



THE NELSON A.  
ROCKEFELLER  
INSTITUTE  
OF GOVERNMENT



The Nelson A. Rockefeller Institute of Government, the public policy research arm of the State University of New York, was established in 1982 to bring the resources of the 64-campus SUNY system to bear on public policy issues. The Institute is active nationally in research and special projects on the role of state governments in American federalism and the management and finances of both state and local governments in major areas of domestic public affairs.

THE BLINKEN REPORT

# The Economy Recovers While State Finances Lag

June 2015

Donald J. Boyd and Lucy Dadayan

# Contents

Preface . . . . .	iii
This Economic Recovery Has Been Slower Than Past Recoveries . . . . .	1
The Tax Revenue Recovery Is Slower Than Previous Tax Recoveries . . . . .	3
Income Tax Revenue Has Been Held Back By a Fall-Off in Capital Gains . . . . .	4
Little Support for Tax Increases . . . . .	5
Spending Pressures Continue, But Their Character Is Changing . . . . .	7
A Sea Change in State and Local Government Spending . . . . .	7
Sharp Declines in Construction Spending, Particularly for School Buildings . . . . .	9
Declines in Most Spending Other Than Medicaid . . . . .	10
Cuts in State and Local Government Employment . . . . .	13
Special Circumstances in Many States . . . . .	14
Challenges in States Heavily Reliant on Oil, Natural Gas, and Coal Production . . . . .	15
Challenges Related to Income Taxes . . . . .	17
Looking Ahead . . . . .	18
The Economy and Tax Revenue . . . . .	18
Personal Income Taxes . . . . .	18
General Sales Taxes . . . . .	20
Selective Sales Taxes and Licenses . . . . .	20
Conclusion . . . . .	20
Endnotes . . . . .	21

## The Economy Recovers While State Finances Lag

June 2015

## Preface

It is too soon to know whether state government finances in the U.S. have entered a “new normal” since the 2007 recession — a persistent period of slow growth and new, distinctive patterns of public revenues and expenditures. Yet this *Blinken Report* points to that possibility. None of the recessions in the past half-century has shown such a slow recovery in overall state tax revenues. At this point in four previous recoveries, state taxes, adjusted for inflation, were at least 10 percentage points higher relative to the prior peak than they are in this recovery. Corporate income taxes remain 15 percent below prerecession levels. Meanwhile, states have become more dependent on an increasingly volatile and unpredictable individual income tax.

State budgets have shifted decisively away from construction, infrastructure repairs and maintenance, K-12 education, social services, and just about every public function other than health care and benefit payments to retired public employees. One other exception, higher education, has seen spending growth since the recession only by charging students and their families higher tuition and fees. And unlike all recent recessions, states have sharply cut their workforces, while their budget actions (or inactions) have probably contributed to unprecedented employment declines in schools and other local government functions.

For better or worse, these are changes that affect Americans’ daily lives. State and local governments employ the vast majority of government workers and deliver most domestic public services. The purpose of this report is not to advocate any particular policy response, but to call attention to these vast and rapid changes — and raise them as potential policy issues for serious consideration by citizens and public officials.

This release constitutes the first of this year’s *Blinken Reports* — the annual overview of state and local finances. A second report will be released later this year and will focus on one important and timely fiscal issue, gambling as a source of revenue for state governments.

Over three decades ago, Donald Blinken served as chair of the SUNY Board of Trustees when Chancellor Clifton Wharton developed and won approval for a policy institute attached to the largest comprehensive university system in the U.S. Ambassador Blinken has since continued to be one of the Institute’s most thoughtful advisers. We at the Rockefeller Institute of Government of SUNY thank Donald and Vera Blinken for their enduring support for the Institute and this annual series of reports on key fiscal issues.



Thomas L. Gais  
Director,  
Rockefeller Institute of Government  
State University of New York



THE NELSON A.  
ROCKEFELLER  
INSTITUTE  
OF GOVERNMENT



*The Public Policy Research  
Arm of the State University  
of New York*

411 State Street  
Albany, NY 12203-1003  
(518) 443-5522

## THE BLINKEN REPORT

# The Economy Recovers While State Finances Lag

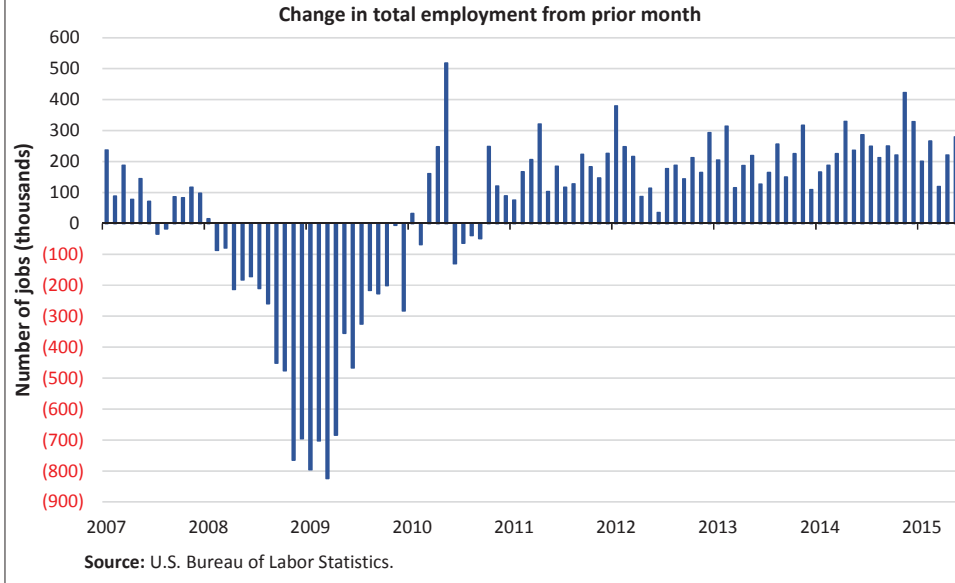
State governments play a crucial role in the nation's economy. Together with the localities they oversee, they are responsible for three-quarters of the nation's transportation and water infrastructure, they finance 90 percent of the nation's public elementary and secondary schools, they provide a majority of the nation's higher education in degree-granting institutions, and they implement much of the nation's social safety net. When states' finances are strong, they can make investments that increase the nation's productivity. When states' finances falter, they cannot. Infrastructure deteriorates, social services wane, local government services — from public safety to schools — struggle to meet public needs, and public universities pass more of their costs to students through increases in tuition.

Before the 2007 recession, state finances recovered their losses and grew fast enough to meet expanding needs by this time after the start of prior economic downturns. But this recession has been different. Although the national economic recovery has been underway for six years, some states have announced budget shortfalls for state fiscal year 2016 and several are even contemplating tax increases to balance their budgets. Why are many states' finances so weak so many years after the start of the recovery? And what does this weakness mean for state policy choices and long-term public investments?

### **This Economic Recovery Has Been Slower Than Past Recoveries**

One important reason for the slow recovery in state finances is the slow economic recovery. Employment is one of the most important economic indicators for state budget officials. It is a broad

Figure 1. Employment Has Been Growing Continuously Since 2010



measure of the overall economy, and it plays a major role in determining wages subject to state income taxes and supporting consumer purchases subject to state sales taxes. Employment has been recovering continuously since late 2010 with occasional slowing and acceleration. (See Figure 1.)

However, while the extended employment recovery has been welcome news for states, it is slow by historical standards. Seven and half years after the start of the recession,

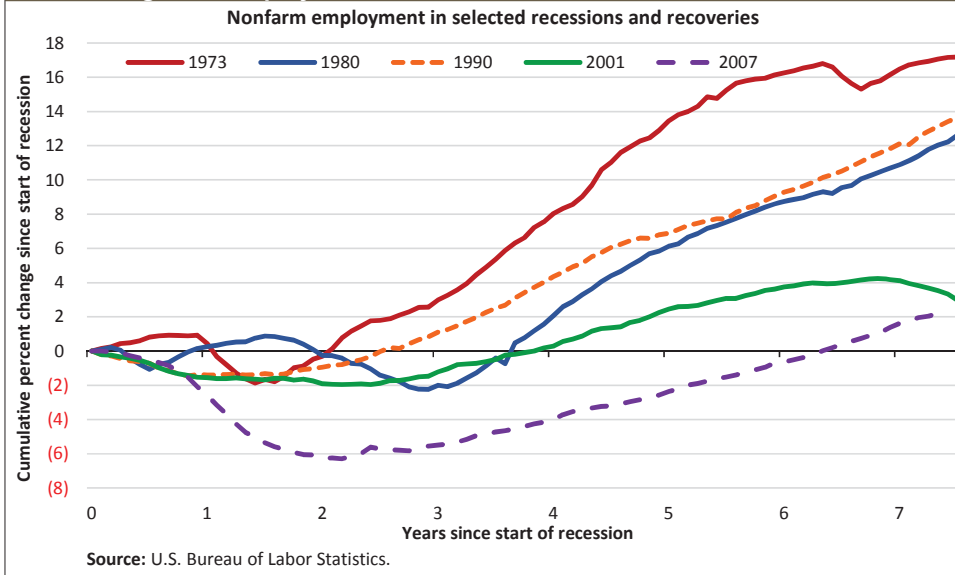
employment is only 2.4 percent above its prior peak, compared to 3.3 percent at this point after the 2001 recession, and more than 12 percent for each of the three prior recessions.<sup>1</sup> (See Figure 2.)

Consumer expenditures also are important to state revenues through their effects on sales taxes and other consumption taxes. But the consumption recovery has been even slower relative to past recessions than the employment recovery. Seven years after the recession's start, inflation-adjusted, consumption is only 10.8 percent above its prior peak, compared to more than 20 percent for each of four previous recessions (see Figure 3).

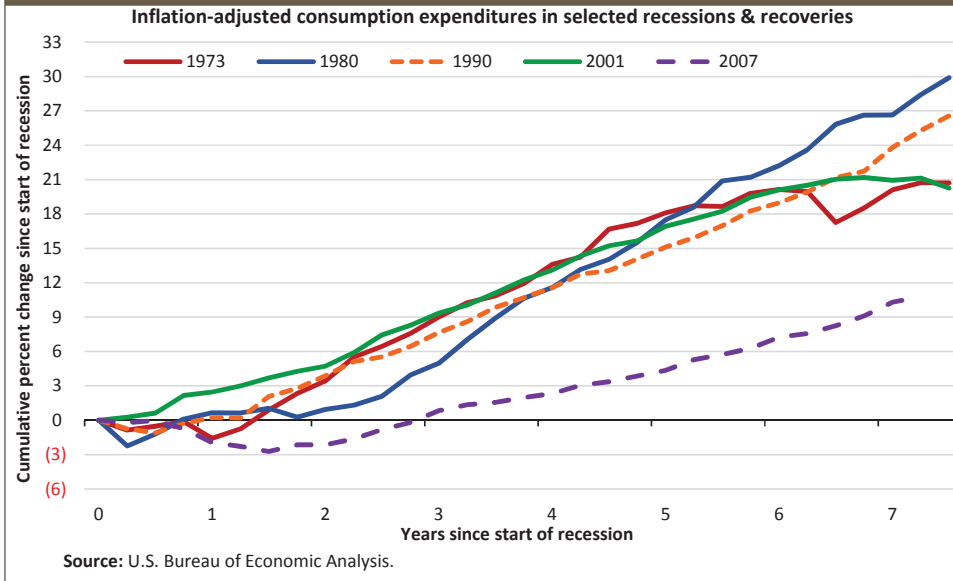
These national trends mask growth in some states and decline in others. Employment ranges from 30 percent above the recession's start in North Dakota, which benefited from an oil boom since gone bust, to 3.6 and 3.4 percent below in Alabama and Nevada, which were devastated by the recession but are now recovering,

though they have not attained the prior peak. Employment in thirteen states remains below the prerecession peak of over seven years ago. (See Figure 4.) Even in states where employment has been relatively strong, tax revenue has been weak, as we discuss below.

Figure 2. Employment Is Below Where It Was in Past Recoveries



**Figure 3. Inflation-Adjusted Consumer Expenditures Are Far Below Expenditure Levels in Prior Recoveries**

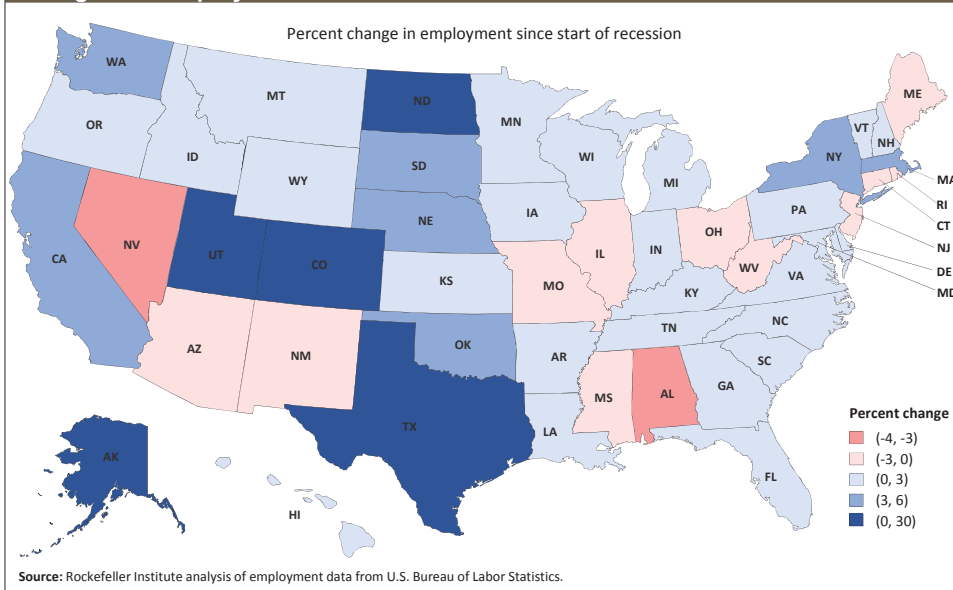


### The Tax Revenue Recovery Is Slower Than Previous Tax Recoveries

The weak economic recovery has contributed to the weak growth in state tax revenues. Seven years after the start of the recession, inflation-adjusted state government tax revenue is only 5 percent above its prerecession level. In four preceding recoveries, inflation-adjusted state tax revenue by this point had grown several times as much, ranging from 15 to 25 percent above prerecession revenue.<sup>2</sup> (See Figure 5.)

The sales tax has been the weakest of the major taxes, reflecting the slow growth in consumption. The personal income tax, while stronger than the sales tax, has been held back by a huge decline in capital gains, which have recovered only partially. The corporate income tax, which plays a minor role in most states' revenue structures, is 15 percent below its 2007 level. Other taxes have grown substantially, reflecting legislated

**Figure 4. Employment in Thirteen States Is Below the Start of the Recession**

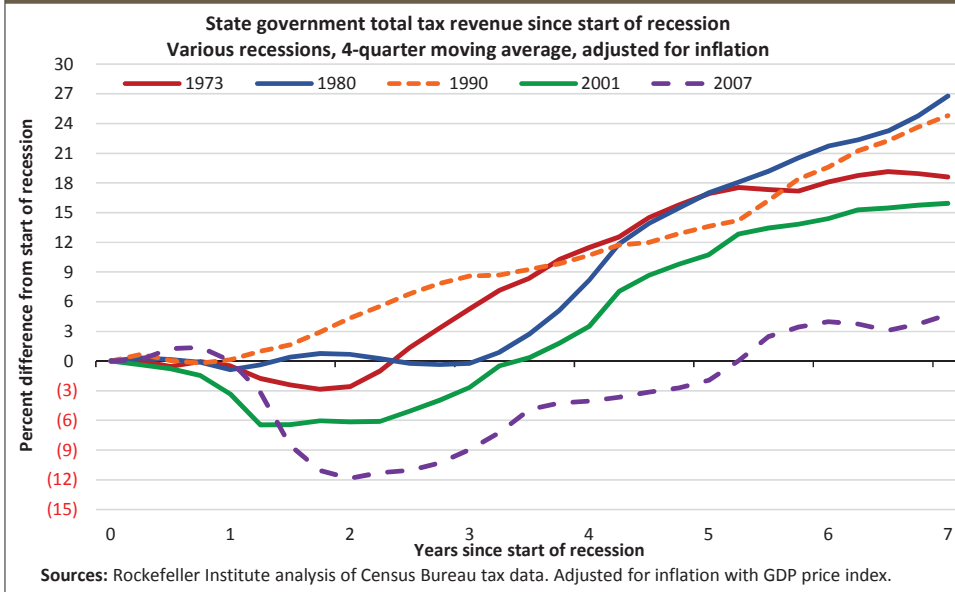


increases in cigarette taxes, motor fuel taxes, and other taxes. Figure 6 shows the path of revenue by tax type since the start of the recession.

State fortunes have varied, reflecting differences in economies, tax structures, and tax policy choices. Inflation-adjusted tax revenue is up by 2.1 percent in the median state in the seven years since the start of the recession, but it ranges from a near-tripling in North Dakota to a decline of 57 percent in Alaska. The oil boom drove North Dakota's revenue growths, while declines in Alaskan oil production and cuts in petroleum taxes pushed Alaska tax revenue down.



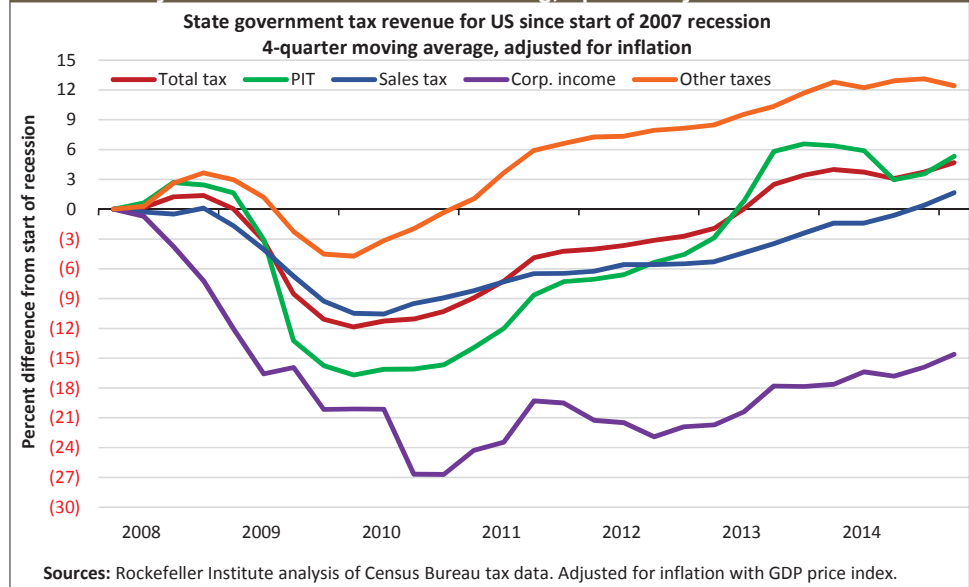
**Figure 5. Seven Years After the Recession Started, Tax Revenue Is Only 5 Percent Above the Prior Peak and Is Far Lower Than in Past Recoveries**



Other states' trends are harder to explain. Inflation-adjusted tax revenue remains lower than at the start of the recession in twenty-one states (see Figure 7), even though employment is lower in only thirteen states. Southeastern states have been particularly hard hit, in part because of the housing bust. Florida, Georgia, Louisiana, North Carolina, South Carolina, and Virginia all have higher employment than at the start of the recession, but they haven't yet reached prerecession tax revenue

peaks. It is not easy for elected officials to bring budgets in line with revenue when it is lower than it was seven years ago.

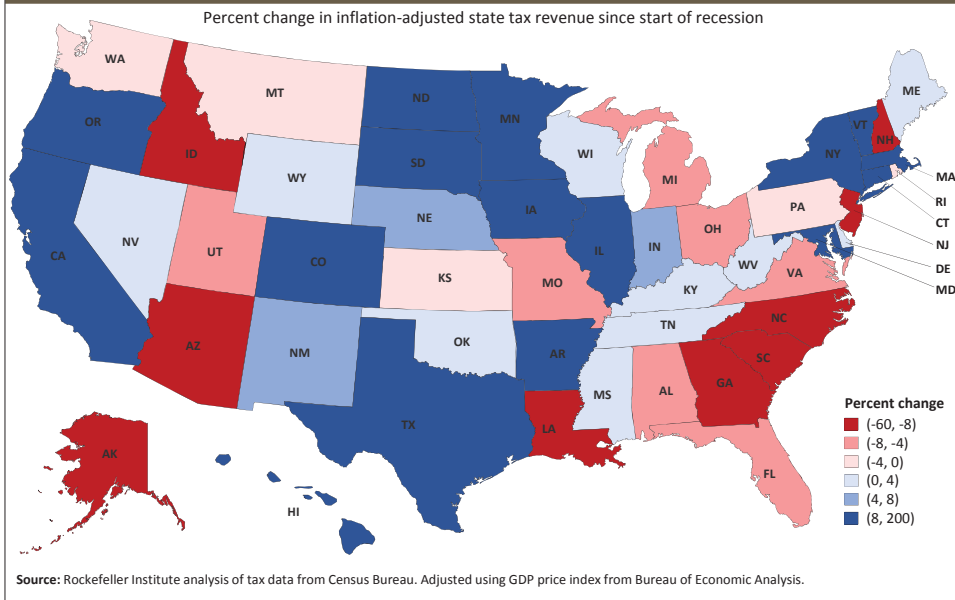
**Figure 6. The Sales Tax Is Barely Above Pre-recession Levels, the Income Tax Is Up Only 5 Percent, and the Corporate Income Tax Is 15 Percent Below Its Prior Peak. Only "Other" Taxes Have Been Strong, Spurred By Tax Increases.**



### Income Tax Revenue Has Been Held Back By a Fall-Off in Capital Gains

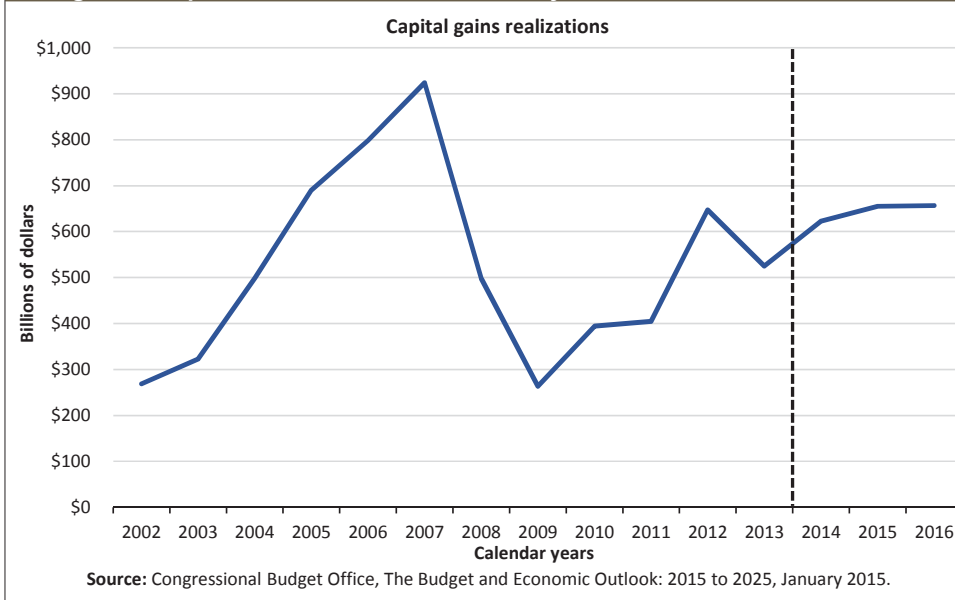
State income taxes have been acutely affected by capital gains, which do not appear in traditional measures of the economy. Between 2007 and 2009, capital gains fell by 72 percent. They have since more than doubled, gyrating substantially in 2012 and 2013

**Figure 7. Inflation-Adjusted Tax Revenue in Twenty-One States Is Below Prerecession Levels**



as taxpayers moved money between tax years in response to expected and actual changes in federal tax rates.<sup>3</sup> Despite increases in 2010 through 2014 (estimated), capital gains remain about a third below their 2007 peak, contributing to the slow growth of the personal income tax (see Figure 8). Capital gains volatility has been a source of frustration to many state revenue forecasters, and a cause of budget forecasting errors.<sup>4</sup>

**Figure 8. Capital Gains Realizations Are Only Two-Thirds of Their 2007 Level**



Capital gains are concentrated among a small number of high-income taxpayers, whose decisions about when to take gains can affect state finances significantly. In 2012, about three-quarters of net capital gains were claimed by the one-quarter of one percent of tax filers who had adjusted gross income of \$1 million or more.<sup>5</sup> This means that nearly all capital gains are taxed at the highest rates (unless a state has a tax-rate preference for gains) and thus exert a large, magnified impact on state tax revenue.

Because capital gains are far more volatile than most other sources of income,

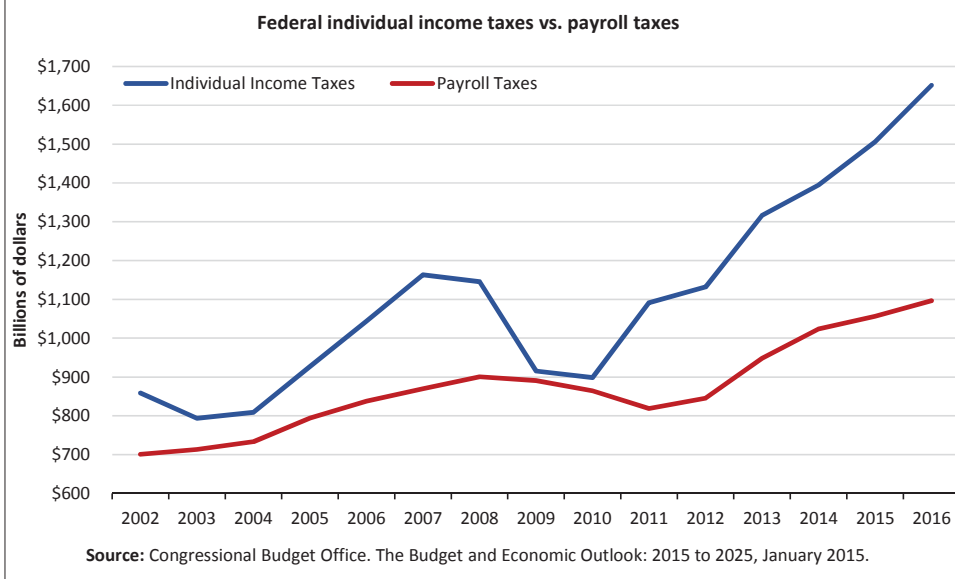
they make income taxes more volatile than they would be if taxes relied only on wages. Figure 9 illustrates this point using federal data on payroll (wage) taxes and income taxes — the payroll taxes are far less volatile than overall income taxes, and have grown more slowly than overall income taxes.

### Little Support for Tax Increases

Although the Great Recession drove state tax revenue down more than any other recession since the Great Depression, it did not lead to the largest tax increases. Table 1 shows state



Figure 9. Payroll Taxes Are Less Volatile Than Income Taxes



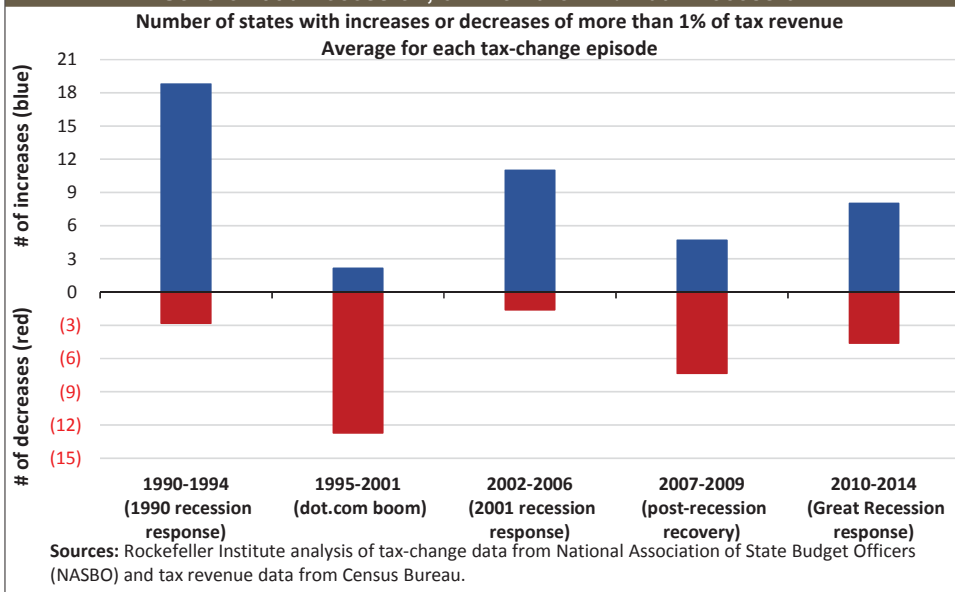
government legislated tax changes for boom and bust periods of the last twenty-five years, adjusted for inflation.<sup>6</sup> The five years in which states adopted their greatest legislative responses to each recession are grouped together. States raised taxes by \$33 billion in response to the Great Recession, 38 percent less than the \$54 billion raised in response to the 1990 recession. About 63 percent of all legislated tax increases during the Great Recession response period were in the personal income tax. This is much higher than in previous recessions. Only 28 and 13 percent of legislated tax increases in response to the 1990 and 2001 recessions were in the personal income tax, respectively. The income tax increases contributed to the growth and recovery of the personal income shown in Figure 6 above. Large increases in income taxes were concentrated in a few states and do not indicate a broader trend toward reliance on the income tax.

The recent increases were greater than the \$24 billion raised after the much milder and briefer 2001 recession, but that doesn't tell the full story. Few states raised taxes significantly in the recent recession,

with the top three (California, Illinois, and New York) accounting for 81 percent of the total, compared to 50 percent for the top three responses to the 1991 recession. The next forty-seven states raised taxes by \$12.1 billion in the 2001 response, versus only \$6.4 billion in the 2007 response. Large tax increases were thus more common after the mild 2001 recession than after the deep 2007 recession.

Figure 10 shows the declining reliance on large tax increases, defined as more than 1 percent of tax revenue. It groups tax changes by the same periods as in

Figure 10. Large Tax Increases Were Far Less Common in Response to the Great Recession Than They Were in Response to the Severe 1990 Recession, or Even the Mild 2001 Recession



**Table 1. States Raised Taxes in Response to the 1991 Recession Than They Did in Response to the 2001 and 2007 Recessions**

Legislated changes in state tax revenue, boom and bust episodes

Millions of 2014 dollars

State fiscal years	Personal income tax	General sales tax	Corporate income tax	Other taxes					Total taxes
				Total	Tobacco	Motor fuel	Alcohol	All other taxes	
1990-1994 (1990 recession response)	\$15,222	\$14,339	\$5,889	\$18,713	\$2,918	\$5,435	\$955	\$9,405	\$54,163
1995-2001 (dot.com boom)	(25,428)	(2,620)	(5,637)	(11,927)	1,597	768	(1)	(14,291)	(45,613)
2002-2006 (2001 recession response)	3,137	7,127	2,922	11,072	7,216	299	143	3,413	24,258
2007-2009 (post-recession recovery)	(4,060)	1,312	1,869	(1,296)	1,668	(30)	14	(2,947)	(2,176)
2010-2014 (Great Recession response)	20,896	5,847	375	6,303	2,326	2,704	123	1,150	33,421

Source: Rockefeller Institute analysis of data from the National Association of State Budget Officers (NASBO), Fiscal Survey of the States (various years) and from state government websites.

Table 1. The blue bars (above the horizontal line) indicate the number of states with large tax increases, while the red bars (below the line) indicate the number of states with large decreases. There were fewer large increases in response to the 2007 recession than in response to either of the two previous recessions.

States have reduced reliance on tax increases to close budget gaps. Public opinion polls and recent state government behavior do suggest that Americans are more likely to support taxes for road maintenance. According to a national poll by the Mineta Transportation Institute, 69 percent of respondents would support a ten cent gas tax increase to improve road maintenance.<sup>7</sup> More than a dozen states considered gas tax increases in 2015, and in Nebraska the legislature even overrode a gubernatorial veto of a gas tax increase.<sup>8</sup>

### Spending Pressures Continue, But Their Character Is Changing

States have cut spending far more deeply in response to the Great Recession than in response to any other recent recession: cuts in construction spending, employment, and almost every spending area outside of Medicaid. States are facing pressure to restore many of these cuts.

### A Sea Change in State and Local Government Spending

There are little timely data on state and local government spending for individual states. However, the Bureau of Economic Analysis (BEA) constructs estimates for the nation as a whole that can be divided into three broad categories:

- Social benefit expenditures, approximately 80 percent of which is Medicaid;
- Consumption spending, which includes traditional service spending of governments, such as spending for teachers, police, firefighters, and administrators; and

- Investment, which includes construction spending on infrastructure, buildings, and certain other kinds of investment. Investment data include gross investment expenditures (in essence, the amount actually spent) and net investment *after allowing for “capital consumption” to reflect the fact that assets generally are used up over time and deteriorate in quality and value.*

BEA does not divide state and local government expenditure data on a regular basis into state government spending and local government spending.

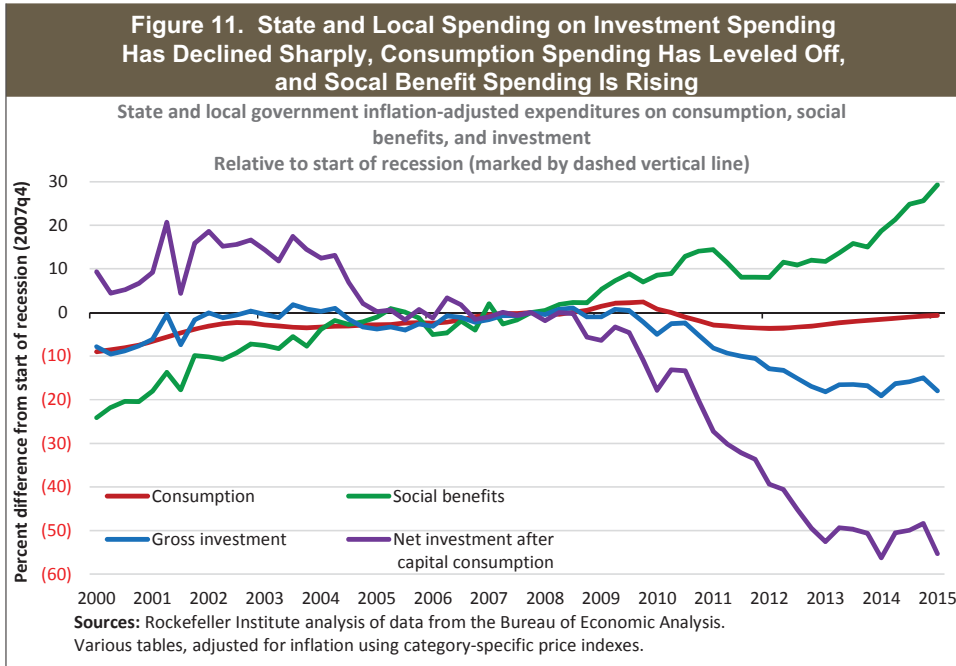


Figure 11 shows inflation-adjusted social benefit, consumption, and investment spending from 2000 through 2014, with each point showing the percentage difference in spending relative to the fourth quarter of 2007, when the recession began.<sup>9</sup> The plot shows a sea change in state and local government spending. Real gross investment fell by 18 percent since the start of the recession, and net investment (after allowing for capital consumption) plummeted more than 55 percent. Social benefit spending rose

by about 29 percent, while “consumption” spending on many of the bread-and-butter services of government declined slightly.

Much of the drop in investment spending appears, according to other data sources, to reflect a decline in school building construction (discussed in the next section) rather than traditionally defined infrastructure investment. Spending on transportation and water infrastructure, which accounts for a large majority of infrastructure spending, has been relatively stable at about 2.5 percent of gross domestic product since the early 1980s.<sup>10</sup> Spending relative to GDP may be thought of as a measure of effort — the share of the nation’s resources spent on infrastructure. While governments have been maintaining their overall effort, they were not getting as much for it as previously: according to the Congressional Budget Office, real transportation and water infrastructure capital spending fell 23 percent from 2003 to 2014 when adjusted for inflation using the prices of goods and services needed to build and maintain infrastructure.

### Sharp Declines in Construction Spending, Particularly for School Buildings

To obtain more detail about where states are reducing investments, we rely on data from the U.S. Census Bureau, which provides monthly estimates of state and local government construction spending by detailed category. Inflation-adjusted state and local government spending fell by \$50 billion at annual rates (16.4%) between the fourth quarters of 2007 and 2014, with declines in nearly every category. Bridges and mass transit were the only categories with meaningful spending increases. (See Table 2.)

Declines in spending on primary and secondary education buildings accounted for more than half of the total decline. Changing demographics may account for some of this decline. Growth in the number of primary and secondary education pupils slowed from 0.8 percent annually in 1996-2006 to only 0.1 percent annually in 2006-13, with five consecutive years of decline in high

**Table 2. State and Local Government Construction Spending Has Declined Since the Recession's Start**

State and local government construction spending, adjusted for inflation  
Billions of 2014 dollars at annual rates, seasonally adjusted

	Fourth quarter of:		\$ Change	% Change
	2007	2014		
<b>Total state and local construction</b>	<b>\$306.8</b>	<b>\$256.5</b>	<b>(\$50.3)</b>	<b>(16.4)</b>
<i>Transportation-related construction</i>	110.5	114.3	3.7	3.4
Pavement and other highway and street construction, excluding bridges	56.9	53.7	(3.2)	(5.6)
Bridges	26.9	30.0	3.1	11.4
Mass transit	4.3	7.6	3.3	77.5
Other transportation (e.g., airport runways, bus, rail, & air passenger terminals)	22.5	23.1	0.6	2.5
<i>Education</i>	90.6	60.1	(30.5)	(33.7)
Primary and secondary education	63.2	34.4	(28.8)	(45.5)
Higher education and other education	27.4	25.7	(1.7)	(6.3)
<i>Waste disposal and water supply</i>	42.3	35.9	(6.4)	(15.1)
Sewage and waste disposal (including waste water)	26.5	23.1	(3.5)	(13.1)
Water supply	15.7	12.8	(2.9)	(18.5)
Power (e.g., power plants, and facilities for gathering storage, transmission, and distribution of electricity, oil and gas)	13.2	10.3	(2.9)	(21.9)
Amusement and recreation (e.g., parks, camps, sports facilities, convention centers)	11.7	8.9	(2.8)	(23.7)
Health care (primarily hospitals)	8.1	6.2	(1.9)	(23.9)
<i>Public safety</i>	9.7	6.2	(3.6)	(36.9)
Police stations, sheriffs' offices & related construction	1.6	1.7	0.1	5.3
Fire stations, rescue squads, jails, prisons, other public safety)	8.1	4.5	(3.7)	(45.2)
All other construction	20.6	14.7	(5.9)	(28.7)

**Source:** Rockefeller Institute analysis of data from the Census Bureau's Value of Construction Put in Place Survey (<http://www.census.gov/construction/c30/xls/s&lsatime.xls>). Data converted to quarterly and adjusted for inflation using the GDP price index from the U.S. Bureau of Economic Analysis.

school enrollment. However, this relief in pupil-growth pressure is likely to end soon. The National Center on Education Statistics projects that the number of pupils will rise 0.6 percent annually from 2015 through 2024.<sup>11</sup>

### Declines in Most Spending Other Than Medicaid

State and local governments also cut spending in many areas outside of construction. Census Bureau finance data allow us to examine spending cuts in some detail, and to focus on state governments. Table 3 shows state government expenditures, in billions of 2013 dollars, for 2003, 2008, and 2013 – the most recent year for which data are available, the year before the federal stimulus package began to affect state finances, and an equally spaced year before that.

The first three columns of numbers show inflation-adjusted spending in each year; the next two columns show the dollar-change in spending from one column to the next, and the final two columns show the percentage change in spending. The “Exhibit” block at the bottom of the table shows selected groupings of

**Table 3. States Cut Spending in Most Areas Other Than Medicaid and Higher Education**

State government inflation-adjusted expenditures: 2003, 2008 and 2013							
<i>Billions of 2013 dollars</i>							
	2003	2008	2013	<i>\$ Change</i>		<i>% Change</i>	
				2003 to 2008	2008 to 2013	2003 to 2008	2008 to 2013
<b>General expenditures</b>	<b>\$1,432.4</b>	<b>\$1,622.4</b>	<b>\$1,683.2</b>	<b>\$190.0</b>	<b>\$60.8</b>	<b>13.3</b>	<b>3.7</b>
<i>Education</i>	505.9	589.0	599.2	83.1	10.1	16.4	1.7
Elementary & secondary education	289.7	331.5	318.4	41.8	(13.1)	14.4	(3.9)
Higher education and other education	216.2	257.5	280.7	41.3	23.2	19.1	9.0
<i>Health and public welfare services</i>	496.0	567.4	649.9	71.4	82.5	14.4	14.5
Medical vendor payments (primarily Medicaid)	260.8	310.1	399.1	49.4	89.0	18.9	28.7
Health & hospitals (generally excluding Medicaid)	109.1	124.5	130.7	15.5	6.2	14.2	5.0
Children’s services, social services, cash assistance, low-income energy assistance, homeless services, and other public welfare	126.1	132.7	120.0	6.6	(12.7)	5.2	(9.6)
<i>Other major functions</i>	197.5	215.2	202.7	17.7	(12.5)	9.0	(5.8)
Highways	105.5	115.7	112.2	10.2	(3.6)	9.7	(3.1)
Police & corrections	61.9	68.3	63.5	6.4	(4.8)	10.3	(7.0)
Natural resources, plus parks & recreation	30.1	31.1	27.0	1.1	(4.1)	3.6	(13.3)
<i>Administration, interest, and all other</i>	233.0	250.8	231.5	17.8	(19.4)	7.6	(7.7)
Finance, judiciary, legislatures & other administration	54.0	57.6	52.8	3.5	(4.8)	6.5	(8.3)
Interest on debt	38.5	48.2	46.1	9.7	(2.1)	25.3	(4.3)
All other general expenditures	140.5	145.0	132.6	4.5	(12.5)	3.2	(8.6)
<i>Exhibit: Amounts distributed within categories above</i>							
Higher education, medical vendor payments, health & hospitals	586.1	692.2	810.5	106.1	118.4	18.1	17.1
Expenditures other than for higher education, medical vendor payments, health & hospitals	846.4	930.3	872.6	83.9	(57.6)	9.9	(6.2)
Salaries & wages	225.7	247.3	259.6	21.6	12.3	9.6	5.0
Capital outlays	104.4	116.0	108.7	11.6	(7.3)	11.1	(6.3)
Pension contributions	24.1	39.3	45.9	15.2	6.7	63.1	16.9

**Sources:** Rockefeller Institute analysis of data from Census Bureau annual surveys of state government finances and retirement system finances. Amounts adjusted for inflation using GDP price index from Bureau of Economic Analysis. Note: Pension contributions are not available in the surveys of state government finances, and were obtained from a separate survey of retirement systems.



expenditures that are included within the block above.

Total general expenditures grew rapidly between 2003 and 2008, rising \$190 billion, or 13.3 percent. Growth then slowed between 2008 and 2013 as states began to respond to the recession; spending rose by \$60.8 billion (3.7 percent) between 2008 and 2013.

Changes in spending varied greatly across categories. Higher education, medical vendor payments (a close counterpart to Medicaid), and health and hospital spending increased between 2008 and 2013 by \$118.4 billion, or 17.1 percent, while all other areas of spending declined by \$57.6 billion, or 6.2 percent. Table 3 also shows that pension contributions, while still small relative to state budgets in aggregate, accounted for a substantial share of spending growth in both periods.<sup>12</sup>

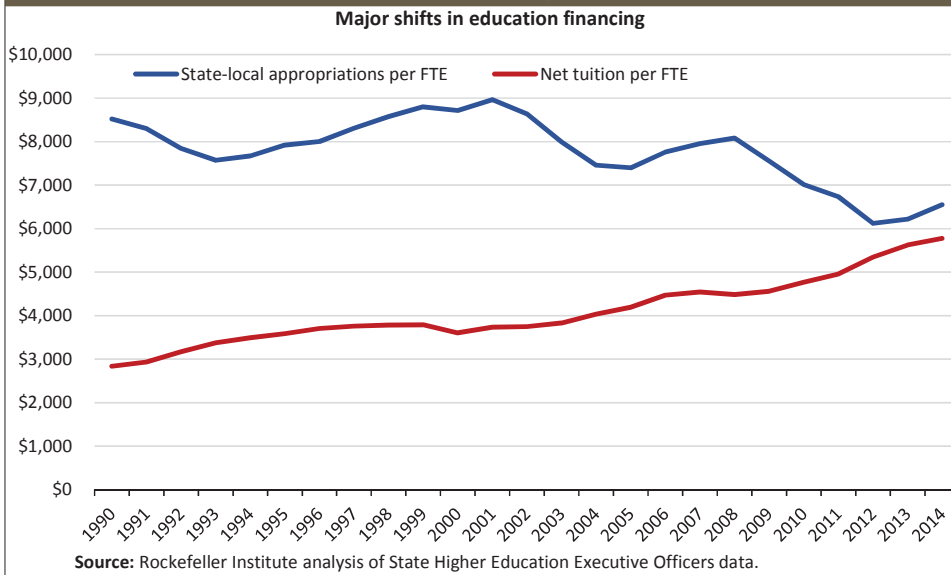
The table reflects total spending on higher education, including spending from state appropriations to institutions of higher education and spending from tuition and fees. Even though state governments cut their direct support for higher education in response to the recession, public higher education institutions raised revenue through higher tuition and fees to help meet increased demand for higher education.<sup>13</sup>

State-local appropriations per full-time-equivalent (FTE) student have declined significantly between 1990 and 2014, while net tuition per FTE more than doubled. (See Figure 12.) These trends demonstrate a significant shift toward privatization of the costs of public higher education. In 1990, net tuition constituted 25 percent of public higher education total educational revenue. By 2000, the net tuition share had increased to 29.3 percent and by 2010 it had increased to 40.6 percent. Growth in the net tuition share has since accelerated, reaching 47.1 percent of total educational revenue in 2014. The increased tuition and diminishing state support contrib-

uted to rapid growth in student loan debt balances, increasing pressure on already hard-pressed students and their families. In the aftermath of the Great Recession, most other consumer debts such as credit cards, mortgages, and auto loans have declined while student loans skyrocketed. Currently student loans represent the largest category of household debt outside of mortgages.<sup>14</sup>

Medicaid expenditures (proxied by the Census category, “medical vendor payments”) were driven

**Figure 12. State and Local Governments Have Cut Appropriations for Higher Education**





upward by rapid recession-related increases in enrollment and by slow growth in spending per enrollee.<sup>15</sup> Because Medicaid is largely an entitlement, as a practical matter states needed to find funds for increased spending, although they had substantial assistance early in the recession from the federal stimulus package.

If we exclude medical vendor payments and health, much of which is entitlement-related and difficult to control in the short term, and higher education, which as discussed above is partly financed by tuition, much of what remains is more-discretionary spending, which states are likely to cut in difficult times. As shows, states cut inflation-adjusted spending in almost every significant area. States generally face pressure to increase spending over time due to increases in the overall population, student enrollment, and populations served by government programs. It is thus surprising to see outright declines over extended periods of time.

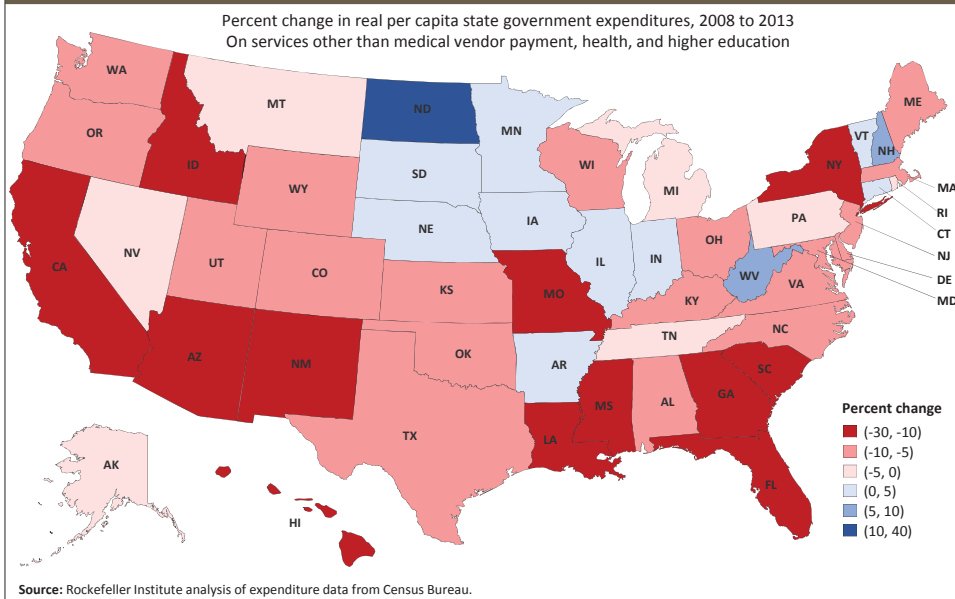
The spending reductions have been widespread. Adjusted for inflation and changes in population, spending on these activities fell in thirty-eight states between 2008 and 2013 (see Figure 13). The median drop, for states with declines, was 7.6 percent.

Elementary and secondary education is the largest component of spending outside of Medicaid, health, hospitals, and higher education, by far. Total state government inflation-adjusted spending on elementary and secondary education fell by 3.9 percent between fiscal years 2008 and 2013 (see Table 3), and declined by 4.3 percent on a per-pupil basis.

Between 2008 and 2013, real per-pupil K-12 spending declined in thirty-five states. Sixteen of those states had double-digit declines, with the largest reductions in Hawaii and South Carolina at 22.9 and 19.0 percent, respectively. In almost all states, most state government spending on elementary and secondary education is for aid to

local school districts, and state cuts put substantial pressure on local school districts to raise local tax revenues and cut educational services. As discussed in the next section, cuts in local government education employment have been substantial. Sound elementary and secondary education is critical to the nation's productivity and longer-term economic growth. While research

**Figure 13. Spending on Activities Other Than Medical Vendor Payments (Primarily Medicaid), Health, and Higher Education Declined in Thirty-Eight States**



on systematic links between education spending and the quality of education may be mixed, with sustained cuts schools will have fewer resources to work with, and likely will have larger class sizes, threatening the quality of education.

### Cuts in State and Local Government Employment

States have cut public employment as they have reduced spending. Many local governments have cut employment, too, generally with a lag. As Table 4 shows, these cuts are large compared with past recessions and recoveries. Employment grew for more than a year after the start of the recession before cuts took hold. In the past six years, states have cut noneducation employment by 6.0 percent, compared with an increase in past recoveries of 16.5 percent for the typical (or median) recovery. State education employment, which is mostly higher education, increased by 3.2 percent over the past six years. The growth in higher education employment is mostly attributable to the growth in part-time faculty. In fact, part-time faculty appointments grew dramatically in the last four decades, while tenured and tenure-track faculty appointments have seen only modest growth.<sup>16</sup> Tenured and tenure-track full-time positions now represent less than one-quarter of all higher education appointments, and the proportion of employees in both categories fell in the aftermath of the Great Recession.

Census Bureau data on government employment, while less current than BLS data, provide insight into state priorities. Table 5 shows state government employment in the 2009 peak year, four years later (the most recent year), and four years earlier. As the exhibit at the bottom shows, between 2009 and 2013, states increased employment in higher education and health, but cut employment in other areas in the aggregate by 6.5 percent. Almost every major area was cut by several percentage points. The largest cuts were to corrections, although a substantial part of the

decline may be attributable to changes in workload. The state prisoner population peaked in 2009 and fell by 3.4 percent by 2013, reflecting among other things changes in policies for sentencing, parole, and probation.<sup>17</sup>

**Table 4. States and Localities Have Cut Employment Since the Start of the Recovery**

Percentage change in employment, six years after start of recovery								
Recession starting in:	Private sector	State government			Local government			State & local total
		Total	Education	Non-education	Total	Education	Non-education	
1957	11.9	31.1	55.0	22.3	26.7	33.0	20.4	27.8
1960	20.3	41.6	81.2	24.9	34.8	44.9	24.1	36.5
1969	12.7	22.7	23.5	22.6	21.4	19.6	23.4	21.8
1973	20.8	14.8	6.8	20.7	12.1	8.5	16.5	12.8
1980	12.2	7.4	10.8	5.4	0.9	5.3	(3.0)	2.7
1981	21.7	12.8	13.6	12.4	10.3	12.1	8.3	11.0
1990	13.3	5.0	7.8	3.1	10.4	12.2	8.3	8.9
2001	5.5	3.1	6.9	0.2	6.2	6.2	6.2	5.4
2007	10.5	(1.8)	3.2	(6.0)	(3.2)	(3.7)	(2.6)	(2.8)
<i>Median, prior recoveries</i>	<b>12.7</b>	<b>12.8</b>	<b>10.8</b>	<b>12.4</b>	<b>10.4</b>	<b>12.1</b>	<b>8.3</b>	<b>11.0</b>

Source: Rockefeller Institute analysis of Current Employment Statistics, U.S. Bureau of Labor Statistics

Note: 1981 recession is excluded because it was so close to the 1980 recession.

Table 5. States Cut Employment Substantially in Most Areas Other Than Higher Education and Health

State government employment: 2005, 2009, and 2013							
<i>Full plus part-time employment</i>							
	2005	2009	2013	Change		% Change	
				2005 to 2009	2009 to 2013	2005 to 2009	2009 to 2013
<b>State government employment</b>	<b>5,078,268</b>	<b>5,345,775</b>	<b>5,281,933</b>	<b>267,507</b>	<b>(63,842)</b>	<b>5.3</b>	<b>(1.2)</b>
<i>Education</i>	<i>2,458,758</i>	<i>2,649,043</i>	<i>2,732,734</i>	<i>190,285</i>	<i>83,691</i>	<i>7.7</i>	<i>3.2</i>
Elementary & secondary education	58,778	66,915	60,562	8,137	(6,353)	13.8	(9.5)
Higher education & other education	2,399,980	2,582,128	2,672,172	182,148	90,044	7.6	3.5
<i>Health and public welfare services</i>	<i>843,518</i>	<i>886,136</i>	<i>862,368</i>	<i>42,618</i>	<i>(23,768)</i>	<i>5.1</i>	<i>(2.7)</i>
Health	184,934	191,526	204,811	6,592	13,285	3.6	6.9
Hospitals	423,174	446,613	419,634	23,439	(26,979)	5.5	(6.0)
Public welfare	235,410	247,997	237,923	12,587	(10,074)	5.3	(4.1)
<i>Other major functions</i>	<i>1,017,858</i>	<i>1,042,600</i>	<i>951,356</i>	<i>24,742</i>	<i>(91,244)</i>	<i>2.4</i>	<i>(8.8)</i>
Highways	242,210	243,141	222,820	931	(20,321)	0.4	(8.4)
Corrections	469,099	490,035	439,240	20,936	(50,795)	4.5	(10.4)
Police officers	63,460	68,014	67,626	4,554	(388)	7.2	(0.6)
Other police employees	41,010	39,819	37,722	(1,191)	(2,097)	(2.9)	(5.3)
Natural resources, plus parks & recreation	202,079	201,591	183,948	(488)	(17,643)	(0.2)	(8.8)
<i>Administration &amp; all other</i>	<i>758,134</i>	<i>767,996</i>	<i>735,475</i>	<i>9,862</i>	<i>(32,521)</i>	<i>1.3</i>	<i>(4.2)</i>
Finance, judiciary, legislatures, & other administration	490,864	503,868	487,239	13,004	(16,629)	2.6	(3.3)
All other employment	267,270	264,128	248,236	(3,142)	(15,892)	(1.2)	(6.0)
<b>Exhibit: Amounts included above</b>							
Higher education & health employment	2,584,914	2,773,654	2,876,983	188,740	103,329	7.3	3.7
Employment other than higher education & health	2,493,354	2,572,121	2,404,950	78,767	(167,171)	3.2	(6.5)

Source: Rockefeller Institute analysis of Census Bureau annual survey of state government employment.

## Special Circumstances in Many States

A surprising number of states face special circumstances, most of which are contributing to fiscal stress. Some states face several of the stresses described below.

Connecticut, Kansas, and New Jersey are struggling with the aftermath of well-publicized income tax revenue shortfalls at the end of the 2014 fiscal year that threw their 2015 budgets out of balance. Efforts to balance these budgets relied disproportionately on nonrecurring revenue, in turn creating difficulties for their 2016 budgets.

Kansas cut taxes sharply in 2012 and 2013. In addition to the April 2014 income tax shortfall it has had several rounds of subsequent significant revenue shortfalls. It faces difficult choices about the extent to which it should cut spending or modify elements of the tax cuts.

Illinois, Kentucky, New Jersey, and Pennsylvania are struggling to accommodate rising required pension contributions due to investment shortfalls and years of contribution underpayments.<sup>18</sup>

### Challenges in States Heavily Reliant on Oil, Natural Gas, and Coal Production

Most states are heavily dependent on the personal income tax and the sales tax. However, some states also rely heavily on severance tax revenues, which are based on natural resources, including oil and coal. Large fluctuations in oil production and oil prices have created budget challenges for the oil-rich and oil-dependent states. Budget forecasters in the nine oil-rich states — Alaska, Louisiana, Montana, New Mexico, North Dakota, Oklahoma, Texas, West Virginia, and Wyoming — are facing extraordinary challenges in forecasting oil prices and related tax revenue. To make things even more complicated, four of these nine states (Montana, North Dakota, Texas, and Wyoming) have biennial budgets, which means they have to forecast revenues for two years ahead.

Falling oil prices are a threat to the finances of oil-producing states, either directly through their impact on severance taxes, or through their impact on the broader state economy. Alaska, Louisiana, New Mexico, North Dakota, and Oklahoma are addressing revenue shortfalls or slowing revenue growth related to the drop in the price of oil. Table 6 below shows severance taxes as a share of total taxes for fiscal year 2008 vs. fiscal year 2014 in nine states that have the highest reliance on severance taxes. The recent impact of severance taxes has been mixed; they have declined as a share of total taxes in four of the oil-rich states but increased in five.

Alaska has suffered greatly from falling oil prices. Alaska does not have broad-based personal income or sales taxes; about 90 percent of the state's general fund comes from oil and gas severance taxes. Oil booms and busts, therefore, have a big impact on Alaska's budget. Large declines in oil prices in recent months left the state with unprecedented budget deficits. Alaska is facing a \$3.5 billion budget gap, but it also has a \$14 billion savings fund,

which gives it some breathing room. However, the governor of Alaska has stated that the savings bridge is temporary and not sustainable, and the government needs to find longer-term solutions. The governor cut the capital budget in half and proposed large cuts in discretionary spending.<sup>19</sup>

Louisiana, as well, is facing revenue shortfalls, partly due to declining oil prices. The shortfalls in Louisiana are also attributable to corporate tax breaks. The governor's fiscal year 2016 budget proposed \$1.2 billion or 4.7 percent cuts in total spending compared to fiscal 2015. What is even more dramatic is that the total budget in Louisiana has been reduced by nearly \$10 billion since 2008.<sup>20</sup>

**Table 6. Severance Taxes Show Large Fluctuations Across Oil Rich States**

Severance taxes as share of total taxes, FY 2008 vs FY 2014

State	FY 2008	FY 2014	Change
<b>United States</b>	<b>2.3%</b>	<b>2.1%</b>	<b>-0.2%</b>
Alaska	79.5	72.4	(7.1)
Louisiana	9.4	8.9	(0.5)
Montana	14.1	11.5	(2.6)
New Mexico	12.0	18.5	6.5
North Dakota	34.2	53.8	19.6
Oklahoma	14.2	7.5	(6.8)
Texas	9.1	10.9	1.8
West Virginia	7.1	12.7	5.6
Wyoming	36.8	39.0	2.3

**Source:** Rockefeller Institute analysis of Census Bureau annual survey of state government tax collections.

Oil prices have also affected Oklahoma, where severance taxes as a share of total taxes declined by 6.8 percent between fiscal year 2008 and 2014. State forecasters projected a 4.1 percent shortfall in state revenues in fiscal year 2016 compared to fiscal 2015. To address the budget challenge, the governor of Oklahoma proposed budget cuts of 6.25 percent or less in appropriations to fifty-five state agencies.<sup>21</sup>

Oil prices have had a less dramatic impact on North Dakota and Texas, despite the fact that both states benefit greatly from oil production. However, unlike Alaska or New Mexico, Texas and North Dakota do not put substantial revenues from oil taxes into the general fund, and instead allocate them to other funds, including the rainy day funds. In Texas, oil revenues mostly go to the Economic Stabilization Fund and the State Highway Fund. In North Dakota, oil revenues are allocated to the Legacy Fund, the Strategic Investment and Improvement Fund, the Property Tax Relief Fund, the Disaster Fund, and several other funds.

In North Dakota, there is a cap and only up to \$300 million from oil and gas taxes can be deposited to the general revenue fund. According to North Dakota's Office of Management and Budget, as of April 2015, in the 2013-15 biennium to date, \$1.7 billion from the total production and extraction taxes has been deposited into the legacy fund, for a total balance of \$3.2 billion.<sup>22</sup> As of April 2015, oil and gas tax revenues deposited to the general fund represent less than 3.0 percent of total general fund revenues for the 2013-15 biennium to date. Therefore, falling oil prices have had little impact on North Dakota's general fund. Moreover, the number of producing oil wells and total oil production has been increasing steadily in North Dakota. However, the state is not projecting strong growth in total oil extraction and gross production tax collections during the 2015-17 biennium.<sup>23</sup>

Texas has a more diverse economy and does not rely solely on the energy sector. In fiscal year 2014, severance taxes made up 11 percent of total state taxes in Texas. The oil and natural gas severance taxes in Texas consist of three types of taxes: (1) an oil production tax levied at 4.6 percent, (2) a natural gas tax levied at 7.5 percent, and (3) an oil regulation tax levied at 3/16th of one cent per barrel of oil produced in Texas. Severance taxes are therefore dependent on production and price, both of which have been quite volatile in recent years. "Oil production and regulation taxes are expected to generate \$5,689 million in the 2016-17 biennium, compared to \$6,637 million in 2014-15, a 14.3 percent decrease."<sup>24</sup>

Wyoming is a very energy intensive state, and is the nation's largest coal-producing state. The state collected about \$1.8 billion in severance taxes in 2013-14 biennium and is projected to collect about \$1.6 billion in 2015-16 biennium. However, only about 25 percent of total severance taxes are deposited to the general fund and the rest are distributed to other funds, including the Budget Reserve Fund and the Permanent Wyoming Mineral Trust Fund.<sup>25</sup> In the last four years, Wyoming had doubled the size of its rainy



day funds. Thus, the state is prepared to face the falling oil prices, at least in the short term.

### Challenges Related to Income Taxes

Some states face fiscal challenges due to high reliance on personal income taxes, particularly reliance on taxes on nonwage income. Table 7 below shows the top ten states in terms of state government personal income tax as a share of total tax revenue, and capital gains as a share of total adjusted gross income (AGI). Oregon has the highest reliance on personal income taxes among states, while New York relies the most on capital gains in its income tax. (This measure does not take into account effective tax rates on capital gains. For a table that takes these tax rates into account, see our previous report.<sup>26</sup>)

In fiscal year 2014, personal income taxes comprised 68.7 percent of total state government taxes in Oregon. High reliance on personal

income taxes as well as the states' so-called "kicker" law creates unique fiscal challenges for the state. In 1979, Oregon passed the "2 percent kicker" law that "requires the state to refund excess revenue to taxpayers when actual General Fund revenues exceed the forecast amount by more than 2 percent."<sup>27</sup> For example, in the 2005-07 biennium, revenues were overestimated and the state had to refund \$1.1 billion to taxpayers, even though it faced big shortfalls in the 2007-09 biennium.

Several states, including California, Colorado, Connecticut, Massa-

chusetts, and New York, depend heavily on personal income taxes and particularly on income from capital gains. Income tax collections in these states can see large fluctuations depending on the stock market and economic conditions. Both New York and California were hit hard during the Great Recession, and both states enacted large personal income tax increases in fiscal years 2010 and 2013. Connecticut, Illinois, and New Jersey also enacted large personal income tax increases in fiscal years 2010-12 in order to address shortfalls caused by the Great Recession.

To make things even more complicated, states that have relied heavily on capital gains have seen large fluctuations in income tax collections because of the federal "fiscal cliff" that led to a one-time surge in income tax collections in 2013 and reversal of that effect in 2014.

**Table 7. Income Taxes as Share of Total Taxes and Capital Gains as Share of AGI in Top Ten States**

PIT as share of state gov. taxes, 2014		Capital gains as share of AGI, 2012	
<b>United States</b>	<b>35.9%</b>	<b>United States</b>	<b>6.1%</b>
Oregon	68.7	New York	10.7
Virginia	57.4	North Dakota	8.5
New York	55.8	Massachusetts	8.4
Massachusetts	52.5	Connecticut	8.3
California	49.2	Colorado	8.2
Connecticut	48.8	California	8.2
Colorado	48.1	Montana	7.6
Georgia	48.1	Utah	6.9
Missouri	47.7	Vermont	6.7
Utah	45.8	Oklahoma	6.5

**Source:** Census Bureau (tax data) and IRS (capital gains and AGI data).



## Looking Ahead

### The Economy and Tax Revenue

State finances are tied closely to the economy. At this writing, on average, major economic forecasters expect that the national economy will continue to improve throughout 2015 and 2016, inflation will be low but gradually rising, and interest rates will rise slightly.<sup>28</sup> The Congressional Budget Office's January 2015 forecast is in line with this consensus (see Table 8).<sup>29</sup> All forecasts are subject to uncertainties, such as those related to oil prices, Federal Reserve Board action, actions by federal policymakers, and actions of foreign governments, and forecasts often are quite wrong for these and other reasons. Nonetheless, this reflects current mainstream thinking.

What does a forecast like this mean for state finances? It is useful to divide state tax revenue into several categories.

**Table 8. The Congressional Budget Office Projects Continued Economic Improvement in a Low-Inflation Environment, With Gradually Rising Interest Rates**

Economic forecast for selected variables <i>Congressional Budget Office, January 2015</i>				
Growth rates (percentage change)	Calendar years			
	2014	2015	2016	2017
Real GDP (inflation-adjusted)	2.3	2.9	3.0	2.7
Employment	1.8	1.9	1.3	1.0
Consumer prices (CPI-U)	1.7	1.1	2.2	2.3
Personal income	3.9	4.3	4.8	4.9
Wages	4.3	4.3	4.7	4.7
Non-wage personal income	3.2	4.0	4.1	5.0
Capital gains (not included in personal income)	18.5	5.2	0.2	2.1
<b>Rates (percent)</b>				
Unemployment rate	6.2	5.6	5.4	5.3
3-month Treasury bill	0.0	0.2	1.2	2.6
10-year Treasury note	2.6	2.8	3.4	3.9

**Source:** Congressional Budget Office, *The Budget and Economic Outlook: 2015 to 2025, January 2015*, [www.cbo.gov/publication/49892](http://www.cbo.gov/publication/49892). (Files: 45066-2015-01-EconomicDataProjections2.xlsx and 45069-2015-01-BudgetDataProjections2.xlsx).

### Personal Income Taxes

State personal income taxes, which accounted for 35.9 percent of state tax revenue in fiscal 2014, generally are “elastic,” growing somewhat faster than the economy. Income taxes are elastic primarily because they tend to be progressive, with higher effective tax rates for higher-income taxpayers.<sup>30</sup> Over time, productivity growth and inflation cause nominal incomes to rise, pushing people into higher tax brackets, causing tax revenue to rise faster than income.<sup>31</sup> This feature means that states have to cut income taxes just to stay even — effective rates will rise during long periods of growth, absent cuts to or restructuring of the tax. In fact, during the long period of tax-cutting from 1995 through 2001 (Figure 10),

which was dominated by income tax cuts, state income taxes nonetheless rose from 2.0 percent of personal income to 2.3 percent. Progressivity, however, was not the only reason for this rapid growth in the income tax relative to the economy.

Sharp and sudden changes in nonwage income, particularly capital gains, are the second major reason that income tax growth will diverge from overall growth in the economy.<sup>32</sup> Capital gains realizations are volatile and difficult to forecast. The underlying pool of potential gains is affected by stock, bond, and real estate prices and other hard-to-predict factors. Also, the choice to realize gains is affected not only by current tax rates but by hard-to-predict factors such as expected changes in tax rates. Governments often use sophisticated models that include these and other factors, but the error ranges for the models are large and all forecasts should be taken with a grain of salt. The Congressional Budget Office (CBO) estimates that capital gains grew by 18.5 percent in the 2014 calendar year (Table 8), after which they will grow much more slowly. All else equal, this suggests that state income taxes are likely to grow fairly rapidly in the April-June quarter of 2015, when the tax returns for 2014 are filed, but subsequent capital gains are unlikely to provide a boost to income tax growth and may even be a drag. As of this writing, federal income taxes from sources heavily affected by capital gains were up 13 percent in April and May over the prior year,<sup>33</sup> and similar income tax items appear to be up substantially in several states. California and North Carolina have announced positive “April surprises” that will help their budgets substantially.

Other factors also can cause personal income tax growth to diverge from overall economic growth. The most important recently has been rapid growth in retirement income, including the federally taxable portions of pensions, Social Security income, and distributions from individual retirement arrangements. This income has been driven upward by the aging of the population and, in the case of IRA distributions, growth in stocks and other financial assets. Between 2007 and 2012 (latest year available), wages grew by 7 percent but these income sources grew by 35 percent. Even though retirement income accounted for only 9 percent of adjusted gross income in 2007 while wages accounted for 68 percent, it contributed about two-thirds as much to income growth as did wages.<sup>34</sup> Most states, however, exempt some of this federally taxable income in an apparent effort to lure seemingly footloose senior citizens, despite the absence of meaningful evidence from research that state income tax breaks affect elderly migration.<sup>35</sup> Illinois, arguably the most fiscally stressed state, exempts all retirement income from tax, including IRA distributions.<sup>36</sup>

The current economic environment suggests that the typical state income tax is unlikely to grow much faster than the overall economy over the next several years. Progressive tax structures will drive growth up slightly, perhaps offset by drag from slow growth in nonwage income. While retirement income will

continue growing rapidly due to population aging, many states will exclude much of this income from tax.<sup>37</sup> Individual states will differ from this national-average outlook due to differences in economies and tax structures.

### **General Sales Taxes**

General sales taxes accounted for 31.3 percent of state tax revenue in 2014. Sales taxes generally have been growing more slowly than the economy for more than forty years.<sup>38</sup> This is a result of the difficulty in taxing services and of collecting tax on Internet sales, among other things. The sales tax is likely to continue to grow more slowly than the economy for years to come.

### **Selective Sales Taxes and Licenses**

Selective sales taxes and licenses, such as taxes on cigarettes, motor fuel, and alcohol, accounted for 22.1 percent of state tax revenue in 2014. These taxes usually are based on the quantity of the good sold (for example, 15 cents per gallon of gas, or \$3 per pack of cigarettes), rather than on the sales price as with the general sales tax. When the quantity purchased goes up, tax revenue goes up, and when the quantity goes down, tax revenue goes down. Two of the largest selective sales taxes, motor fuel taxes and cigarette taxes, have long-term downward trends: long-term improvements in automotive fuel economy have led to declines in gasoline consumption and in motor fuel taxes, while cigarette consumption has declined in large part in response to government efforts to reduce smoking.

### **Conclusion**

The slow economic recovery, a fall-off in capital gains, and reluctance to raise taxes have combined to depress state tax revenue compared to past recoveries. States have had to make room for Medicaid spending driven by recession-induced enrollment increases. The result has been years of cuts in infrastructure spending, government employment, education, and other areas, which in turn appear to have created pent-up demand, pressure to restore some cuts, and reluctance to cut spending much further.

These pressures have been exacerbated by special circumstances in many states — circumstances that mostly increase fiscal stress. Several states need to increase pension contributions significantly to pay now for services delivered in the past, driven by years of shirking and by investment income shortfalls. A few states are struggling to live within the confines of large tax cuts. Other states face pressures to find revenue to fund transportation. Many oil-producing states are finding their economies out of phase with the national recovery, facing new revenue shortfalls while most other states' revenue has stabilized.

The net result of these forces has been budget shortfalls in several states, and fiscal stress in many.

Looking forward, mainstream economic forecasts for 2015 for the U.S. as a whole call for low inflation, with nominal income growth in the 4 to 5 percent range. Absent booming financial markets or other special factors, income and sales tax revenue growth for the U.S. is unlikely to fall far outside the 4 to 5 percent range – on the high side in the case of income taxes, and on the low side in the case of sales taxes. This is not likely to be enough to restore spending cuts, fund infrastructure expansion, pay for Medicaid growth, and cover the costs of past promises. States face difficult choices in the midst of growth. As a result, their ability to invest in infrastructure and education, and to support the nation’s social safety net, without either tax increases or cuts in other areas is quite limited.

## Endnotes

- 1 The recovery from the 2001 recession was historically weak but employment did get more than 4 percent above its prior peak. Seven years after the start of that recession employment was again heading downward, reflecting the onset of the Great Recession. The graph does not show the 1981 recession separately; rather, it is included in the period after the 1980 recession.
- 2 We use the four-quarter moving average of tax revenue, adjusted for inflation with the gross domestic product price index from the U.S. Bureau of Economic Analysis. As with our analysis of economic recoveries, we treat the 1981 recession as part of the 1980 recession.
- 3 We have written about these gyrations and the incentives that caused them in several *State Revenue Reports* during the relevant time period, available at [http://www.rockinst.org/government\\_finance/](http://www.rockinst.org/government_finance/).
- 4 *States’ Revenue Estimating: Cracks in the Crystal Ball* (Washington, DC: Pew Center on the States and Albany: Rockefeller Institute of Government, March 2011), [http://www.rockinst.org/pdf/government\\_finance/2011-03-01-States\\_Revenue\\_Estimating\\_Report.pdf](http://www.rockinst.org/pdf/government_finance/2011-03-01-States_Revenue_Estimating_Report.pdf). Donald J. Boyd and Lucy Dadayan, *State Tax Revenue Forecasting Accuracy: Technical Report* (Albany: The Nelson A. Rockefeller Institute of Government, September 2014), [http://www.rockinst.org/pdf/government\\_finance/state\\_revenue\\_report/2014-09-30-Revenue\\_Forecasting\\_Accuracy.pdf](http://www.rockinst.org/pdf/government_finance/state_revenue_report/2014-09-30-Revenue_Forecasting_Accuracy.pdf). *Managing Volatile Tax Collections in State Revenue Forecasts* (Washington, DC: Pew Center on the States and Albany: Rockefeller Institute of Government, March 2015), <http://www.pewtrusts.org/~media/Assets/2015/03/StateRevenueForecastingReportARTFINALv4web.pdf>.
- 5 Authors’ calculations from “Table 2. Individual Income and Tax Data, by State and Size of Adjusted Gross Income, Tax Year 2012,” Statistics of Income, Internal Revenue Service, 12in54cm.xlsx, [http://www.irs.gov/file\\_source/pub/irs-soi/12in54cm.zip](http://www.irs.gov/file_source/pub/irs-soi/12in54cm.zip) and [http://www.irs.gov/file\\_source/pub/irs-soi/12in54cmcsv.csv](http://www.irs.gov/file_source/pub/irs-soi/12in54cmcsv.csv).
- 6 The table is based on data reported in the *Fiscal Survey of the States*, <http://www.nasbo.org/publications-data/fiscal-survey-of-the-states>, compiled annually by the National Association of State Budget Officers and the National Governors Association, supplemented with information from state sources for selected large actions taken outside of the survey periods. We have divided years into episodes of response to boom and bust based upon clear patterns in the data. We adjusted for inflation using the gross domestic product price index from the U.S. Bureau of Economic Analysis.
- 7 Asha W. Agrawal and Hilary Nixon, *What do Americans Think About Federal Tax Options to Support Public Transit, Highways, and Local Streets and Roads? Results from Year Five of a National Survey*, MTI Report 12-36 (San Jose: Mineta Transportation Institute, June 2014), <http://transweb.sjsu.edu/PDFs/research/1328-road-tax-public-opinion-poll-2014.pdf>.



- 8 See Carl Davis, "12 States Could Raise Gas Taxes This Year," *TaxJustice Blog*, January 29, 2015, [http://www.taxjusticeblog.org/archive/2015/01/12\\_states\\_could\\_raise\\_gas\\_taxe.php#.VXBrEs9VhBc](http://www.taxjusticeblog.org/archive/2015/01/12_states_could_raise_gas_taxe.php#.VXBrEs9VhBc); Daniel C. Vock, "Raising Gas Taxes Gets Bipartisan Boost from Governors," *Governing*, February 9, 2015, <http://www.governing.com/topics/transportation-infrastructure/gov-low-gas-prices-deteriorating-roads-fuel-push-for-gas-tax-hikes.html>; Keith Laing, "GOP governor's gas tax hike veto overridden," *The Hill*, May 18, 2015, <http://thehill.com/policy/transportation/242406-gop-governors-gas-tax-hike-veto-overridden>.
- 9 The data are adjusted for inflation using price indexes specific to each category. Price indexes were chosen based on conversations with staff of the BEA.
- 10 See *Public Spending on Transportation and Water Infrastructure, 1956 to 2014* (Washington, DC: Congressional Budget Office, March 2015), <http://www.cbo.gov/sites/default/files/cbofiles/attachments/49910-Infrastructure.pdf>. Although real transportation and water infrastructure capital spending fell 23 percent from 2003 to 2014 when adjusted for inflation using input price indexes, when adjusted using the GDP price index, real infrastructure spending actually rose by 11 percent (authors' calculations).
- 11 Authors' analysis of data in Table 203.10 of the *2014 Digest of Education Statistics*, National Center for Education Statistics, [https://nces.ed.gov/programs/digest/d14/tables/dt14\\_203.10.asp](https://nces.ed.gov/programs/digest/d14/tables/dt14_203.10.asp).
- 12 Pension contributions vary greatly around the country. In general, they are a larger share of local government budgets than state budgets, and in some states they are increasingly important.
- 13 Michael Mitchell, Vincent Palacios, and Michael Leachman, "States Are Still Funding Higher Education below Pre-Recession Levels," Center on Budget and Policy Priorities, May 1, 2014, <http://www.cbpp.org/files/5-1-14sfp.pdf>.
- 14 For more information see Meta Brown et al., "The Student Loan Landscape," *Federal Reserve Bank of New York*, February 18, 2015, [http://libertystreeteconomics.newyorkfed.org/2015/02/the\\_student\\_loan-landscape.html#.VVugTpNejMs](http://libertystreeteconomics.newyorkfed.org/2015/02/the_student_loan-landscape.html#.VVugTpNejMs)
- 15 Rachel Garfield et al., *Trends in Medicaid Spending Leading up to ACA Implementation*, Issue Brief (Menlo Park: Kaiser Commission on Medicaid and the Uninsured, February 2015), <http://files.kff.org/attachment/issue-brief-trends-in-medicaid-spending-leading-up-to-aca-implementation>
- 16 See page 7 of John W. Curtis and Saranna Thornton, *Here's the News: The Annual Report on the Economic Status of the Profession, 2012-13* (Washington, DC: American Association of University Professors, March-April 2013), <http://www.aaup.org/file/2012-13Economic-Status-Report.pdf>.
- 17 For prisoner statistics, see E. Ann Carson, *Prisoners in 2013* (Washington, DC: U.S. Bureau of Justice Statistics, September 2014), <http://www.bjs.gov/content/pub/pdf/p13.pdf>.
- 18 For pension contribution underpayments see Chris Mier, *Twelfth Annual Public Pension Funding Review* (Chicago: Loop Capital Markets, September 2014), <http://www.sdrs.sd.gov/news/documents/LoopPensionReport2014FINAL.pdf>.
- 19 See Governor Bill Walker, State of Alaska, "Speech: State of the Budget," January 22, 2015, <http://gov.alaska.gov/Walker/press-room/full-press-release.html?pr=7061>.
- 20 See "Gov. Jindal Releases Executive Budget & Presents Pathway To Protect Higher Education Funding," *Office of the Governor, Louisiana*, February 27, 2015, <http://gov.louisiana.gov/index.cfm?md=newsroom&tmp=detail&articleID=4864&printer=1>.
- 21 See *State of Oklahoma Fiscal Year 2016 Executive Budget* (Oklahoma City: Office of the Governor, February 2, 2015), p. 10, <http://www.ok.gov/OSF/documents/bud16.pdf>.
- 22 See *North Dakota REV-E-NEWS* (Bismark: Office of Management and Budget, May 2015), <http://www.nd.gov/fiscal/docs/revENews/2015/201505news.pdf>
- 23 See *State of North Dakota Executive Budget 2015-2017 Biennium* (Bismark: Office of Management and Budget, December 3, 2014), p. 21, <http://www.nd.gov/fiscal/docs/budget/executivebudgetsummary2015-17.pdf>.
- 24 See *Biennial Revenue Estimate* (Austin: Texas Comptroller of Public Accounts, January 2015), p. 15, [http://www.texastransparency.org/State\\_Finance/Budget\\_Finance/Reports/Biennial\\_Revenue\\_Estimate/2016\\_17/pdf/BRE\\_2016-17.pdf](http://www.texastransparency.org/State_Finance/Budget_Finance/Reports/Biennial_Revenue_Estimate/2016_17/pdf/BRE_2016-17.pdf).

- 25 See *Wyoming State Government Revenue Forecast Fiscal Year 205 – Fiscal Year 2020* (Cheyenne: Consensus Revenue Estimating Group (CREG), January 2015), [http://eadiv.state.wy.us/creg/GreenCREG\\_Jan15.pdf](http://eadiv.state.wy.us/creg/GreenCREG_Jan15.pdf).
- 26 See Lucy Dadayan and Donald J. Boyd, *April “Surprises” More Surprising Than Expected* (Albany: Nelson A. Rockefeller Institute of Government, June 2014), [http://www.rockinst.org/pdf/government\\_finance/state\\_revenue\\_report/2014-06-12-Special\\_ReportV5.pdf](http://www.rockinst.org/pdf/government_finance/state_revenue_report/2014-06-12-Special_ReportV5.pdf).
- 27 See <http://www.oregon.gov/DOR/NEWS/docs/kicker.pdf?ga=t>.
- 28 See “Economic Forecasting Survey,” *Wall Street Journal*, <http://projects.wsj.com/econforecast/> and “Survey of Professional Forecasters,” *Federal Reserve Bank of Philadelphia*, <http://www.philadelphiafed.org/research-and-data/real-time-center/survey-of-professional-forecasters/> for surveys of major forecasters, and see “WSJ Economic Survey,” *Wall Street Journal*, <http://online.wsj.com/public/resources/documents/wsjecon0315.xls>, for the latest forecasts available at this writing.
- 29 We use the CBO forecast because it is a well-regarded, high-quality forecast developed from an internally consistent model, and because CBO publishes details that are useful for analysis of tax revenue. It is not necessarily likely to be more or less accurate than other forecasts. The *Wall Street Journal* and the Philadelphia Federal Reserve Bank surveys report averages of major forecasts, and thus their reported numbers are not produced by a single internally consistent model. This makes them less useful for revenue analysis than the CBO forecast.
- 30 Income taxes can be progressive because marginal rates are higher at higher income levels; but even flat rate taxes can be progressive due to standard deductions, exemptions, and other features that dampen effective rates more at lower incomes than at higher incomes.
- 31 Some states counter the inflation component of this elasticity by indexing some or all of the income tax for inflation, but the tax still may grow somewhat faster than the economy due to productivity-related growth in real wages.
- 32 For useful discussions of these issues see Donald J. Boyd and Lucy Dadayan, *Revenue Declines Less Severe, But States' Fiscal Crisis Is Far From Over*, State Revenue Report (Albany: Nelson A. Rockefeller Institute of Government, April 2010); David L. Sjoquist, Andrew V. Stephenson, and Sally Wallace, “The Impact of Tax Revenue from Capital Gains Realizations on State Income Tax Revenue and Budget Conditions,” *Public Budgeting & Finance* 31, 4 (Winter 2011), 31-50; and Norton Francis with Sarah Gault, *Federal Tax Policy Uncertainty and State Revenue Estimates*, State and Local Finance Initiative (Washington, DC: Urban Institute, March 2015), <http://www.urban.org/UploadedPDF/2000125-federal-tax-policy-uncertainty-and-state-tax-revenue-estimates.pdf>.
- 33 Rockefeller Institute analysis of data available at <https://www.fms.treas.gov/fmsweb/DTSFilesArchiveAction.do>.
- 34 Authors’ calculations from “Table 2. Individual Income and Tax Data, by State and Size of Adjusted Gross Income,” Statistics of Income, Internal Revenue Service, various years, and [http://www.irs.gov/file\\_source/pub/irs-soi/12in54cmcsv.csv](http://www.irs.gov/file_source/pub/irs-soi/12in54cmcsv.csv).
- 35 Karen Smith Conway and Jonathan C. Rork, “No Country for Old Men (or Women) – Do State Tax Policies Drive Away the Elderly?,” *National Tax Journal* 65, 2 (2012): 313-56, <http://www.ntanet.org/NTJ/65/2/ntj-v65n02p313-56-country-for-old-men.pdf>.
- 36 Jeffrey R. Brown, *Including retirement income in the Illinois income tax base*, Illinois Budget Policy Toolbox (Urbana-Champaign: University of Illinois Institute of Government and Public Affairs, February 27, 2014), <http://igpa.uillinois.edu/sites/igpa.uillinois.edu/files/toolbox-budget/files/Brown-Retirement-Income-web.pdf>.
- 37 Karen Smith Conway and Jonathan C. Rork, *State Income Tax Preferences for the Elderly*. Andrew Young School of Policy Studies Research Paper Series, no. 07-20 (April 2007), [http://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=989660](http://papers.ssrn.com/sol3/papers.cfm?abstract_id=989660). Ron Snell, *State Personal Income Taxes on Pensions and Retirement Income: Tax Year 2010* (Denver: National Conference of State Legislatures, February 2011), <http://www.ncsl.org/documents/fiscal/taxonpensions2011.pdf>. Note that exemptions for IRA distributions appear to be less common than exemptions for pension or Social Security income.
- 38 John L. Mikesell, “The Disappearing Retail Sales Tax,” *State Tax Notes*, March 5, 2012.