

Excerpt from Adam J. Hoffer and Todd Nesbit, eds., *For Your Own Good: Taxes, Paternalism, and Fiscal Discrimination in the Twenty-First Century*. Arlington, VA: Mercatus Center at George Mason University, 2018.

## CHAPTER 12

# The Use of Locally Imposed Selective Taxes to Fund Public Pension Liabilities

THAD CALABRESE

*Robert F. Wagner Graduate School of Public Service, New York University*

Personnel costs are the single largest spending category for state and local governments. In fiscal year 2013, state and local governments spent more than \$857 billion on employee salaries and wages, and an additional \$338 billion on personnel benefits. These numbers represent more than 37 percent of direct spending by these governments and more than half of spending when considering current (i.e., noncapital) operations alone.<sup>1</sup> Approximately 90 percent of all state and local employees have access to retirement benefits, and 89 percent of these workers actually participate in the benefit programs offered (Bureau of Labor Statistics 2015). The primary form of retirement benefit for public employees is a defined benefit pension system, in which all employer and employee contributions are aggregated and deposited into a pension fund for investing purposes. The contributions typically are prefunded—that is, made over the course of employees’ working lives. Benefits paid out to retirees also come from the pension fund. These pension benefits are the primary source of retirement income for millions of public retirees, including about 27 percent of public employees who are not part of the federal Social Security system (Nuschler et al. 2011).

In the private sector, defined benefit pension plans are insured by the Pension Benefit Guaranty Corporation (PBGC) to ensure that beneficiaries do not lose all pension benefits in the event a corporation or its pension fund becomes insolvent. Government pension plans, however, are not insured by the PBGC. If a public pension plan exhausts its resources, it will either cease to pay benefits (as happened in Prichard, AL; see Cooper and Walsh 2010) or the plan sponsor will need to provide additional money to keep benefits flowing to retirees. This chapter examines a growing phenomenon in pension funding in which a jurisdiction enacts a new selective tax or fee, or increases an existing one, to fund its unfunded pension liabilities. Given the relatively recent enactment of this practice in a few jurisdictions, the trend is described and commonalities between those jurisdictions are detailed. In addition, this chapter frames the importance of public pensions to the finances of state and local governments, and it highlights other potential changes that might influence the use of locally imposed selective taxes by governments to address unfunded liabilities (pensions as well as others).

### **IMPORTANCE OF PUBLIC PENSIONS TO PUBLIC FINANCES**

In 1993, state and local governments spent nearly \$2 trillion in total (in inflation-adjusted dollars), \$86 billion of which were pension expenditures paid into pension funds, representing 4.3 percent of total state and local spending.<sup>2</sup> By 2012, state and local spending had grown to more than \$3.2 trillion in total; pension contributions grew to \$248 billion—or 7.6 percent of total spending. Whereas total expenditures by state and local governments grew 63 percent in real terms between 1993 and 2012, pension expenditures increased 187 percent—nearly three times as much. On average, while state and local government spending has increased nearly 3 percent in real terms every year, pension expenditures have increased at almost double the rate of all spending (see table 1). This increased spending is not only the result of the economic troubles governments faced from stock market declines in 2008. Excluding 2008–2014, pension expenditures still grew nearly 7 percent annually.

Furthermore, these expenditures reflect only spending actually paid into public pension systems and do not include contributions deferred by governments. Novy-Marx and Rauh (2014) estimate that contributions to public pension systems would have to exceed 14 percent of state and local government revenues for public pensions to reach full funding (in which assets matched actuarial accrued liabilities) over 30 years.

**Table 1.** Public Pensions and Public Budgets, 1993–2014

Year	Total State and Local Pension Expenditures (\$ thousands)	Annual Change (%)	Total State and Local Expenditures (\$ thousands)	Annual Change (%)	Public Pensions as Share of Total State and Local Expenditures (%)
1993	86,173,052		1,988,456,407		4.3
1994	93,543,266	8.6	2,019,586,835	1.6	4.6
1995	98,848,408	5.7	2,099,304,490	3.9	4.7
1996	107,127,319	8.4	2,108,797,926	0.5	5.1
1997	112,483,107	5.0	2,154,590,504	2.2	5.2
1998	122,018,715	8.5	2,221,117,707	3.1	5.5
1999	127,961,273	4.9	2,310,433,282	4.0	5.5
2000	138,106,837	7.9	2,401,650,562	3.9	5.8
2001	150,059,331	8.7	2,538,662,797	5.7	5.9
2002	161,504,669	7.6	2,699,681,446	6.3	6.0
2003	173,492,641	7.4	2,784,447,842	3.1	6.2
2004	182,281,796	5.1	2,840,640,409	2.0	6.4
2005	189,159,379	3.8	2,870,792,148	1.1	6.6
2006	195,409,964	3.3	2,938,372,703	2.4	6.7
2007	210,737,977	7.8	3,041,449,309	3.5	6.9
2008	213,824,545	1.5	3,119,254,658	2.6	6.9
2009	226,365,027	5.9	3,273,581,348	4.9	6.9
2010	235,090,873	3.9	3,383,268,617	3.4	6.9
2011	246,172,916	4.7	3,328,493,356	-1.6	7.4
2012	247,723,000	0.6	3,249,742,998	-2.4	7.6
2013	262,498,990	6.0	N/A		
2014	272,862,247	3.9	N/A		
Cumulative change, 1993–2012	187.47%		63.43%		
Average annual change, 1993–2012	5.74%		2.64%		
Average annual change, 1993–2007	6.61%		3.09%		

Sources: US Census Bureau (1993–2014) and US Census Bureau (1993–2012).

Note: All data are inflation adjusted to 2014 levels using the Bureau of Labor Statistics Consumer Price Index All Urban Consumers (CPI-U) table. N/A = data are not yet publicly available.

Table 1 shows that public pension expenditures are an increasing share of state and local government spending, increasing from just over 4 percent in 1993 to nearly 8 percent in 2012. In addition, because pension expenditures consume general fund revenues of governments, other programs that are also funded from governments' operating budgets must compete with these growing pension expenditures for resources (Peng 2014). Some states and municipalities have issued taxable pension obligation bonds, in which debt substitutes for other current budgetary resources; empirical analyses of this technique have found little budgetary relief resulting from this strategy (e.g., see Calabrese and Ely 2013). State and local governments, then, face the need to either reduce spending on nonpension items or increase taxes. Another option is deferral of required pension contributions, causing the government to fall even further behind in the long term.

### **LINKING THE BUDGET TO THE BALANCE SHEET—UNFUNDED PENSION LIABILITIES**

Unfunded pension liabilities occur because governments deliberately underfund their annual pension contributions or because results (including investment returns) do not meet expectations. When discussing the unfunded levels of government pension systems, this chapter relies on data reported by governments, which do not report liabilities calculated in a common method with common actuarial assumptions. Government systems tend to use discount rates that are much higher compared to private pension systems (GAO 2014),<sup>3</sup> and government liabilities are lower as a result. Furthermore, existing analyses find government decision makers may alter actuarial inputs to reduce required pension contributions or reported liabilities (Barro 2012; Biggs 2009; Stalebrink 2012).<sup>4</sup>

Most state and local governments operate under balanced budget requirements, which vary in stringency. Nevertheless, Poterba (1994) argues that altering expenditures in one fiscal year to achieve a balanced budget merely reflects a timing issue; that is, an expenditure deferred in the current fiscal year is recognized instead in the next fiscal year. Chaney et al. (2002) note this is generally true, but not in the case of pension contributions—because deferred pension contributions are not recognized until paid in the future, and many governments do not make the full contribution to their pension plans annually (implying a long-term deferral of these costs).<sup>5</sup> Chaney et al. (2002) find that states defer pension contributions to achieve budget balance, implying

that tax revenues are insufficient to achieve economic budget balance. Pension underfunding is a form of debt financing, and Buchanan and Wagner (1977) extend fiscal illusion theory to argue that debt financing increases government spending, because immediate taxes are not required from the citizenry. As a result, decision makers perceive the costs of public employees' pension benefits as lower than they actually are, leading to increased public spending and employee benefits. Johnson (1997) finds that pension generosity increases as governments contribute less to pension funds currently than required, and Sneed and Sneed (1997) find underfunded pensions result in greater state government spending overall. Hence, the beneficiaries of this fiscal illusion are public employees and labor representatives.<sup>6</sup> Elected officials who support these expanded employee pensions may also benefit from campaign contributions from this key voter constituency.

In 2001, state and local pension plans were generally fully funded in the aggregate; that is, governments had assets in pension funds that equaled the accrued liabilities of workers and retirees. Importantly, this was not due to adequate pension funding by plan sponsors; rather, Giertz (2003) finds most chronic underfunding of liabilities disappeared because of strong equity returns that were in excess of actuarial assumptions during the 1990s. As investment gains slowed or turned to losses and employee benefits were enhanced,<sup>7</sup> these plans were approximately \$155 billion underfunded collectively by 2002 (see table 2), meaning liabilities exceeded assets.

Even in 2001, when the collective systems were fully funded, 55 percent of the individual pension plans reported an unfunded liability (called the "unfunded actuarially accrued liability," or UAAL), meaning these plans were not fully funded. Using a less stringent but arbitrary standard defining 80 percent funded as "healthy," only about 19 percent of pension plans were not healthy.<sup>8</sup> Therefore, public pension systems at the beginning of the century were relatively well funded, and even those not fully funded were not significantly underfunded on average. In 2002, the total UAAL of combined pension systems would have required only 6 percent of total spending to make up the accumulated shortfall to date. Table 2, however, shows that the combined UAAL has grown significantly since 2001, when pensions were fully funded collectively. The combined UAAL has grown more than 646 percent, and annual increases have averaged over 23 percent; further, it would now require nearly 35 percent of total state and local government spending (in 2014 dollars) to top off pension plans and return them to full funding. While this one-shot scenario is obviously unrealistic, it illustrates the increasing burden

**Table 2.** Size and Growth of Public Pension Unfunded Actuarially Accrued Liabilities (UAAL), 2002–2013

Year	Combined UAAL All Pension Plans (\$ thousands)	Annual Change (%)	Ratio of UAAL to Total Annual Expenditures (%)	Percentage of Plans with UAAL > \$0	Percentage of Plans Funded Less than 80%
2002	155,279,867		5.8	70	19
2003	348,670,957	124.5	12.5	81	27
2004	421,086,797	20.8	14.8	84	29
2005	482,442,028	14.6	16.8	89	37
2006	502,594,286	4.2	17.1	87	39
2007	482,966,924	-3.9	15.9	86	37
2008	562,968,616	16.6	18.0	89	45
2009	830,915,917	47.6	25.4	92	57
2010	958,643,138	15.4	28.3	94	62
2011	1,026,134,196	7.0	30.8	95	63
2012	1,123,906,722	9.5	34.6	97	69
2013	1,158,492,941	3.1	N/A	96	68
Change from 2002 to 2013	646.07%				
Annual change, 2002–2013	23.58%				

Sources: Center for Retirement Research at Boston College (2002–2013); and US Census Bureau (1993–2012).

Note: All data are inflation adjusted to 2014 levels using the Bureau of Labor Statistics Consumer Price Index All Urban Consumers (CPI-U) table. N/A = data are not yet publicly available.

that accumulated pension liabilities have on government operations and overall fiscal health (see the third column in table 2).

The funded ratio for all pension systems combined in 2012 was approximately 72 percent,<sup>9</sup> and the data in table 2 indicate a cumulative shortfall of more than \$1 trillion in assets to cover pension obligations. As pension costs consume an increasing amount of public budgets while unfunded liabilities continue to grow, calls for reforms have become more vocal.

Pension contributions are composed of two parts: (1) a portion for the present value of future benefits earned by current employees in the current fiscal year (which is known as the “normal cost”), and (2) a portion for the amortized part of the unfunded liability. As a result of this amortized part, the larger the unfunded actuarial accrued liability is, the larger becomes the required annual pension contribution. Efforts to improve the funded status of these pension trusts are aimed at reducing this amortized portion of the annual contribution

**Table 3.** Number of States Enacting Public Pension Reform Legislation by Type of Reform, 2012–2015

Year Enacted	Type of Reform Effort Enacted		
	Contribution Rates and Funding	Cost-of-Living Adjustments	Change to Plan
2012	12	4	21
2013	22	8	31
2014	36	9	34
2015	27	4	26

Source: National Conference of State Legislatures, "Pensions and Retirement State Legislation Database, 2012–2015."

either gradually and systematically over time or all at once, which reduces the required annual contribution to the pension fund.

As shown in table 3, some states have enacted changes in contribution rates and funding schedules over the past several years, usually increasing required contributions from employers. This action is arguably not even a reform and is simply a budgetary increase. Limiting cost of living adjustments is another way to control the growth in liabilities—especially since some beneficiaries have already retired and are receiving pension benefits. The “Change to Plan” category includes such efforts as creating new tiers of pension benefits that lower pension benefits for future employees, thereby lowering the normal cost associated with new hires.

Constitutional or statutory limitations exist in many states that prohibit changing pension benefits for current employees or retirees, so many reform efforts do not address accumulated unfunded pension liabilities at all (see Munnell and Quinby 2012). Most actions included under “Change to Plan” reforms fall into this category. Some states (e.g., Illinois and New York) have constitutional provisions that protect not just employee benefits at the time of hire (meaning that current employees cannot see their benefits reduced), but also future cost-of-living adjustments. Other states (e.g., California, Massachusetts, Pennsylvania, and Washington) have similar protections via state law. Hence, reform efforts like some of those outlined in table 3 may be unavailable to some governments without significant institutional changes, such as constitutional amendments. Some states (e.g., Michigan, Florida, and Virginia) only protect prior benefits and exclude future cost-of-living adjustments, so that reform efforts like those listed in table 3 can be used to limit the growth in unfunded pension liabilities.

## SELECTIVE TAXES, TAX INCREASES, AND PENSION FUNDING

As pension expenditures and unfunded liabilities continue to increase (even with periodic and limited reforms), some governments have turned to increased taxes and fees to fund these retirement benefits. Sometimes these taxes and fees are explicitly earmarked or tied to pension expenditures, at other times they are merely alluded to in legislation or referenda language. To date, the primary users of these select taxes and fees have largely been municipalities in Pennsylvania and Illinois. Both states are examined here as case studies, and both have strong protections for public pension benefits. However, municipalities in other states have begun exploring this option as well and are also discussed.

### Pennsylvania

Of the nearly 3,200 pension plans established for local government employees, more than 44 percent are in Pennsylvania alone.<sup>10</sup> In other words, pension management in Pennsylvania is largely a local government concern. In 1895, the state implemented a 2 percent tax on foreign (that is, out-of-state) fire and casualty insurance companies' premiums on in-state property and earmarked this revenue for distribution to local governments to pay for pensions. The law's stated goal was to provide fiscal relief for municipalities' paid and volunteer fire departments by distributing tax revenue collected by the state to the political subdivisions in which the insured property was located. The 2 percent tax on all fire and casualty insurance gross premiums for personal and business property sold in the state by corporations incorporated in a state other than Pennsylvania is not unique to Pennsylvania. Most states tax insurance premiums of out-of-state insurers (Casey and Conlin 2009), but Pennsylvania explicitly dedicates this tax to municipal pension benefits. Other states, such as Colorado, Florida, Idaho, Illinois, Oklahoma, and Washington, similarly dedicate some or all insurance premium taxes to fire or police pension funds (Civic Federation 2007). What makes Pennsylvania unique, however, is that the state funds are then distributed to municipal pension systems.

Public pensions became a public policy concern in the 1970s, when what was then called the US General Accounting Office (1979) estimated that public pension systems were only about 50 percent funded. In 1984, Pennsylvania Act 205 was implemented, which required municipalities to make pension contributions on a schedule that would address any underfunding in 30 years. Municipalities that were found to be distressed could extend this to a 40-year



schedule. The 1984 Act also replaced the original act of 1895 in which the state of Pennsylvania allocated pension aid based on where the insured property was located; instead the new allocation was essentially based on the number of public employees in a locality. Each public employee was considered a “unit,” and uniformed employees (such as police and fire) each represented two units. The pool of insurance tax revenue collected by the state was then divided by the sum of municipal units to arrive at a unit value. This distribution could subsidize local governments’ pension expenditures up to 100 percent of the annual cost. In 1985, this tax generated \$62.3 million in revenues; as a result, each unit value was worth \$1,146—meaning that local governments received \$1,146 for pension funding for each public employee and an additional \$1,146 for pension funding for each uniformed public employee. Importantly, 75 percent of municipalities received enough funding from this revenue in 1985 to fully offset their pension costs.

This dedicated revenue stream from the state led some local government decision makers to increase pension benefits. For example, if a municipality had to contribute less than the \$1,146 annually for a regular employee or \$2,292 for a uniformed employee, the municipality was effectively incentivized to increase benefits to public employees up to this limit, because local public employees would receive increased benefits at no direct budgetary cost to the municipality. Perhaps more correctly, the tax likely increased insurance costs for residents and businesses (and then only a small fraction of the cost), but not directly for the government employer. Further, this system privileged pension benefits relative to other compensation, because these payments (borne at least statutorily by out-of-state companies) could only be used for financing pensions and not other forms of compensation. Overall, then, an attempt to support pension costs statewide led to a system that encouraged increased benefits.

By the late 1980s, nearly all municipalities in Pennsylvania had their pension costs fully covered by this dedicated state tax, with fairly significant increases in subsidies per employee. By 1989, for example, 96 percent of municipalities received money from the state to fully cover their annual pension costs, even as the value per unit had increased from \$1,146 to \$3,269—a nominal increase of more than 185 percent and a real increase of nearly 150 percent in just 5 years. By 2014, each unit value had increased to \$3,873 as tax revenues to the state had increased to \$248.3 million. Despite increased subsidies, only 38 percent of municipalities received enough allocation from the pool to offset the full costs of pensions. The subsidy from the state insurance tax was growing,

but not as fast as annual pension contributions. Municipalities needed even more revenues or less spending to compensate.

Because of the significant fiscal stress governments experienced following the Great Recession, Act 44 became law and provided plan sponsors pension funding relief, largely by allowing sponsors to alter actuarial assumptions and thereby reduce required pension contributions. Hence, state law further encouraged pension benefit growth, which contributed to fiscal stress for plan sponsors. Subsequently, a new law was implemented that provided pension funding relief to distressed municipalities. This relief, however, merely delayed funding (primarily by manipulating how the required contribution was calculated) rather than providing any permanent fix, such as reforming the structure of the pension plan or the level of benefits provided to current or future employees.

As part of Act 205 of 1984, pension plans had to report to the state on their funded status. Plans with funded ratios at or above 90 percent did not need to implement any changes. For those plans below this 90 percent threshold, sponsors had to implement voluntary and mandatory remedies (depending on the funded status reported) that were nominally designed to improve the funded status of the plan. Many municipalities in Pennsylvania had pension systems that were below the 90 percent threshold and therefore, required remedies; many chose to impose selective taxes to address pension shortfalls as voluntary remedies. The history of municipal pension funding in Pennsylvania can thus be summarized as follows:

- Implementation of a public financing system that encourages pension benefit growth by financing local pensions with a state tax;
- Passage of additional laws requiring certain pension funding levels;
- Passage of even more laws that provide temporary pension funding relief when unsubsidized expenditures are deemed too costly, which further grew liabilities for distressed municipalities (because the relief is just a deferral); and
- Passage of additional regulation that requires remedies when pension systems are underfunded significantly, largely as a result from prior years' deferrals brought about by prior legislation.

To further illustrate, the city of York has three major pension plans: one for fire fighters, another for police officers, and a third for nonuniformed city workers. As of 2012, the fire fighter pension system was 58 percent funded, the police system was 53 percent funded, and the nonuniformed system was

76 percent funded.<sup>11</sup> In 2014, the city passed a 0.25 percent “Public Safety Pension Tax” on income earned in York as one of its voluntary remedies to address the poor funding of its pension systems. Although the new tax was frequently referred to as a commuter tax, city residents were also taxed. However, it is noteworthy that the city did initially seek to tax only the incomes of workers who commuted to the city. The new money was expected to cover the city’s increased pension contributions.

Similarly, Scranton manages three pension systems defined as severely distressed. In 2012, its fire fighters pension plan was 17 percent funded, the police system was 29 percent funded, and the nonuniformed system had only 23 percent of assets compared to liabilities. To begin addressing these shortfalls as part of its voluntary remedies, Scranton passed a 0.75 percent tax on commuters’ earned income in the city; however, a judge blocked the new tax, because it exempted residents. As a result, Scranton passed a local services tax in 2015 on both commuters and residents.

By 2012, Philadelphia also had severely distressed pension plans. The fire fighter pension plan was only 45 percent funded, the police plan was 49 percent funded, and the nonuniformed pension plan was 47 percent funded. Facing chronic budgetary problems, the city council passed a temporary 1 percentage point sales tax increase in 2009; when the temporary rate was renewed in 2014, any revenue in excess of \$120 million was dedicated to the city’s pension plans (Coen 2014). The state permitted the city to pass a \$2 per pack cigarette tax to fund a planned budget deficit for the school system. Much of the system’s increased costs were caused by rapidly increasing mandatory pension contributions (Costrell and Maloney 2013).

Whereas York and Scranton used income taxes to fund pensions and also expand their tax bases beyond city limits, Philadelphia already had a high income tax for both residents (3.924 percent in fiscal year 2014) as well as commuters (3.495 percent in fiscal year 2014).<sup>12</sup> Philadelphia likely turned to cigarette taxes because its income tax capacity was largely exhausted.

In addition to these municipal examples, many school districts in Pennsylvania increased property taxes as a voluntary measure specifically to fund increased teacher pension costs. Pennsylvania law (Act 1) caps annual property tax increases, and districts must seek rates higher than these caps through voter referenda.<sup>13</sup> However, Act 1 explicitly permits districts to file for exemptions from the referendum requirement because of costs resulting from special education, debt, and pensions. In fiscal year 2015, 164 school districts (out of nearly 500 statewide districts) applied for exemptions from the state Department of Education, and 163 cited pension contributions as

**Table 4.** School District Referendum Exceptions from Pension Obligations, Pennsylvania, 2007–2015

Fiscal Year	Statewide SDs Requesting Exemptions	SDs Requesting Exemptions because of Pension Obligations	Percentage of Exemptions because of Pension Obligations	Percentage of Statewide SDs Requesting Exemptions because of Pension Obligations	Percentage of Approved Expenditures Over Limits
2007–2008	210	188	89.5	37.6	6.9
2008–2009	102	27	26.5	5.4	3.6
2009–2010	61	6	9.8	1.2	0.5
2010–2011	133	128	96.2	25.6	32.4
2011–2012	228	221	96.9	44.2	29.3
2012–2013	197	194	98.5	38.8	49.3
2013–2014	171	169	98.8	33.8	68.5
2014–2015	164	163	99.4	32.6	61.2

Source: Pennsylvania Department of Education. "Report on Referendum Exceptions," various years. <http://www.education.pa.gov/Teachers%20-%20Administrators/Property%20Tax%20Relief/Pages/Referendum-Exceptions.aspx>.

the reason for the exemption request.<sup>14</sup> In other words, nearly one-third of Pennsylvania school districts chose to increase property tax rates in excess of statutory limits as a result of pension costs. As shown in table 4, these exemptions brought about from pension obligations remain a significant cause of exemptions from property tax limits, and the amount of expenditures financed by these exemptions has grown significantly over the past few years. Pension obligations remain a significant financial hurdle for Pennsylvania school districts despite the state-dedicated revenue for local pension systems.

One major hurdle for reforming public pension costs in Pennsylvania is that the courts have rejected reform efforts as impairments to existing contracts. The protection extends to past accruals (i.e., benefits earned to date) but also to future adjustments as well (so that even altering cost-of-living adjustments may not be possible; see Munnell and Quinby 2012). Absent major structural changes from elected officials to alter these protections—at great political cost to themselves—reforms that might actually shrink liabilities are not realistic options.

## Illinois

Chicago participates in six pension plans for its employees, and all plans are generally less than one-half funded (i.e., the funded ratio is less than 50 percent

for all plans). As of 2012, Chicago's pension UAAL reached nearly \$27 billion, and the city (or related agencies) contributed nearly \$700 million to the funds,<sup>15</sup> compared to total governmental fund expenditures of less than \$7 billion (City of Chicago 2012). Chicago's pension systems were so poorly funded that the state required the city to make mandated payments to reduce the UAALs. Wanting to avoid a property tax increase in 2014 (an election year), Chicago policymakers chose instead to pass a tax increase on telephones, increasing the 911 tax from \$2.50 per telephone per month to \$3.90. Although the revenue from the tax was earmarked for 911 services, the goal of the tax increase was to fully fund the emergency service from this monthly fee and not require additional public subsidy, thereby freeing up millions of dollars for pension payments. This tax increase was simply an expedient, as the mayor and city council increased the property tax rate one year later in 2015 (Peters 2015). Increasing pension funding to begin paying down the UAALs of the police and fire pension systems was an explicit reason given for the property tax increase, estimated to be \$550 million annually (Dardick and Ruthhart 2015). In addition, the mayor also proposed a garbage fee for homeowners to free up additional public dollars for pensions.

Cook County (where Chicago is located) itself increased the county portion of the sales tax in 2015 from 0.75 percent to 1.75 percent to fund its own public pensions. By 2014, the county faced a pension system only about one-half funded and annual pension costs that were growing rapidly. For example, in 2014, the annual pension contribution was approximately \$200 million and was expected to increase to \$350 million by 2016. In raising the tax rate, the combined sales tax rate in the area became the nation's highest for a major city at 10.25 percent, effective 2016 (Dardick 2015).

Selective taxation for pension funding is not limited to the Chicago area in Illinois. The municipality of Normal, IL, saw its pension costs growing significantly for its three pension funds. The UAALs for these systems had reached nearly \$50 million by 2015, compared to annual budgeted expenditures of just over \$57 million.<sup>16</sup> To begin paying down this UAAL, the city increased garbage collection fees on residents and imposed a new 4¢ per gallon gasoline tax (VanMetre 2015). In 2014, Peoria, IL, increased water and natural gas utility taxes and doubled its garbage fees on residents to address its growing pension problem. The city's pension systems were all funded below 63 percent in 2012 (Dabrowski et al. 2014).

In Illinois, municipalities may sponsor their own pension systems—650 such systems are managed through the Illinois Municipal Retirement Fund (IMRF)—but the state legislature sets municipal pension laws that outline cost of living adjustments, benefit formulas, retirement ages, and so forth (Illinois

Municipal Retirement Fund 2014, 25). Therefore, the costs of municipal pension systems are determined separately from the taxpayers in jurisdictions who ultimately must pay for these costs. This decoupling of costs and financing has left much of the state's governments managing pension payments that eat up increasing shares of public budgets with no direct mechanisms to reduce the costs. Recently, the Illinois Supreme Court affirmed that the retirement benefits offered a government employee on his or her first day of employment can never be reduced,<sup>17</sup> so that reform efforts are necessarily limited to changing benefits for future workers only. Governments cannot directly change the pension liabilities accrued to date, which also increase current required pension contributions from these governments. Most importantly perhaps, government employers in the IMRF are required by state statute to pay their full contribution. If full payment is not made, the IMRF can sue the government and have state funds diverted to pay for the pension contribution (Peng and Boivie 2011). As a result, an increasing number of participating governments are turning to new or additional revenue sources as the only option available to them.

The state of Illinois itself adopted a tax in part to pay for its own pension contributions. In 2011, Illinois passed a temporary income tax increase to pay down its accumulated unpaid bills, which explicitly included unpaid pension contributions. The state is currently looking to extend this temporary measure. Importantly, this measure was not intended to reduce the state's UAALs with its pension systems (i.e., begin paying off the accumulated debt from the past). Instead this tax increase was simply meant to help the state meet the normal cost of its pension obligations.<sup>18</sup>

### **Other Municipalities**

Although the examples of municipalities selectively imposing or increasing taxes and fees to fund pensions largely have been drawn from two states, recent activity suggests this municipal finance technique is spreading. Charleston, WV, increased its sales tax rate from 0.5 percentage points to 1 percentage point (which is levied in addition to the state rate of 6 percent), with the proceeds placed in a reserve account dedicated to pensions.<sup>19</sup> Elected officials opted for this increased sales tax rate to begin addressing its woefully underfunded pension system, which was only 24 percent funded in 2014 (Pew Charitable Trusts 2013).

Facing a \$200 million UAAL and a 36 percent funded ratio, voters in Springfield, MO, passed a sales tax increase of 0.75 percentage points in 2009 to fund police and fire pensions. The original referendum was intended to sun-

set after 5 years (to counter taxpayer concerns that this tax increase was permanent). In 2014, the voters reauthorized the increased sales tax rate, and the funded ratio had reportedly improved to 67 percent since the 2009 initiative.<sup>20</sup>

In August 2015, the city of Prescott, AZ, presented city voters a ballot initiative to adopt an additional 0.55 percentage point sales tax rate for 20 years with the revenue restricted to paying the UAAL of the Arizona Public Safety Personnel Retirement Systems (estimated to be approximately \$70 million, or about 50 percent funded). The voters rejected the ballot measure, with most opponents arguing that the additional revenue—absent any significant reforms to the benefits in place for current or future workers—would not improve the situation and solve the fiscal problems caused by the unfunded pension liabilities.

### **WHAT DOES THE FUTURE HOLD FOR SELECTIVE TAXES AND PENSION FUNDING?**

The use of selective taxes to specifically fund pensions is fairly limited at this time. Nevertheless, we can find some basic similarities among these various cases. Most obviously, the governments or voters who have approved selective taxes are the ones with significantly below average funding for their pension plans (the average pension system is 72 percent funded). In some extreme cases, the pension systems are predicted to run out of money to pay benefits in only a few years. Of course, a natural question for future empirical research is whether this poor funding resulted in the adoption of selective and dedicated taxes, or whether these taxes led to reduced funding of pensions.

Most governments using selective taxes also have been either unable or unwilling to implement pension reforms that would require employees to fund more of their own pension benefits or reduce current and future retirees' benefits. In many cases, state statutes or constitutions prevent localities from changing future benefits. Therefore, if pension reform efforts fail (as they have in Illinois) or are avoided, it seems probable that governments will seek additional revenues to fund growing pension expenditures. Because most municipalities face balanced budget requirements, these increased pension expenditures necessarily require increased revenues, reductions in other non-pension expenditures, or some combination of both. In fiscal year 2015, no state reported using cuts to state employee benefits as a strategy for managing its budget, and only two states reported this as a strategy for fiscal year 2016 (NASBO 2015). Instead, targeted spending cuts (twenty-six states in 2015 and twenty-four in 2016)—reductions in other public spending—and increased

sales and other consumption tax rates (e.g., on alcohol and tobacco; twelve states in 2016) are currently the preferred budget strategies rather than reducing pension costs. Debt issuances can fill budget gaps temporarily, and several hundred local governments have issued pension obligation bonds nationally,<sup>21</sup> but it is neither fiscally sustainable nor justifiable to issue debt to balance operating budgets.

Additional revenues, though, will not improve pension funding if this new revenue simply replaces the funding already in place. If a government replaces general fund revenue with a dedicated sales tax for pensions, for example, the unfunded liability is unlikely to improve: the new revenue stream simply replaces another instead of augmenting the flow of funds to the pension system. Ultimately, unless these selective taxes are not used to substitute for current funding streams, these new taxes are unlikely to improve the fiscal health of pension systems. They will, however, permit public decision makers to claim they are addressing the fiscal problems associated with unfunded pension liabilities.

Many states do not tax the pension income received by retirees. Ten states fully exclude pension income from their income tax base, and an additional eleven states partially exempt pension income.<sup>22</sup> Perhaps unsurprisingly, all the examples in this chapter come from states that fall into the full or partial exclusion states. Notably, both Illinois and Pennsylvania completely exclude pension income from their income tax bases. The tax base is reduced for the benefit of retirees, and selective income tax increases effectively shift the burden to current workers. In the case of increasing sales tax rates or increasing user fees, the reduced tax base for beneficiaries is paid for by expanding other tax bases or increasing rates on existing bases. Currently, Illinois is considering a sales tax on services to help fund its pensions (Galland 2015), and Pennsylvania is considering increasing fishing license fees for more pension funding (Staub 2015).

Governments with tax bases that are smaller because of other policy or political goals are more likely to turn to selective taxes to fund pensions compared to those with broader tax bases with fewer exclusions, even though the same amount of revenue must be raised, all else being equal. These narrower tax bases not only reduce income taxes owed to these states for public expenditures but also may lead to other distortionary behavior. For example, public employees may prefer larger pension benefits rather than more current income, because the benefits are not taxed when they are earned while working nor taxed as income when received in retirement.



The selective taxes used to fund unfunded pension liabilities are not limited to one particular type of tax. Consumption and income taxes do seem particularly attractive for these purposes, perhaps because the mechanics are simple—simply adjust an existing tax rate upward. The transaction costs of the selective tax are thus minimized. In addition, because of progressive income taxation systems, income tax increases can be sold as tax increases on higher income taxpayers. And as mentioned, new fees or increases in existing fees may be implemented. These revenue sources may be popular with municipalities because they may have more ability to impose or raise fee rates than taxes due to home rule limits in some states.<sup>23</sup>

Most of the examples in this chapter are of governments that sponsor their own pension plans. Many governments, however, do not; many belong instead to cost-sharing pension systems in which employees of all participating governments are aggregated into a common pool.<sup>24</sup> Governments participating in cost-sharing plans are generally legally required to fully fund their annual pension contributions (Ives et al. 2009), because governments otherwise could effectively be financing other governments' pension obligations to workers. Therefore, cost-sharing systems try to minimize the free riding of one government on other plan participants. Local government participants in cost-sharing plans have “no control over actuarial or funding decisions” (Fitch Ratings 2011). For example, CalPERS requires 90 percent of the member contributions during the fiscal year or it assesses interest costs on the unpaid portion at the actuarial interest rate (currently 7.5 percent; see CalPERS 2015); any amount not paid within 30 days of the fiscal year end is also assessed interest costs.<sup>25</sup> The city of Stockton, CA, chose to borrow money in 2007 rather than not pay its CalPERS contributions, because the cost of borrowing (5.81 percent) was lower than the cost of deferring its payment to CalPERS (7.75 percent at the time; Long 2012). In New York State, participating governments are required under state law to contribute to the New York State and Local Employee Retirement System and the New York State and Local Police and Fire Retirement System, or else accrue interest at the applicable interest rate for that year as set by statute.<sup>26</sup> Governments participating in these cost-sharing pension plans may thus be more likely in the future to impose selective taxes to make growing pension contributions because they are not only unable to alter benefits to current employees because of constitutional and statutory limits, but also because they cannot defer contributions to these cost-sharing systems without incurring significant penalties and costs. In other words, deferring pension contributions in these cost-sharing arrangements

is not a budget strategy. Further reform efforts for these pension systems will require the political efforts of elected state officials as well as pension fund board members.

Furthermore, multi-employer public pension systems generally set benefits for employees, but government employers must pay for these benefits. These multi-employer public pension systems are common. Hence, many governments belong to pension systems in which the benefit cost and funding decisions reside in two separate bodies. This decoupling of pension benefits and the resources needed to fund them suggests that government employers may find selective taxation increasingly appealing to meet pension obligations they have little direct control over.

Finally, even extreme fiscal distress or bankruptcy may not be enough to reduce pension costs. CalPERS, for example, threatened to sue San Bernardino for missing pension payments after the city formally entered Chapter 9 bankruptcy in 2012 (Reid 2012); when Stockton sought bankruptcy protection in 2012, CalPERS argued (and a federal judge ultimately agreed) that pension costs still needed to be paid by the city (Hecht 2013).

#### **OTHER ISSUES TO WATCH THAT ARE RELATED TO ADDITIONAL SELECTIVE TAXATION**

A growing number of jurisdictions has used selective taxes and fees as an attempt to improve the funding of their public pension plans without reforming their systems or to avoid budget cuts in other public spending priorities. Governments in the United States have other large unfunded liabilities as well, such as retiree health insurance benefits (colloquially referred to as “other postemployment benefits,” or OPEB). Because many public employees can retire before they are eligible for Medicare, many governments offer retirees health insurance benefits. When individuals become Medicare eligible, they pay a monthly premium for health insurance coverage (for example, in 2015, most Medicare recipients paid between \$105 and \$210 monthly for insurance coverage, depending on income).<sup>27</sup> As part of OPEB benefits for public retirees, some governments also reimburse retirees for their out-of-pocket Medicare medical insurance premiums (referred to as “Medicare Part B premiums”).

Importantly, while most governments have prefunded pensions for decades (although perhaps insufficiently), OPEB liabilities were not even recorded in government financial statements until 2007, and governments have largely funded these retiree benefits on a pay-as-you-go basis (i.e., they are not

prefunded). The sizes of these liabilities are very large. For example, New York City recognized its entire OPEB liability in 2007, reporting a \$57.8 billion liability on its government-wide statement of net position (City of New York 2007, 38). By way of comparison, the city's bonds and notes payable in 2007 totaled \$56.2 billion (City of New York 2007). Nationally, state governments alone have outstanding OPEB liabilities of nearly \$600 billion. While state governments have accumulated more than \$700 billion in assets to pay for pension benefits for current and future retirees, they have only accumulated approximately \$35 billion in assets for OPEB benefits, implying a funded ratio of just 6 percent nationally (Pew Center on the States 2011). Table 5 compares pension and OPEB obligations of state governments, and clearly demonstrates the lack of funding OPEB obligations have received. OPEB liabilities are still being amortized onto balance sheets, so these obligations are still underreported. Further, the data only report state obligations and not local obligations. OPEB obligations tend to be focused at the local government level rather than the state level because police, fire, and teachers—who have earned the bulk of accumulated OPEB benefits—tend to be local government employees.

In 2010, state governments paid more than \$17 billion for OPEB, even though actuaries estimated the annual cost at nearly \$51 billion (Pew Center on the States 2012), indicating that governments were deferring nearly two-thirds of annual OPEB cost to the future. If actual OPEB spending begins to increase, governments could face the same situation as they do with pensions: spending on current programs is crowded out by spending on unfunded liabilities incurred for past programs. In Minnesota, some local governments even issued OPEB obligation bonds in an attempt to manage this fiscal stress. This increase in budgetary pressure could lead to selective taxation efforts in some jurisdictions to pay for OPEB obligations, and the unfunded gap for these liabilities are far worse than for pensions. OPEB liabilities are potentially more open to reform efforts compared to pensions. Although many states have constitutional or statutory protections for pensions, OPEB protections are more ambiguous (for more details, see Peng 2008, chapter 8).

In addition to potential pressures from OPEB liabilities, the Governmental Accounting Standards Board (GASB) changed financial reporting standards for public pension plans, effective 2013 (GASB 2012). Prior to this change, pension liabilities and funding were found in the notes to the financial statements. Now governments must report their net pension liabilities (i.e., the difference between total assets) and total liabilities on the balance sheets of their government-wide financial statements. Because these unfunded pension liabilities are now more visible (because they are now reported directly

**Table 5.** Comparison of State Pension to Retiree Health Insurance Obligations, Fiscal Year 2012

State	Unfunded Pension Obligations (\$ thousands)	Unfunded Retiree Health Obligations (\$ thousands)	Per Capita Pension Unfunded Obligation (\$)	Per Capita OPEB		Funded Ratio: Pensions (%)	Funded Ratio: OPEB (%)
				Unfunded Obligations (\$)	Obligations (\$)		
Alabama	14,379,973	11,116,162	2,982	2,305	66	9	
Alaska	8,190,013	7,924,700	11,197	10,834	55	47	
Arizona	14,374,813	737,480	2,194	113	72	68	
Arkansas	7,509,607	2,150,165	2,546	729	71	0	
California	131,318,184	79,392,286	3,452	2,087	77	0	
Colorado	22,711,123	1,944,182	4,378	375	63	13	
Connecticut	24,545,994	20,953,000	6,837	5,836	49	0	
Delaware	1,037,497	5,642,000	1,131	6,152	88	3	
Florida	28,955,936	6,782,210	1,499	351	82	0	
Georgia	16,775,839	18,238,921	1,691	1,839	81	5	
Hawaii	8,440,900	13,566,837	6,063	9,744	59	0	
Idaho	2,077,557	124,788	1,302	78	85	15	
Illinois	94,581,645	54,221,394	7,346	4,211	40	0	
Indiana	16,354,957	314,737	2,502	48	61	18	
Iowa	6,156,310	648,233	2,003	211	80	0	
Kansas	10,252,933	532,115	3,553	184	56	3	
Kentucky	21,355,447	6,182,103	4,875	1,411	47	19	
Louisiana	19,305,848	8,543,177	4,195	1,856	56	0	
Maine	2,935,200	1,975,942	2,208	1,487	79	4	
Maryland	20,867,630	9,898,976	3,546	1,682	64	2	
Massachusetts	28,104,234	15,377,400	4,229	2,314	61	3	
Michigan	31,159,292	23,564,300	3,153	2,384	61	7	
Minnesota	15,608,624	1,029,771	2,902	191	75	0	
Mississippi	14,860,423	664,738	4,978	223	58	0	

Missouri	12,522,783	3,282,845	2,080	545	78	4
Montana	4,302,807	447,105	4,281	445	64	0
Nebraska	2,426,073	N/A	1,307	N/A	79	N/A
Nevada	11,236,871	1,181,488	4,073	428	71	0
New Hampshire	4,573,477	2,585,155	3,463	1,957	56	1
New Jersey	47,209,474	63,880,700	5,326	7,206	65	0
New Mexico	12,489,369	3,687,626	5,989	1,768	63	6
New York	21,457,000	73,103,000	1,096	3,735	87	0
North Carolina	3,880,079	23,187,804	398	2,378	95	5
North Dakota	2,014,300	124,873	2,879	178	63	32
Ohio	63,143,558	8,433,170	5,470	731	67	65
Oklahoma	11,602,379	4,457	3,041	1	65	0
Oregon	5,621,100	390,800	1,442	100	91	43
Pennsylvania	47,286,100	17,535,850	3,705	1,374	64	1
Rhode Island	4,521,245	858,737	4,305	818	58	2
South Carolina	15,646,868	9,724,138	3,312	2,059	65	6
South Dakota	638,207	67,774	766	81	93	0
Tennessee	3,388,550	1,623,943	525	252	92	0
Texas	31,636,460	55,435,898	1,214	2,127	82	1
Utah	6,569,173	270,711	2,301	95	76	37
Vermont	1,418,457	1,825,584	2,266	2,916	70	1
Virginia	28,138,000	5,358,000	3,437	655	65	18
Washington	3,256,200	7,381,134	472	1,070	95	0
West Virginia	6,020,234	3,369,165	3,245	1,816	63	12
Wisconsin	69,700	1,210,176	12	211	100	47
Wyoming	1,691,194	243,197	2,934	422	80	0
National	914,653,163	576,738,947	2,920	1,841	72	6

Source: Data are from Pew Center on the States, "Size of Long-Term Obligations Varies across States," August 19, 2014, available at <http://www.pewtrusts.org/en/research-and-analysis/analysis/2014/08/size-of-long-term-obligations-varies-across-states>.

Note: OPEB = other postemployment benefits.

in financial statements instead of in notes only), governments may feel more pressure from creditors or bond raters to increase funding for their liabilities and reduce net pension liabilities. If so, more governments may increasingly turn to selective taxes as one potential tool to reduce these liabilities and manage their balance sheets.

## CONCLUSION

The use of selective taxes and fees to fund pensions is still rather rare. However, as pension and OPEB costs continue to place stress on many public budgets, public decision makers may increasingly turn to these taxes and fees to help manage growing unfunded liabilities. This chapter draws on the experiences in Pennsylvania and Illinois to examine how these taxes have operated where used, how the decoupling of setting and financing employee benefits tends to lead to these taxes, and how the use of these taxes is associated with significantly underfunded pension systems. As government financial reporting standards increase the visibility of unfunded pension liabilities in the future, state and local governments may increasingly turn to selective taxes for sources of pension funding rather than renegotiating and making employee benefits less expensive.

## NOTES

1. Data and calculations derived from table 1: “State and Local Government Finances by Level of Government and by State: 2012–2013” (US Census Bureau 2013). [https://www.census.gov/govs/local/historical\\_data\\_2013.html](https://www.census.gov/govs/local/historical_data_2013.html).
2. All data in this discussion are derived from table 1.
3. As of 2013, public-sector pension plans used an average discount rate of 7.7 percent based on expected investment returns, while private-sector single-employer plans use a lower rate (between 1.3 percent and nearly 6.8 percent, depending on funding levels) based on high-quality bond yields. See US Government Accountability Office (2014).
4. Barro (2012) notes that some governments increased pension amortizations following 2008 to reduce pension contributions, and Stalebrink (2012) finds empirical support that political considerations lead to higher discount rates—which reduce required pension contributions. Biggs (2009) details how actuaries are pressured by public officials to use specific actuarial assumptions that reduce required pension contributions.
5. Governmental Accounting Standards Board (GASB) standards recognize a pension expenditure in the governmental funds financial statements only when the amount is actually contributed to the pension fund, not when it is legally owed. See chap. 10 of Granof et al. (2015).
6. In the public sector, 39 percent of all workers are represented by a labor union, compared to 7 percent in the private sector. Bureau of Labor Statistics (2017).
7. As an example, in 1999, the California Public Employees Retirement System (CalPERS) proposed and the state legislature passed a bill that (1) allowed workers hired since 1991, who were in a less expensive pension tier, to be moved into the more expensive older tier; (2) reduced retirement ages; and (3) increased benefits for uniformed members. In 2001, elected

leaders passed a law allowing local government employees not in CalPERS to bargain for similar benefits. See Malanga (2013).

8. The discussion in this section is derived from the data in table 2.
9. From Pew (2014).
10. Based on US Census Bureau (2014).
11. All funded ratios in this section are from Pennsylvania Public Employee Retirement Commission, Commission of Pennsylvania (2014).
12. Rates are from “Summary Schedule of Tax Rates since 1952, City and School District of Philadelphia,” <http://www.phila.gov/Revenue/Documents/Tax%20Summary%20Schedule%20rev%207.1.pdf>, and reflect when the cigarette tax was initially proposed. Rates were slightly lower in fiscal year 2015, when the cigarette tax was approved and implemented.
13. See “Taxpayer Relief Act, Special Session Act 1 of 2006, Frequently Asked Questions for Taxpayers,” <http://www.education.pa.gov/Documents/Teachers-Administrators/Property%20Tax%20Relief/Frequently%20Asked%20Questions%20for%20Taxpayers.pdf>.
14. See “Taxpayer Relief Act, Special Session Act 1 of 2006, Report on Referendum Exceptions for School Year 2013–2014,” <http://www.education.pa.gov/Documents/Teachers-Administrators/Property%20Tax%20Relief/2014-15%20Report%20on%20Referendum%20Exceptions.pdf>.
15. See “Just the Facts: Answers to Frequent City Pension Questions,” [http://www.cityofchicago.org/city/en/depts/mayor/iframe/just\\_the\\_facts.html](http://www.cityofchicago.org/city/en/depts/mayor/iframe/just_the_facts.html).
16. Town of Normal, IL. 2015, “Comprehensive Annual Financial Report for the Fiscal Year April 1, 2014 to March 31, 2015,” <https://www.normal.org/DocumentCenter/View/6661>.
17. See Rickert (2015) and also Munnell and Quinby (2012). The IMRF is a multi-agent employer pension system in which each participating government employer maintains its own accounts for assets and liabilities. The plan provides administrative and investment services, and, in the case of the IMRF, the state limits the benefit offerings available and potential changes to these offerings. The same holds true for CalPERS (see CalPERS 2015, primary benefits offered).
18. The Taxpayer Accountability and Budget Stabilization Act (P. A. 96-1496).
19. See <http://www.tristateupdate.com/story/27262324/sales-tax-increase-approved-by-the-city-of-charleston-west-virginia> and <http://www.taxrates.com/blog/2015/05/01/west-virginia-sales-tax-changes-july-2015/>.
20. See [https://ballotpedia.org/Voters\\_in\\_Springfield,\\_Missouri\\_renew\\_sales\\_tax\\_to\\_support\\_old\\_pension\\_fund](https://ballotpedia.org/Voters_in_Springfield,_Missouri_renew_sales_tax_to_support_old_pension_fund).
21. More than 90 percent of all pension obligation bond issuers are cities, counties, towns, or school districts. See Calabrese and Ely (2013).
22. Information derived from the National Conference of State Legislatures (2015).
23. “Home rule” refers to the legislative authority granted to local governments by states. This authority varies by state, so that municipalities in different states have different abilities to impose or increase taxes.
24. Nearly 70 percent of pension plans in the CRR Pension Plan Database, one of the only detailed national databases of state and local pension plans, are cost-sharing systems.
25. From the CalPERS Payroll Reporting Procedures, <http://d3n8a8pro7vhmx.cloudfront.net/friendsoftorance/pages/14/attachments/original/1376189442/pasrg-payroll-reporting.pdf?1376189442>, p. 95.
26. See New York State and Local Retirement System Comprehensive Annual Financial Report (2015), [https://www.osc.state.ny.us/retire/word\\_and\\_pdf\\_documents/publications/cafr/cafr\\_15.pdf](https://www.osc.state.ny.us/retire/word_and_pdf_documents/publications/cafr/cafr_15.pdf), p. 46.

27. See <https://www.medicare.gov/your-medicare-costs/costs-at-a-glance/costs-at-a-glance.html#collapse-4809>.

## REFERENCES

- Barro, Josh. 2012. "How Congress Can Help State Pension Reform." *National Affairs*. <http://www.nationalaffairs.com/publications/detail/how-congress-can-help-state-pension-reform>.
- Biggs, Andrew G. 2009. "Public Pensions Cook the Books: Some Plans Want to Hide the Truth from Taxpayers." *Wall Street Journal*, July 6, A13.
- Buchanan, James M., and Richard E. Wagner. 1977. *Democracy in Deficit: The Political Legacy of Lord Keynes*. Indianapolis, IN: Liberty Fund.
- Bureau of Labor Statistics. 2015. *National Compensation Survey, Retirement Benefits: Access, Participation, and Take-Up Rates*. Washington, DC.
- . 2017. "Table 3: Union Affiliation of Employed Wage and Salary Workers by Occupation and Industry." <http://www.bls.gov/news.release/union2.t03.htm>.
- Calabrese, Thad D., and Todd L. Ely. 2013. "Pension Obligation Bonds and Government Spending." *Public Budgeting and Finance* 33 (4): 43–65.
- CalPERS (California Public Employees Retirement System). 2015. *Comprehensive Annual Financial Report, 2014–2015*. <https://www.calpers.ca.gov/docs/forms-publications/cafr-2015.pdf>.
- Casey, B. T., and R. D. Conlin. 2009. "State Insurance Premium and Other Insurance Taxes." In *New Appleman on Insurance Law Library Volume 2*, edited by Jeffrey E. Thomas and Nathaniel S. Shapo. New Providence, NJ: LexisNexis.
- Center for Retirement Research at Boston College. 2002–2012. *Public Plans Data*. <http://crr.bc.edu/data/public-plans-database/>.
- Chaney, Barbara A., Paul A. Copley, and Mary S. Stone. 2002. "The Effect of Fiscal Stress and Balanced Budget Requirements on the Funding and Measurement of State Pension Obligations." *Journal of Accounting and Public Policy* 21: 287–313.
- City of Chicago. 2012. *Comprehensive Annual Financial Report for Fiscal Year 2012*. [https://www.cityofchicago.org/city/en/depts/fin/supp\\_info/comprehensive\\_annualfinancialstatements/2012\\_financial\\_statements.html](https://www.cityofchicago.org/city/en/depts/fin/supp_info/comprehensive_annualfinancialstatements/2012_financial_statements.html).
- City of New York. 2007. *Comprehensive Annual Financial Report of the Comptroller for the Fiscal Year Ended June 30, 2007*. <https://comptroller.nyc.gov/wp-content/uploads/documents/cafr2007.pdf>.
- Civic Federation. 2007. "Dedicated Revenue Sources for State Pension Funds." <http://www.nasra.org/files/Topical%20Reports/Funding%20Policies/dedicated%20funding.pdf>.
- Coen, A. 2014. "Treasurer: Sales Tax Extension to Aid Philadelphia Pensions." *Bond Buyer*, December 11.
- Cooper, Michael, and Mary Williams Walsh. 2010. "In Town That Stopped Checks, a Warning on Public Pensions." *New York Times*, December 22, A1.
- Costrell, R., and L. Maloney. 2013. "The Big Squeeze: Retirement Costs and School District Budgets. Paying the Pension Price in Philadelphia." Washington, DC: Thomas B. Fordham Institute. [http://edex.s3-us-west-2.amazonaws.com/publication/pdfs/20130606-paying-the-pension-price-in-philadelphia-FINAL\\_7.pdf](http://edex.s3-us-west-2.amazonaws.com/publication/pdfs/20130606-paying-the-pension-price-in-philadelphia-FINAL_7.pdf).
- Dabrowski, T., K. Woodruff, and J. Hegy. 2014. "The Crisis Hits Home: Illinois' Local Pension Problem." *Illinois Policy*, February. <https://d2dv7hze646xr.cloudfront.net/wp-content/uploads/2014/12/The-Crisis-Hits-Home-Illinois-Local-Pension-Problem.pdf>.
- Dardick, H. 2015. "Preckwinkle Sales Tax Hike Plays Well on Wall Street." *Chicago Tribune*, July 23.



- Dardick, H., and B. Ruthhart. 2015. "Emanuel's Tax Hike Tab: \$755 Million." *Chicago Tribune*, October 28.
- Fitch Ratings. 2011. "Enhancing the Analysis of U.S. State and Local Government Pension Obligations." <http://www.nasra.org/resources/Fitch1102.pdf>.
- Galland, Z. 2015. "Issue Brief: Expanding the Base of Illinois' Sales Tax to Consumer Services Will Both Modernize State Tax Policy and Help Stabilize Revenues." Center for Tax and Budget Accountability and Taxpayers Federation of Illinois. <http://www.ctbaonline.org/reports/issue-brief-expanding-base-illinois%E2%80%99-sales-tax-consumer-services>.
- GASB (Governmental Accounting Standards Board). 2012. *Accounting and Financial Reporting for Pensions*. Statement 68. Norwalk, CT.
- Giertz, J. Fred. 2003. "The Impact of Pension Funding on State Government Finances." *State Tax Notes* 29 (7): 507–13.
- Granof, Michael H., Saleha B. Khumawala, Thad D. Calabrese, and Daniel L. Smith. 2015. *Government and Not-for-Profit Accounting: Concepts and Practices*, 7th ed. Hoboken, NJ: Wiley.
- Hecht, Peter. 2013. "Judge Rejects Bid to Halt Stockton Bankruptcy." *Sacramento Bee*, April 2.
- Illinois Municipal Retirement Fund. 2014. *2014 Annual Comprehensive Annual Financial Report*. <https://www.imrf.org/en/publications-and-archive/annual-financial-reports>.
- Ives, Martin, Laurence Johnson, Joseph A. Razek, and Gordon A. Hosch. 2009. *Introduction to Governmental and Not-for-Profit Accounting*, 6th ed. Upper Saddle River, NJ: Pearson.
- Johnson, Richard W. 1997. "Pension Underfunding and Liberal Retirement Benefits of State and Local Government Workers." *National Tax Journal* 50 (1): 113–42.
- Long, Cate. 2012. "How Bankrupt Stockton, CA, Was Sold Pension Obligation Bonds." Reuters, September 7. <http://blogs.reuters.com/muniland/2012/09/07/how-bankrupt-stockton-ca-was-sold-pension-obligation-bonds/>.
- Malanga, Steven. 2013. "The Pension Fund That Ate California." *City Journal*. <http://www.city-journal.org/html/pension-fund-ate-california-13528.html>.
- Munnell, A. H., and L. Quinby. 2012. *Legal Constraints on Changes in State and Local Pensions*. State and Local Pension Plans 25. Chestnut Hill, MA: Center for Retirement Research at Boston College, State and Local Pension Plans. [http://crr.bc.edu/wp-content/uploads/2012/08/slp\\_25.pdf](http://crr.bc.edu/wp-content/uploads/2012/08/slp_25.pdf).
- NASBO (National Association of State Budget Officers). 2015. *Fiscal Survey of the States, Fall 2015: An Update of State Fiscal Conditions*. <https://www.nasbo.org/sites/default/files/Fall%202015%20Fiscal%20Survey%20of%20States%20%28S%29.pdf>.
- National Conference of State Legislatures. 2012–2015. *Pensions and Retirement State Legislation Database*. Denver, CO: National Conference of State Legislatures. <http://www.ncsl.org/research/fiscal-policy/pension-legislation-database.aspx>.
- . 2015. *State Personal Income Taxes on Pensions and Retirement Income: Tax Year 2014*. Denver, CO: National Conference of State Legislatures.
- New York State and Local Retirement System. 2015. "Comprehensive Annual Financial Report." [https://www.osc.state.ny.us/retire/word\\_and\\_pdf\\_documents/publications/cafr/cafr\\_15.pdf](https://www.osc.state.ny.us/retire/word_and_pdf_documents/publications/cafr/cafr_15.pdf).
- Novy-Marx, Robert, and Joshua Rauh. 2014. "The Revenue Demands of Public Employee Pension Promises." *American Economic Journal: Economic Policy* 6 (1): 193–229.
- Nuschler, Dawn, Alison M. Shelton, and John J. Topoleski. 2011. *Social Security: Mandatory Coverage of New State and Local Government Employees*. Washington, DC: US Congressional Research Service.
- Peng, Jun. 2008. *State and Local Pension Fund Management*. Boca Raton, FL: CRC.
- . 2014. "Public Pension Funds and Operating Budgets: A Tale of Three States." *Public Budgeting and Finance* 24 (2): 59–73.

- Peng, Jun, and Ilana Boivie. 2011. "Lessons from Well-Funded Public Pensions: An Analysis of Six Plans that Weathered the Financial Storm." Washington, DC: National Institute on Retirement Security. [http://www.nirsonline.org/storage/nirs/documents/Lessons%20Learned/final\\_june\\_29\\_report\\_lessonsfromwellfundedpublicpensions1.pdf](http://www.nirsonline.org/storage/nirs/documents/Lessons%20Learned/final_june_29_report_lessonsfromwellfundedpublicpensions1.pdf).
- Peters, M. 2015. "Chicago City Council Passes Largest Tax Increase in City History." *Wall Street Journal*, October 28.
- Pew Center on the States. 2011. "The Widening Gap: The Great Recession's Impact on State Pension and Retiree Health Care Costs." [http://www.pewtrusts.org/~media/legacy/uploadedfiles/pes\\_assets/2011/pewpensionsretireebenefitspdf.pdf](http://www.pewtrusts.org/~media/legacy/uploadedfiles/pes_assets/2011/pewpensionsretireebenefitspdf.pdf).
- . 2012. "The Widening Gap Update." [http://www.pewstates.org/uploadedFiles/PCS\\_Assets/2012/Pew\\_Pensions\\_Update.pdf](http://www.pewstates.org/uploadedFiles/PCS_Assets/2012/Pew_Pensions_Update.pdf).
- Pew Charitable Trusts. 2013. "A Widening Gap in Cities: Shortfalls in Funding for Pensions and Retiree Healthcare Care." [http://www.pewtrusts.org/~media/legacy/uploadedfiles/pes\\_assets/2013/pewcitypensionsreportpdf.pdf](http://www.pewtrusts.org/~media/legacy/uploadedfiles/pes_assets/2013/pewcitypensionsreportpdf.pdf).
- . 2014. "The Fiscal Health of State Pension Plans." <http://www.pewtrusts.org/en/research-and-analysis/analysis/2014/04/08/the-fiscal-health-of-state-pension-plans-funding-gap-continues-to-grow>.
- Poterba, James. 1994. "State Responses to Fiscal Crises: The Effects of Budgetary Institutions and Politics." *Journal of Political Economy* 102 (4): 799–821.
- Public Employee Retirement Commission, Commission of Pennsylvania. 2014. "Status Report on Local Government Pension Plans." December. Harrisburg, PA. <http://www.paauditor.gov/media/default/MunPenReporting/2014StatusReport.pdf>.
- Reid, Tim. 2012. "CalPERS Threatens San Bernardino over Pension Debt." Reuters, October 19. <http://www.reuters.com/article/us-usa-debt-calpers-idUSBRE8911FG20121019>.
- Rickert, D. S. 2015. "Commentary: First, Lay Off All the State Workers." *Chicago Tribune*, May 11. <http://www.chicagotribune.com/ct-illinois-pension-reform-workforce-perspec-0512-20150511-story.html>.
- Sneed, Cynthia, and John E. Sneed. 1997. "Unfunded Pension Obligations as a Source of Fiscal Illusion for State Governments." *Journal of Public Budgeting, Accounting, and Financial Management* 9 (1): 5–20.
- Stalebrink, Odd J. 2012. "Public Pension Funds and Assumed Rates of Return: An Empirical Examination of Public Sector Defined Benefit Pension Plans." *American Review of Public Administration*. doi: 10.1177/0275074012458826.
- Staub, A. 2015. "Anglers Could Be on the Hook for Pennsylvania's Public Pensions." *Pennsylvania Watchdog*, September 3. <http://watchdog.org/236624/fishing-license-pension-pennsylvania/>.
- US Census Bureau. 1993–2012. *Annual Surveys of State and Local Government Finances*. Washington, DC.
- . 1993–2014. *Survey of Public Pensions: State and Local Data*. Washington, DC.
- US General Accounting Office. 1979. *Funding of State and Local Government Pension Plans: A National Problem*. Report to the Congress of the United States. Washington, DC.
- US Government Accountability Office. 2014. "Pension Plan Valuation: Views on Using Multiple Measures to Offer a More Complete Financial Picture." GAO-14-264. <http://www.gao.gov/assets/670/666287.pdf>.
- VanMetre, Benjamin. 2015. "Another Illinois Town Hikes Taxes Amid Skyrocketing Pension Costs." *Illinois Policy*, March 5. <https://www.illinoispolicy.org/another-illinois-town-hikes-taxes-amid-skyrocketing-pension-costs/>.