.us/Content/">http://edr.state.fl.us/Content/</a>
GA	House Budget and Research Office <a href="http://www.house.ga.gov/budget/en-US/default.aspx">http://www.house.ga.gov/budget/en-US/default.aspx</a> Senate Budget and Evaluation Office <a href="http://www.senate.ga.gov/sbeo/en-US/Home.aspx">http://www.senate.ga.gov/sbeo/en-US/Home.aspx</a>

State	Office name
HI	Office of the Auditor <a href="http://auditor.hawaii.gov/">http://auditor.hawaii.gov/</a>
ID	Budget and Policy Analysis Division of the Legislative Services Office <a href="https://legislature.idaho.gov/lso/bpa/">https://legislature.idaho.gov/lso/bpa/</a>
IL	Commission on Government Forecasting and Accountability <a href="http://cgfa.ilga.gov/home.aspx">http://cgfa.ilga.gov/home.aspx</a>
IN	Office of Fiscal and Management Analysis in the Legislative Services Agency <a href="http://www.in.gov/legislative/pdf/services/LSAbackground.pdf">http://www.in.gov/legislative/pdf/services/LSAbackground.pdf</a>
IA	Fiscal Services Division of the Legislative Services Agency <a href="https://www.legis.iowa.gov/agencies/nonpartisan/lisa/fiscalServices">https://www.legis.iowa.gov/agencies/nonpartisan/lisa/fiscalServices</a>
KS	State Budget division of the Legislative Research Department <a href="http://www.kslegresearch.org/KLRD-web/Policy.html">http://www.kslegresearch.org/KLRD-web/Policy.html</a>
KY	Legislative Research Commission <a href="http://www.lrc.ky.gov/lrcpubs/lrcpubs.htm">http://www.lrc.ky.gov/lrcpubs/lrcpubs.htm</a>
LA	Legislative Fiscal Office <a href="http://www.lfo.louisiana.gov/">http://www.lfo.louisiana.gov/</a> House Fiscal Division <a href="http://house.louisiana.gov/housefiscal/default.htm">http://house.louisiana.gov/housefiscal/default.htm</a> Senate Fiscal Services <a href="http://senate.la.gov/FiscalServices/Overview.asp">http://senate.la.gov/FiscalServices/Overview.asp</a>
ME	Office of Fiscal and Program Review <a href="http://legislature.maine.gov/ofpr/">http://legislature.maine.gov/ofpr/</a>
MD	Fiscal and Policy Analysis in the Department of Legislative Services <a href="http://dls.maryland.gov/?page=84">http://dls.maryland.gov/?page=84</a>
MA	None
MI	Senate Fiscal Agency <a href="http://www.senate.michigan.gov/sfa/">http://www.senate.michigan.gov/sfa/</a> House Fiscal Agency <a href="http://www.house.mi.gov/hfa/home.asp">http://www.house.mi.gov/hfa/home.asp</a>
MN	House Fiscal Analysis Department <a href="http://www.house.leg.state.mn.us/fiscal/fahome.asp">http://www.house.leg.state.mn.us/fiscal/fahome.asp</a> Senate Counsel, Research and Fiscal Analysis <a href="http://www.senate.mn/departments/office_bio.php?office_id=1007">http://www.senate.mn/departments/office_bio.php?office_id=1007</a>
MS	Legislative Budget Office <a href="http://www.lbo.ms.gov/">http://www.lbo.ms.gov/</a>
MO	None
MT	Legislative Fiscal Division <a href="http://leg.mt.gov/css/fiscal/default.asp">http://leg.mt.gov/css/fiscal/default.asp</a>
NC	Fiscal Research Division <a href="http://www.ncleg.net/fiscalresearch/">http://www.ncleg.net/fiscalresearch/</a>
ND	Fiscal Services Division of the Legislative Council <a href="http://www.legis.nd.gov/legislative-council">http://www.legis.nd.gov/legislative-council</a>
NE	Legislative Fiscal Office <a href="http://nebraskalegislature.gov/divisions/fiscal.php">http://nebraskalegislature.gov/divisions/fiscal.php</a>
NH	Office of Legislative Budget Assistant <a href="http://www.gencourt.state.nh.us/lba/">http://www.gencourt.state.nh.us/lba/</a>
NJ	Legislative Budget and Finance Office in the Office of Legislative Services <a href="http://www.njleg.state.nj.us/legislativepub/budget.asp">http://www.njleg.state.nj.us/legislativepub/budget.asp</a>

State	Office name
NM	Legislative Finance Committee <a href="https://www.nmlegis.gov/Entity/LFC/Default">https://www.nmlegis.gov/Entity/LFC/Default</a>
NV	Fiscal Analysis Division of the Legislative Counsel Bureau <a href="https://www.leg.state.nv.us/Division/Fiscal/">https://www.leg.state.nv.us/Division/Fiscal/</a>
NY	None
OH	Budget and Fiscal Analysis section of the Ohio Legislative Service Commission <a href="https://www.lsc.ohio.gov/">https://www.lsc.ohio.gov/</a>
OK	Senate Fiscal Division <a href="http://www.oksenate.gov/staff/divfiscal.htm">http://www.oksenate.gov/staff/divfiscal.htm</a> House Fiscal Division <a href="https://www.okhouse.gov/Fiscal/Index.aspx">https://www.okhouse.gov/Fiscal/Index.aspx</a>
OR	Legislative Fiscal Office <a href="https://www.oregonlegislature.gov/lfo">https://www.oregonlegislature.gov/lfo</a> Legislative Revenue Office <a href="https://www.oregonlegislature.gov/lro">https://www.oregonlegislature.gov/lro</a>
PA	Legislative Budget and Finance Committee <a href="http://lbfc.legis.state.pa.us/About.cfm">http://lbfc.legis.state.pa.us/About.cfm</a> Independent Fiscal Office <a href="http://www.ifo.state.pa.us/About.cfm">http://www.ifo.state.pa.us/About.cfm</a>
RI	House Fiscal Advisory Staff <a href="http://www.rilin.state.ri.us/Pages/HouseFiscal.aspx">http://www.rilin.state.ri.us/Pages/HouseFiscal.aspx</a> Senate Fiscal Office <a href="http://www.rilegislature.gov/sfiscal/Pages/default.aspx">http://www.rilegislature.gov/sfiscal/Pages/default.aspx</a>
SC	Revenue and Fiscal Affairs Office <a href="http://rfa.sc.gov/">http://rfa.sc.gov/</a>
SD	Office of Fiscal Analysis in the Legislative Research Council <a href="http://sdlegislature.gov/">http://sdlegislature.gov/</a>
TN	Office of Legislative Budget Analysis <a href="http://www.capitol.tn.gov/joint/staff/budget-analysis/index.html">http://www.capitol.tn.gov/joint/staff/budget-analysis/index.html</a>
TX	Legislative Budget Board <a href="http://www.lbb.state.tx.us/">http://www.lbb.state.tx.us/</a>
UT	Office of the Legislative Fiscal Analyst <a href="https://le.utah.gov/lfa/">https://le.utah.gov/lfa/</a>
VT	Legislative Joint Fiscal Office <a href="http://www.leg.state.vt.us/ifo/">http://www.leg.state.vt.us/ifo/</a>
VA	Fiscal Analysis Services in the Joint Legislative Audit and Review Commission <a href="http://jlarc.virginia.gov/fiscal-analysis.asp">http://jlarc.virginia.gov/fiscal-analysis.asp</a>
WA	None
WV	Budget and Fiscal Affairs Division in the Joint Committee on Government and Finance <a href="http://www.legis.state.wv.us/Joint/budget.cfm">http://www.legis.state.wv.us/Joint/budget.cfm</a> Performance Evaluation and Research Division in the West Virginia Legislative Auditor <a href="http://www.legis.state.wv.us/joint/perd.cfm">http://www.legis.state.wv.us/joint/perd.cfm</a>
WI	Legislative Fiscal Bureau <a href="http://legis.wisconsin.gov/lfb/">http://legis.wisconsin.gov/lfb/</a>
WY	Budget and Fiscal Section of the Legislative Service Office <a href="http://legisweb.state.wy.us/LSOWeb/LegislativeServiceOffice.aspx">http://legisweb.state.wy.us/LSOWeb/LegislativeServiceOffice.aspx</a>

Source: Authors' compilation from National Conference of State Legislatures, "State Legislative Fiscal Offices Sites," March 31, 2016, accessed June 2, 2017, <http://www.ncsl.org/research/fiscal-policy/state-legislative-fiscal-offices-sites.aspx>; and Katherine

Barrett and Richard Greene, "State Budget Sources," Volcker Alliance, October 17, 2016, accessed June 2, 2017, <https://www.volckeralliance.org/publications/state-budget-sources>.

**Notes:**

**Alaska:** Alaska's Legislative Finance Division serves the Legislative Budget and Audit Committee with a nonpartisan staff.

**Arizona:** The Arizona fiscal office directly serves the legislature and is chaired by 16 legislators.

**Colorado:** The state of Colorado has both the [Colorado Joint Budget Committee](#), which serves the appropriations committees in the General Assembly, and a fiscal division within the independent Colorado Legislative Council.

**Delaware:** In Delaware, the Office of the Comptroller General provides fiscal and budget analysis to the appropriations committees.

**District of Columbia:** The District has an [Office of Revenue Analysis](#) in addition to the Office of the Budget Director.

**Florida:** The Florida Office of Economic and Demographic Research studies topics such as revenue, financial outlook, and other research areas. Florida also has a Joint Legislative Budget Commission chaired by house and senate members.

**Georgia:** Georgia has separate fiscal research agencies for the house and the senate.

**Hawaii:** In Hawaii, the Office of the Auditor provides fiscal analysis.

**Illinois:** The Commission on Government Forecasting and Accountability provides revenue analysis and is chaired by members of the house and the senate.

**Kentucky:** Kentucky has the Legislative Research Commission, the leadership of which consists of house and senate members.

**Louisiana:** Louisiana also has fiscal services divisions that serve the house and the senate separately.

**Massachusetts:** Massachusetts has appropriations committees that do analysis in the house and the senate, but no legislative service or agency that performs fiscal analysis.

**Michigan:** Michigan has separate fiscal agencies for the house and the senate.

**Minnesota:** Minnesota has separate fiscal agencies for the house and the senate.

**Missouri:** Missouri has house and senate appropriations committees, but no office to provide analysis.

**New Mexico:** New Mexico has a Legislative Finance Committee that provides analysis and is led by a senator and a representative.

**New York:** New York has only appropriations committees for each house, no analytical arm.

**Oklahoma:** Oklahoma has a separate fiscal analysis division for the house and the senate.

**Oregon:** Oregon also has a revenue office.

**Pennsylvania:** Pennsylvania has both an office that services the appropriations committees and a separate independent office.

**Rhode Island:** Rhode Island has separate analysis agencies in the house and the senate.

**Washington:** Washington also has the Joint Legislative Audit and Review Commission, which does not appear to expressly perform fiscal analysis.

**West Virginia:** West Virginia has two agencies that perform various fiscal analysis functions, but they technically do not have an independent fiscal analysis office.



# Appendix C. Budget Stabilization Fund Citations

Data for figures 12 and 13 are primarily drawn from NASBO (2015). However, in some cases NASBO descriptions were out of date or insufficient to properly classify a deposit or withdrawal mechanism. In those cases, we consulted the Pew Charitable Trusts (2014b, 2017) and supplemented by reviewing state constitutional provisions and statutes. For states where we supplemented our classification decisions with outside statutory and constitutional sources, find citations below.

TABLE C.1

Supplemental Budget Stabilization Fund Citations

State	Citation
AL	<i>Deposit Rules</i> AL Constitution Art. XIV § 260.02. n.d. Amendment 803. <a href="http://alisondb.legislature.state.al.us/alison/codeofalabama/constitution/1901/CA-1842681.htm">http://alisondb.legislature.state.al.us/alison/codeofalabama/constitution/1901/CA-1842681.htm</a> .
AK	<i>Deposit Rules</i> Constitutional Budget Reserve Fund and Permanent Fund: AK Constitution Art. IX § 17. n.d. <a href="https://ltgov.alaska.gov/services/alaskas-constitution/">https://ltgov.alaska.gov/services/alaskas-constitution/</a> . Statutory Budget Reserve Fund: AK Stat. § 37.05.540 (2016). n.d. <a href="http://www.legis.state.ak.us/basis/statutes.asp#37.05.540">http://www.legis.state.ak.us/basis/statutes.asp#37.05.540</a> .
AZ	<i>Deposit Rules</i> AZ Rev Stat § 35-144 (2016). n.d. <a href="https://www.azleg.gov/viewdocument/?docName=http://www.azleg.gov/ars/35/00144.htm">https://www.azleg.gov/viewdocument/?docName=http://www.azleg.gov/ars/35/00144.htm</a> .
AR	<i>Deposit and Withdrawal Rules</i> AR Code § 19-6-486 (2016). n.d. <a href="http://www.lexisnexis.com/hottopics/arcod/Default.asp">http://www.lexisnexis.com/hottopics/arcod/Default.asp</a> .
CA	<i>Deposit Rules</i> Budget Stabilization Account: CA Constitution Art. XVI § 20. n.d. <a href="https://leginfo.legislature.ca.gov/faces/codes_displaySection.xhtml?lawCode=CONS&amp;sectionNum=SEC.%2020.&amp;article=XVI">https://leginfo.legislature.ca.gov/faces/codes_displaySection.xhtml?lawCode=CONS&amp;sectionNum=SEC.%2020.&amp;article=XVI</a> . Special Fund for Economic Uncertainties: CA Gov. Code § 16418. n.d. <a href="https://leginfo.legislature.ca.gov/faces/codes_displaySection.xhtml?lawCode=GOV&amp;sectionNum=16418.&amp;article=7.5.&amp;highlight=true&amp;keyword=special%20fund%20for%20economic">https://leginfo.legislature.ca.gov/faces/codes_displaySection.xhtml?lawCode=GOV&amp;sectionNum=16418.&amp;article=7.5.&amp;highlight=true&amp;keyword=special%20fund%20for%20economic</a> .
CO	<i>Deposit and Withdrawal Rules</i> CO Rev Stat § 24-75-2011. n.d. <a href="http://codes.findlaw.com/co/title-24-government-state/co-rev-st-sect-24-75-201-1.html">http://codes.findlaw.com/co/title-24-government-state/co-rev-st-sect-24-75-201-1.html</a> .
CT	<i>Deposit and Withdrawal Rules</i> CT Gen. Stat. Ch. 47 § 4-30a. n.d. <a href="https://www.cga.ct.gov/current/pub/chap_047.htm#sec_4-30a">https://www.cga.ct.gov/current/pub/chap_047.htm#sec_4-30a</a> .
DE	See Pew Charitable Trusts (2014b, 2017) and NASBO (2015).
DC	<i>Deposit Rules</i> Fiscal Stabilization Reserve Account and Cash Flow Reserve Account: DC Code § 47-392.02. n.d. <a href="https://beta.code.dccouncil.us/dc/council/code/sections/47-392.02.html">https://beta.code.dccouncil.us/dc/council/code/sections/47-392.02.html</a> .
FL	<i>Deposit Rules</i> FL Stat. Tit. XIV § 215.32. n.d. <a href="http://www.leg.state.fl.us/Statutes/index.cfm?App_mode=Display_Statute&amp;Search_String=&amp;URL=0200-0299/0215/Sections/0215.32.html">http://www.leg.state.fl.us/Statutes/index.cfm?App_mode=Display_Statute&amp;Search_String=&amp;URL=0200-0299/0215/Sections/0215.32.html</a> .

State	Citation
GA	<i>Withdrawal Rules</i> GA Code § 45-12-93 (2016). n.d. <a href="http://www.lexisnexis.com/hottopics/gacode/Default.asp">http://www.lexisnexis.com/hottopics/gacode/Default.asp</a> .
HI	<i>Deposit Rules</i> HI Rev Stat § 328L (2016). n.d. <a href="http://www.capitol.hawaii.gov/hrscurrent/Vol06_Ch0321-0344/HRS0328L/HRS_0328L-0002.htm">http://www.capitol.hawaii.gov/hrscurrent/Vol06_Ch0321-0344/HRS0328L/HRS_0328L-0002.htm</a> .
ID	<i>Deposit Rules</i> ID Stat. Tit. 67 Ch. 35 § 67-3520. n.d. <a href="https://legislature.idaho.gov/statutesrules/idstat/title67/t67ch35/sect67-3520/">https://legislature.idaho.gov/statutesrules/idstat/title67/t67ch35/sect67-3520/</a>
IL	<i>Deposit Rules</i> Budget Stabilization Act. n.d. IL Code § 30 ILCS 122. <a href="http://www.ilga.gov/legislation/ilcs/ilcs3.asp?ActID=2543&amp;ChapterID=7">http://www.ilga.gov/legislation/ilcs/ilcs3.asp?ActID=2543&amp;ChapterID=7</a> .
IN	<i>Deposit Rules</i> IN Code Tit. 4 § 4-10-18-5. n.d. <a href="http://iga.in.gov/legislative/laws/2017/ic/titles/004#4-10-18-5">http://iga.in.gov/legislative/laws/2017/ic/titles/004#4-10-18-5</a> .
IA	Fiscal Services Division of the Legislative Services Agency
KS	<i>Deposit and Withdrawal Rules</i> KS Stat. § 75-6706. n.d. <a href="https://legiscan.com/KS/text/HB2052/id/1593749/Kansas-2017-HB2052-Enrolled.pdf">https://legiscan.com/KS/text/HB2052/id/1593749/Kansas-2017-HB2052-Enrolled.pdf</a> .
KY	<i>Withdrawal Rules</i> KY Stat. § 48.705. n.d. <a href="http://www.lrc.ky.gov/statutes/statute.aspx?id=22575">http://www.lrc.ky.gov/statutes/statute.aspx?id=22575</a> .
LA	<i>Deposit Rules</i> LA Rev. Stat. 39 § 94. n.d. <a href="http://legis.la.gov/Legis/Law.aspx?d=96679">http://legis.la.gov/Legis/Law.aspx?d=96679</a> .
ME	See Pew Charitable Trusts (2014b, 2017) and NASBO (2015).
MD	<i>Deposit Rules</i> MD State Fin & Pro Code § 7-311 (2016). n.d. <a href="http://www.lexisnexis.com/hottopics/mdcode/">http://www.lexisnexis.com/hottopics/mdcode/</a> .
MA	<i>Deposit Rules</i> MA Gen. Laws Part I Tit III Ch 29 § 5C. n.d. <a href="https://malegislature.gov/Laws/GeneralLaws/PartI/TitleIII/Chapter29/Section5C">https://malegislature.gov/Laws/GeneralLaws/PartI/TitleIII/Chapter29/Section5C</a> . MA Gen. Laws Part I Tit III Ch 29 § 5G. n.d. <a href="https://malegislature.gov/Laws/GeneralLaws/PartI/TitleIII/Chapter29/Section5G">https://malegislature.gov/Laws/GeneralLaws/PartI/TitleIII/Chapter29/Section5G</a> .  <i>Withdrawal Rules</i> MA Gen. Laws Part I Tit III Ch 29 § 2H. n.d. <a href="https://malegislature.gov/Laws/GeneralLaws/PartI/TitleIII/Chapter29/Section2h">https://malegislature.gov/Laws/GeneralLaws/PartI/TitleIII/Chapter29/Section2h</a> .
MI	See Pew Charitable Trusts (2014b, 2017) and NASBO (2015).
MN	<i>Withdrawal Rules</i> MN Stat. § 16A.152. n.d. <a href="https://www.revisor.mn.gov/statutes/?id=16a.152">https://www.revisor.mn.gov/statutes/?id=16a.152</a> .
MS	<i>Withdrawal Rules</i> MS Code § 27-103-203 (2016). n.d. <a href="http://www.lexisnexis.com/hottopics/mscode/">http://www.lexisnexis.com/hottopics/mscode/</a> .
MO	<i>Deposit Rules</i> MO Constitution Art. IV § 27(a). n.d. <a href="http://www.moga.mo.gov/mostatutes/ConstArticles/Art04.html">http://www.moga.mo.gov/mostatutes/ConstArticles/Art04.html</a> .
MT	See Pew Charitable Trusts (2014b, 2017) and NASBO (2015).
NC	<i>Withdrawal Rules</i> NC Stat. § 143C-4-2. n.d. <a href="http://www.ncleg.net/gascritps/statutes/statutelookup.pl?statute=143C-4-2">http://www.ncleg.net/gascritps/statutes/statutelookup.pl?statute=143C-4-2</a> .
ND	See Pew Charitable Trusts (2014b, 2017) and NASBO (2015).
NE	<i>Deposit Rules</i> NE Rev. Stat. § 77-4602. n.d. <a href="http://nebraskalegislature.gov/laws/statutes.php?statute=77-4602">http://nebraskalegislature.gov/laws/statutes.php?statute=77-4602</a> .  <i>Withdrawal Rules</i>

State	Citation
	NE Rev. Stat. § 84-612. n.d. <a href="http://nebraskalegislature.gov/laws/statutes.php?statute=84-612">http://nebraskalegislature.gov/laws/statutes.php?statute=84-612</a> .
NH	See Pew Charitable Trusts (2014b, 2017) and NASBO (2015).
NJ	See Pew Charitable Trusts (2014b, 2017) and NASBO (2015).
NM	See Pew Charitable Trusts (2014b, 2017) and NASBO (2015).
NV	See Pew Charitable Trusts (2014b, 2017) and NASBO (2015).
NM	See Pew Charitable Trusts (2014b, 2017) and NASBO (2015).
NY	See Pew Charitable Trusts (2014b, 2017) and NASBO (2015).
OH	<i>Withdrawal Rules</i> OH Rev. Code Tit 1 Ch 131 § 131.43. n.d. <a href="http://codes.ohio.gov/orc/131.43">http://codes.ohio.gov/orc/131.43</a> .
OK	See Pew Charitable Trusts (2014b, 2017) and NASBO (2015).
OR	See Pew Charitable Trusts (2014b, 2017) and NASBO (2015).
PA	See Pew Charitable Trusts (2014b, 2017) and NASBO (2015).
RI	<i>Withdrawal Rules</i> RI Gen L § 35-3-20 (2016). n.d. <a href="http://webserver.rilin.state.ri.us/Statutes/TITLE35/35-3/35-3-20.HTM">http://webserver.rilin.state.ri.us/Statutes/TITLE35/35-3/35-3-20.HTM</a> .
SC	<i>Withdrawal Rules</i> SC Constitution Art. III § 36. n.d. <a href="http://www.scstatehouse.gov/scconstitution/SCConstitution.pdf">http://www.scstatehouse.gov/scconstitution/SCConstitution.pdf</a> .
SD	<i>Deposit and Withdrawal Rules</i> SD Codified L § 4-7-32 (through 2016). n.d. <a href="http://sdlegislature.gov/Statutes/Codified_Laws/DisplayStatute.aspx?Type=Statute&amp;Statute=4-7-32">http://sdlegislature.gov/Statutes/Codified_Laws/DisplayStatute.aspx?Type=Statute&amp;Statute=4-7-32</a> .
TN	<i>Deposit Rules</i> TN Code § 9-4-211 (2016). n.d. <a href="http://www.lexisnexis.com/hottopics/tncode/">http://www.lexisnexis.com/hottopics/tncode/</a> .
TX	<i>Deposit Rules</i> TX Constitution Art. III § 49-G. n.d. <a href="http://www.statutes.legis.state.tx.us/Docs/CN/htm/CN.3.htm">http://www.statutes.legis.state.tx.us/Docs/CN/htm/CN.3.htm</a> .
UT	<i>Withdrawal Rules</i> UT Code Tit. 63J Ch 1 Part 3 § 312. n.d. <a href="https://le.utah.gov/xcode/Title63J/Chapter1/63J-1-S312.html?v=C63J-1-S312_2015051220150512">https://le.utah.gov/xcode/Title63J/Chapter1/63J-1-S312.html?v=C63J-1-S312_2015051220150512</a> .
VT	<i>Deposit Rules</i> VT Stat. Tit 32 Ch 5 § 308. n.d. <a href="http://legislature.vermont.gov/statutes/section/32/005/00308">http://legislature.vermont.gov/statutes/section/32/005/00308</a> .
VA	<i>Deposit and Withdrawal Rules</i> VA Constitution Art. X § 8. n.d. <a href="http://law.lis.virginia.gov/constitutionexpand/article10/">http://law.lis.virginia.gov/constitutionexpand/article10/</a> .
WA	<i>Deposit Rules</i> WA Constitution Art. VII § 12. n.d. <a href="http://leg.wa.gov/LawsAndAgencyRules/pages/constitution.aspx">http://leg.wa.gov/LawsAndAgencyRules/pages/constitution.aspx</a> .
WV	<i>Withdrawal Rules</i> WV Code §11B-2-20. n.d. <a href="http://www.legis.state.wv.us/wvcode/ChapterEntire.cfm?chap=11b&amp;art=2&amp;section=20">http://www.legis.state.wv.us/wvcode/ChapterEntire.cfm?chap=11b&amp;art=2&amp;section=20</a> .
WI	<i>Withdrawal Rules</i> WI Stat. § 25.60. n.d. <a href="https://docs.legis.wisconsin.gov/statutes/statutes/25/60">https://docs.legis.wisconsin.gov/statutes/statutes/25/60</a> .
WY	<i>Deposit and Withdrawal Rules</i> WY Stat § 9-4-219 (2016). n.d. <a href="http://legisweb.state.wy.us/NXT/gateway.dll?f=templates&amp;fn=default.htm">http://legisweb.state.wy.us/NXT/gateway.dll?f=templates&amp;fn=default.htm</a> .

Source: Authors' compilation.

# Notes

1. NASBO (2016a) data on state Medicaid spending exclude spending on the Children's Health Insurance Program for all states except Colorado.
2. Because states have flexibility in defining what goes into their general funds, states' own-source funding includes more than what is in their general funds. For example, some states may include mental health and other social services in their general funds, while other states have created dedicated funds for those purposes. Many nongeneral funds are from states' own-source revenues, including tax revenue and lottery revenue, for example. We define state-funded expenditures as comprising the state general fund, other state funds, and bond funds.
3. State transfers to local governments include federal funds that pass through states to local governments. State and local general spending includes spending on general government services and activities and excludes spending on government-run liquor stores, utilities, and insurance trusts. Data are from the US Census Bureau, Annual Survey of State and Local Government Finance, 2015, accessed via the Urban Institute, State and Local Finance Data Query System, October 20, 2017, <http://sfdqs.taxpolicycenter.org/>.
4. Joseph O'Sullivan and Jim Brunner, "School Funding Back on Table as Court Fines State \$100,000 a Day," *Seattle Times*, August 14, 2015, <http://www.seattletimes.com/seattle-news/education/supreme-court-orders-100000-per-day-fines-in-mccleary-case>; Khia Collier, "Texas Supreme Court Rules School Funding System Constitutional," *Texas Tribune*, May 13, 2016, <https://www.texastribune.org/2016/05/13/texas-supreme-court-issues-school-finance-ruling/>.
5. See also Bailey and Erford (2015) and Moody's Investors Services (2016).
6. See also Bohn and Inman (1996) and GAO (1985) on similar findings from earlier recessionary periods.
7. Ryu and coauthors (2008), a peer-reviewed mixed-methods study published in *Public Budgeting and Finance*, used data from a survey of state agency heads as well as a two-stage least-squares regression model to examine actors' influence on budget outcomes. Compared with other quantitative studies evaluated for this report, Ryu and coauthors (2008) is not widely cited, garnering 14 cross-citations in Google Scholar as of January 2017. This is compared with a median of 46 cross-citations for quantitative papers reviewed in this report.
8. For more information on courts and K-12 public finance, see Kenyon (2007) and Corcoran and Evans (2015).
9. Hale (2013), a qualitative peer-reviewed study published in *Administration and Society*, contributes to the literature on gubernatorial leadership. Hale used a case study approach to learn about the success of Delaware governor Pete du Point, who is praised for bringing the state out of fiscal distress during his tenure in the 1970s. The study is not widely cited compared with other qualitative, peer-reviewed articles we evaluated for this report, garnering only four cross-citations in Google Scholar as of January 2017 (compared with a median of 24 for other peer-reviewed qualitative studies evaluated for our report).
10. Line-item veto authority varies. In some states, the governor can veto an entry or amount while others restrict the scope of the veto to, for example, only whole sentences.
11. Ryu (2011), peer reviewed and published in the journal of *Public Budgeting and Finance*, uses regression analysis to look at influences on state spending.
12. See the New Mexico Legislative Finance Committee's brochure for 2015-16, "Legislative Finance Committee," accessed November 9, 2017, <https://www.nmlegis.gov/Entity/LFC/Documents/brochure.pdf>.
13. For specific citations, see the literature review in Ryu (2014).

14. For a recent count of states dealing with K–12 lawsuits, see Underwood’s (2015) article “State Education Funding Is under the Legal Spotlight,” published in *Phil Delta Kappan*, a professional magazine on K–12 education policy.
15. See, for example, Darden’s 2014 article in *Phil Delta Kappan*, a professional magazine on K–12 education policy, “The Burden of Equality in Public Education,” and Underwood (2015) in the same magazine.
16. LaFortune, Rothstein, and Schanzenbach (2016) used an event-study research design that assumed the exact timing of reform events was as good as random. It employed a difference-in-differences approach between “treated” and “untreated” cases. The authors included both court-mandated and statutory reforms.
17. For more information on the progressivity of state school funding policies, see Matthew Chingos and Kristin Blagg, “School Funding: Do Poor Kids Get Their Fair Share,” Urban Institute, May 2017, <http://apps.urban.org/features/school-funding-do-poor-kids-get-fair-share/>.
18. “CBO’s Activities under the Unfunded Mandates Reform Act,” Congressional Budget Office, 2017, <https://www.cbo.gov/publication/51335>.
19. “What Types of Federal Grants Are Made to State and Local Governments and How Do They Work?” Urban-Brookings Tax Policy Center, 2016, <http://www.taxpolicycenter.org/briefing-book/what-types-federal-grants-are-made-state-and-local-governments-and-how-do-they-work>.
20. As Gordon (2012a) noted in her article in the *Oxford Handbook of State and Local Government Finance*, early studies on state fiscal institutions, such as Abrams and Dougan (1986), did not consider endogeneity and often employed single-equation cross-sectional analyses rather than longitudinal analyses.
21. Conant (2010a) conducted a case study on Virginia as part of a special *Public Budgeting and Finance* issue on states’ response to the Great Recession, but the article was not widely cited among the peer-reviewed qualitative literature we evaluated for this report. It garnered only four cross-citations in Google Scholar. Wallin and Snow (2010) also contributed an article on Massachusetts for the same issue of *Public Budgeting and Finance*, garnering seven Google Scholar cross-citations. Lauth’s (2010) evaluation of Georgia in the same issue had nine cross-citations.
22. For more detail on pension spiking, see Greenhut (2009) and Marc Lifsher and Melody Petersen, “Pension Spiking Could Cost CalPERS Nearly \$800 Million,” *Los Angeles Times*, September 9, 2014, <http://www.latimes.com/business/la-fi-pension-spiking-report-20140910-story.html>.
23. Lawrence, Sherk, and Dayaratna (2016) utilize synthetic control, regression analysis, and Bayesian analysis.
24. For more information on synthetic control analysis, see McClelland and Gault (2017).
25. Cummings and Kelly’s (2012) article in the *Illinois Public Employee Relations Report* provided an overview of collective bargaining in Illinois. This journal is not peer reviewed, and it is published by the Chicago-Kent College of Law, Institute for Law and the Workplace, and the University of Illinois School of Labor and Employment Relations.
26. Camila Domonoske, “Illinois Lawmakers Override Governor, Pass Budget for 1st Time in 2 Years,” *All Things Considered*, National Public Radio, July 6, 2017, <http://www.npr.org/sections/thetwo-way/2017/07/06/535811049/illinois-lawmakers-override-governor-pass-budget-for-first-time-in-2-years>.
27. Only two states changed their line-item veto policy during the study period, so Besley and Case (2003) did not make claims about how the line-item veto influenced outcomes as a stand-alone feature. The interaction term between divided government and line-item veto policy, however, varied more over time and produced meaningful results.
28. James S. Fishkin, “How to Fix California’s Democracy Crisis,” *New York Times*, October 10, 2011, <http://www.nytimes.com/2011/10/10/opinion/how-to-fix-californias-democracy-crisis.html>.

29. Bails and Tieslau (2000) used a state and local panel dataset from 1969 to 1994.
30. Qiao (2015) was not widely cited compared with other peer-reviewed quantitative studies, and in fact had zero cross-citations in Google Scholar. That lack of citations may be due to its recent publication date.
31. For example, see the literature reviews in Gordon (2012a, 2012b), Knight and Levinson (2000), Mitchell and Tuszynski (2012), Rubin (2005), and Poterba (1994, 1995) for evidence on the fiscal effects of budgeting institutions.
32. Please see McNichol, Palacios, and Johnson (2014) as well as Elizabeth McNichol, "Helping States Better Understand Budget Choices," *Off the Charts* (blog), Center on Budget and Policy Priorities, October 21, 2011, <https://www.cbpp.org/blog/helping-states-better-understand-budget-choices>; and "Budget Process Improvements Can Help States Make Better Decisions," *Off the Charts* (blog), Center on Budget and Policy Priorities, April 26, 2016, <https://www.cbpp.org/blog/budget-process-improvements-can-help-states-make-better-decisions>.
33. Colorado, North Dakota, and West Virginia were missing data on their budgeting cycles in the 1975 report. From 1981 to 2015, Colorado and West Virginia were recorded as having annual budget systems, while North Dakota was recorded as having a biennial system.
34. Reddick (2007) also found higher total spending in states that budgeted biennially.
35. The Congressional Budget Office produces a current services baseline to inform the federal budget process. Shirck and Shen (2005), in their non-peer-reviewed literature review, discuss current services baselines in the federal and the broad contexts.
36. Shirck and Shen (2005) presented their paper, "The Role of Estimation in Budget Procedures: Baselines," at the Harvard Law School Federal Budget Policy Seminar. It is a qualitative literature review and is not peer reviewed.
37. McNichol and Grundman (2011) provide a qualitative review of current state practices.
38. Klase and Dougherty (2008) conducted a pooled cross-sectional time-series regression analysis to determine the effect of PBB on constant, total per capita expenditures.
39. See Crain and O'Roark (2004) for additional citations on transparency and spending.
40. Crain and O'Roark (2004) examined the effect of PBB on total state spending and on spending for nine budget categories per capita and by personal income. They used pooled cross-sectional data and included more control variables than Klase and Dougherty (2008). They also included an endogeneity test with an instrumental variable approach.
41. Reddick (2007), while peer-reviewed and published in the *Journal of Public Budgeting, Accounting and Financial Management*, is not widely cited compared with many quantitative peer-reviewed studies we evaluated for this report. It garners only four cross-citations in Google Scholar.
42. Many early studies on state budget institutions were not as methodologically rigorous as later studies. For example, Gordon (2012a) explained that Crain and Miller (1990), while cross-cited in many early literature reviews (Poterba 1995, 1996b), did not control for endogeneity. Gordon (2012a) also explained that the ACIR study suffered from challenges with endogeneity and featured only cross-sectional data. Knight and Levinson (2000) used the ACIR's BBR index and commented that, while the study only included cross-sectional data, its results have been borne out by later studies. Poterba and Rueben (2001) used the ACIR index to classify BBRs.
43. Bayoumi and Eichengreen (1995) was an early study in this field, and did not distinguish between income and employment effects as effectively as Bohn and Inman's study from the same period (1996). See Gordon (2012a) in the *Oxford Handbook of State and Local Government Finance* for a more in-depth critique of early budget process studies.

44. Recently, California and Massachusetts dedicated a portion of capital gains tax revenue to BSFs, for example.
45. New Mexico, for example, has a “cascading” fund balance. Excess funds go to the tax stabilization reserve.
46. Colorado’s fund, for example, can only be used to cover shortfalls caused by natural disasters.
47. See the case study overview presented by Conant (2010b) in the introduction to the special issue of *Public Budgeting and Finance*, as well as specific case studies presented by Lauth (2010) and Wallin and Snow (2010) in that same issue.
48. Colorado, for example, requires a public vote to increase general obligation debt.
49. Including Alaska, the only state that reported a popular vote to raise debt in 1977 (NASBO 1977).
50. Mary Jo Pitzl, “Worries Increase along with Arizona’s Debt,” *Arizona Republic*, June 9, 2010, <http://archive.azcentral.com/arizonarepublic/news/articles/20100609arizona-debt-increases.html>.
51. Lauth and Reese (2006), a peer-reviewed case study on Georgia published in *Public Budgeting and Finance*, is not as widely cited as other qualitative, peer-reviewed studies that we evaluated for this report. It has only five cross-citations in Google Scholar.
52. Lee (2015) performed a regression analysis using data on the states from 1970 to 2007.
53. “What Are Tax and Expenditure Limits?” Urban-Brookings Tax Policy Center, 2016, <http://www.taxpolicycenter.org/briefing-book/what-are-tax-and-expenditure-limits>.
54. Between 1987 and 2015, Connecticut, Louisiana, Maine, Mississippi, New Jersey, Ohio, and Washington adopted TELs. During that same period, Alabama, Arizona, Delaware, Georgia, Kansas, Kentucky, Massachusetts, Montana, New Hampshire, New Mexico, South Dakota, Wisconsin, and West Virginia got rid of their TELs. Data on Alaska’s TEL were missing in 1987.
55. “What Are Tax and Expenditure Limits?” Urban-Brookings Tax Policy Center, 2016, <http://www.taxpolicycenter.org/briefing-book/what-are-tax-and-expenditure-limits>.
56. In her literature on state fiscal institutions, Gordon (2012a) discussed Bails (1990) as an example of early TEL literature. While widely cited, more recent studies (e.g., McGuire and Rueben 2006; Poterba and Rueben 2001) that employ more methodologically robust methods have reached different conclusions. Gordon (2012a) also cited Kenyon and Benker (1984) as an early study on TELs and the size of government, but did not comment on its quality. Shadbegian (1996) is cited in Gordon (2012a) and Poterba (1996a) as an early study that found TELs are not binding in states with income growth.
57. For a qualitative case study review of TABOR in Colorado, see James and Wallis (2004).
58. Bae, Moon, and Jung (2012) performed a regression analysis using time-series cross-sectional five-year interval data from 1985 to 2005. The study, peer-reviewed and published in *Public Administration Review*, is not as widely cited as other quantitative, peer-reviewed articles we evaluated for this report. It has only nine Google Scholar cross-citations.
59. Although NASBO used the term “annually required contribution” in its 2015 budget process report, GASB statements no. 67 and no. 68 replaced it with “actuarially determined employer contribution” in 2014 (Aubry, Crawford, and Munnell 2017).
60. “The State of Retirement: Grading America’s Public Pension Plans,” Urban Institute, 2014, <http://apps.urban.org/features/SLEPP/index.html>.
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62. Thom and Randazzo (2015), used a regression analysis to evaluate state contributions to pensions from 2003 to 2012.

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