

NASRA Issue Brief: State and Local Government Spending on Public Employee Retirement Systems



Updated December 2019

State and local government pension benefits are paid not from general operating revenues, but from trust funds to which state and local government retirees and their employers contributed during retirees' working years. These trusts pay over \$300 billion annually to retirees and their beneficiaries, benefits that reach virtually every city and town in the nation.ⁱ On a nationwide basis, contributions made by state and local governments to pension trust funds account for 4.7 percent of direct general spending (see Figure 1).ⁱⁱ Pension spending levels, however, vary widely among states, depending on various factors, and are actuarially sufficient for some pension plans and insufficient for others.

In the wake of the 2008-09 market decline, nearly every state and many cities have taken steps to improve the financial condition of their retirement plans and to reduce costs.ⁱⁱⁱ States and cities changed their pension plans by adjusting employee and employer contribution levels, restructuring benefits, or both. This update provides figures for public pension contributions as a percentage of state and local government direct general spending for FY 2017, and projects a rate of spending on pensions on an aggregate basis for FY 2018.

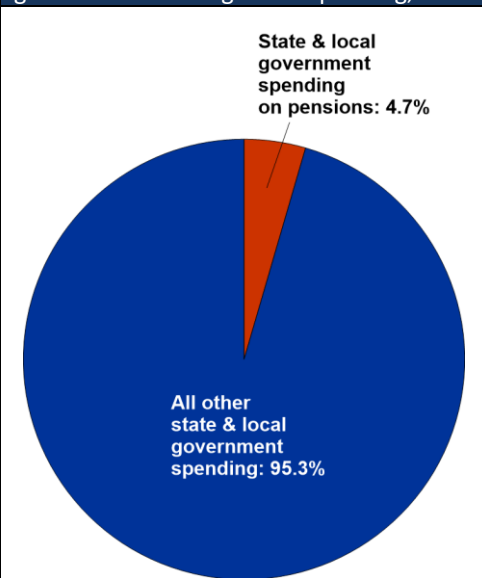
Nationwide Spending on Public Pensions

Based on the most recent information provided by the U.S. Census Bureau, 4.7 percent of all state and local government spending is used to fund pension benefits for employees of state and local government. As shown in Figure 2, pension costs rose sharply following FY 02 after falling equally sharply in the preceding years. These costs declined from 4.1 percent, in FY 89, to a low point of 2.3 percent in FY 02, and reached 4.7 percent in FY 17. The rate of spending in FY 17 was essentially unchanged from the prior year, dropping from 4.72 percent to 4.71 percent. Although slight, this decline marked the first decrease in the rate of pension spending since 2009. This reduction is notable especially in light of the improved effort among state and local governments in recent years to adequately fund their pension plans (see [NASRA Issue Brief: State and Local Government Contributions to Statewide Pension Plans: FY 17](#)).

State and local governments contributed, in aggregate, approximately \$160 billion to pension funds in FY 18, an amount that represents the largest annual increase in employer pension contributions since FY 14. As displayed in Figure 2, this change is projected to increase the percentage of state and local direct general spending on public pensions, from 4.71 percent to 5.02 percent.^{iv v}

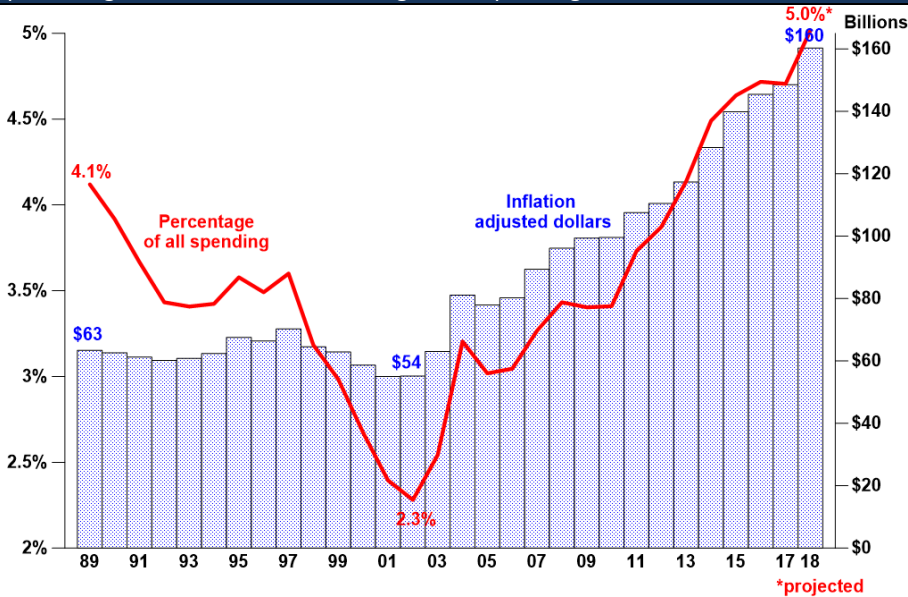
Although pensions in most states do not comprise a significant portion of aggregate state and local spending, (as shown in Table 1 on page 5), spending on pensions by states and political subdivisions varies widely among states, from less than 2.0 percent to nearly 10.0 percent. Some municipalities have reported higher pension costs as a percentage of their budget.

Figure 1. State and local spending on public pensions as a percentage of total government direct general spending, FY 17



Compiled by NASRA based on U.S. Census Bureau data

Figure 2. State and local pension contributions, in 2018 dollars, and as a percentage of state and local direct general spending, 1989-2018*



Compiled by NASRA based on U.S. Census Bureau data
 *Projected, based on estimated state and local government spending from National Association of State Budget Officers (NASBO) and U.S. Census Bureau data

Differences in Pension Cost Levels

The variation in pension spending levels among states is attributable to such factors as differences in benefit levels; variations in the size of unfunded pension liabilities; the level of commitment by the state and its local government plan sponsors to make required pension contributions; the portion of the state’s population that lives in an urban area; and the fiscal condition of government plan sponsors. Most employees of state and local government participate in statewide retirement systems. In FY 18, state and local government contributions to statewide retirement systems accounted for 77 percent of total pension contributions, with the remaining 23 percent belonging to locally administered systems. As a percentage of total

spending, cities spent approximately 31 percent more than states on pensions over the 30-year period spanning 1988-2017.^{vi} This higher level of spending is largely attributable to the types of services delivered at the local level (i.e., more labor-intensive, such as public safety personnel) and the resulting larger portion of local government spending that goes toward salaries and related benefits compared to spending by states.

Differences in Benefit Levels

Pension benefit levels, and therefore required costs, vary among public pension plans. As described below, this difference is particularly pronounced for the 25 percent to 30 percent of state and local government employees who do not participate in Social Security, as their pension benefit levels—and costs—generally are higher to compensate for all or part of the absence of Social Security benefits. In addition to pension benefit accrual rates, variations in benefit levels may manifest themselves also via differences in required employee contribution rates and other features of the plan design, such as vesting periods, age of retirement benefit eligibility, etc.

Size of Unfunded Liabilities

An unfunded pension liability is the projected difference between the pension benefits that have been accrued and the assets that have been set aside to pay for them. For a plan with a relatively large unfunded liability, the annual cost of paying down that liability can exceed the cost of benefits accrued each year. By contrast, the cost for a plan with no unfunded liability is simply the cost of benefits accrued each year, i.e., the normal cost. States with pension plans that have a relatively large unfunded liability will have higher pension plan spending levels, assuming the employer is making a good faith effort to pay its required contributions.

Social Security Coverage

Twenty-five to thirty percent of state and local governments and their employees make contributions to their retirement plan instead of to Social Security. This is the case for most to substantially all of the state and local government workforce in seven states, 40 percent of the nation’s public school teachers, and a majority of firefighters and police officers.^{vii} Pension benefits—and costs—for those who do not participate in Social Security are usually higher than for those who do participate, in order to compensate for the absence of Social Security benefits. This higher cost should be considered in the context of the 12.4 percent of payroll, or an estimated \$29 billion annually,^{viii} these employers and employees would otherwise be paying into Social Security.

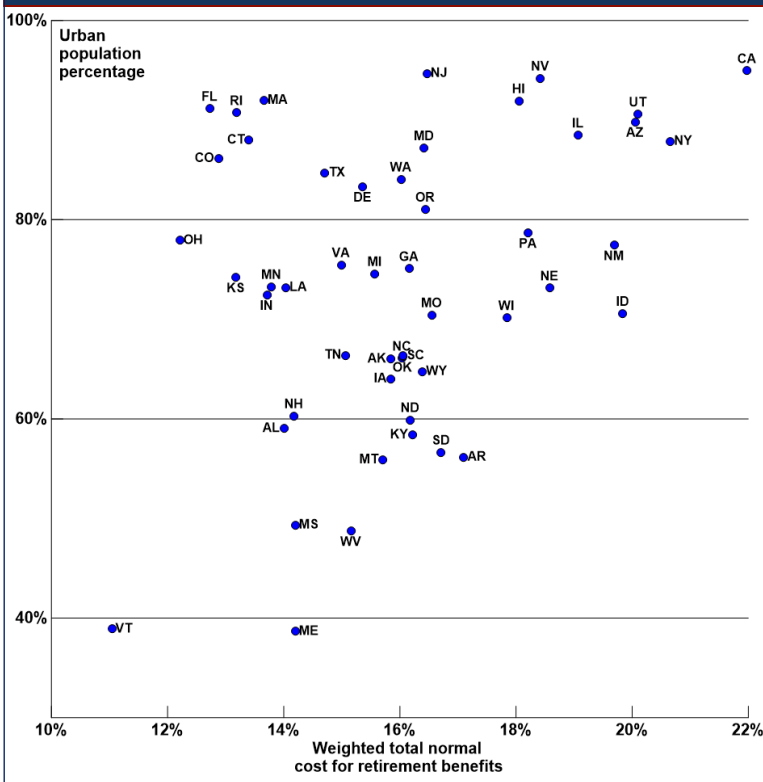
Level of Commitment to Pay Required Contributions

State and local government efforts to pay required contributions vary widely: some employers consistently pay the full Actuarially Determined Contribution, and others pay less.^{ix} Whatever the cost of the pension plan, actual spending on pensions as a percentage of all spending is affected by employers' effort to actuarially fund the plan.^x

Urbanization

Another factor that appears to contribute to differences among states in pension costs is the extent to which the state's population resides in urban areas, or cities. Figure 3, which reflects analysis of state and local spending on pensions and the percentage of population residing in metropolitan areas within each state, suggests that, although not true in every case, states characterized by greater urban populations are more likely to experience higher costs for public pension benefits than states with lower urban populations.^{xi} Tighter labor markets and higher cost of living – factors that may characterize densely populated cities – may lead employers to offer higher retirement benefits in order to meet their workforce management objectives. Pension benefits are just one component of total compensation, and other factors,

Figure 3. FY 17 State Retirement Benefit Costs and Urban Population Percentage



such as salaries and health benefits for active and/or retired workers, may also be correlated with a state's degree of urbanization, and may also affect the difference in pension costs. Further research into the relationship of these factors may clarify these differences.

Fiscal Condition of the Plan Sponsor

The fiscal status of governments that sponsor public pension plans is an important factor to consider when measuring the percentage of state spending dedicated to pensions in each state. The national aggregate rate of increase in state expenditures from FY 16 to FY 17 was 4.3 percent, which outpaced growth in employer pension contributions and is representative of a trend of increases in government fiscal capacity, as indicated by growth in major sources of state and local tax revenue observed in recent years.^{xii} However, the individual state experience is mixed: compared to FY 16, FY 17 individual state expenditures ranged from an increase of nearly 12 percent to a nearly commensurate rate of decline. States with stronger economic growth – as measured by increased spending – are better able to absorb higher pension contributions than states with weaker or negative growth.

In addition to these causes of variation in pension costs among states, consistent comparisons of pension spending by local governments can be difficult to make because the fiscal relationship between each state and its political subdivisions is unique with respect to revenue, spending structure and taxing authority, and varies widely. For example, funding responsibility for K-12 education budgets ranges from primarily a state duty to one that is primarily a local responsibility.^{xiii} Likewise, revenue-sharing arrangements and the authority of local governments to tax and raise revenue also run a wide range. As with states, pension costs for municipalities also can vary widely.

Cost and Financing Factors

Public pensions are financed through a combination of contributions from public employers (state and local agencies) and public employees, and the investment earnings on those contributions. Since 1989, investment earnings have accounted for 63 percent of all public pension revenue; employer contributions, 26 percent; and employee contributions, 11 percent.^{xiv}

Employee Contributions

Because nearly all public employees are required both to participate in their employer-sponsored retirement plan and to contribute toward the cost of their pension benefit—typically four to eight percent of pay—most state and local government retirement plans are, in fact, mandatory savings programs. In recent years, many states increased rates of required employee contributions. On a national basis, in fiscal year 2018, employee contributions accounted for nearly 26 percent of all public pension plan contributions, with employer contributions making up the remaining 74 percent.^{xv}

Employer Contributions

A variety of state and local laws and policies guide governmental pension funding practices. Most require employers to contribute what is known as the Actuarially Determined Employer Contribution (ADEC), which is the amount needed to finance benefits accrued each year, plus the annual cost to amortize unfunded liabilities from past years, less required employee contributions. On a weighted basis, the average ADEC paid in recent years has been over 90 percent. Beneath this average contribution experience lies diversity: approximately 75 percent of plans in the Public Fund Survey^{xvi} consistently receive 90 percent or more of their ADC.^{xvii} This means that although a majority of plans have been receiving their actuarial required funding, some plans have not been adequately funded, which will result in higher future costs. Leading national public sector associations established a Pension Funding Task Force, which in 2013 released its report [Pension Funding: A Guide for Elected Officials](#) urging policymakers to follow recommended guidelines for an actuarially determined contribution to government retirement systems.

Investments and Other Parts of the Financing Equation
















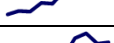



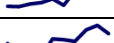

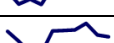








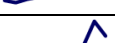














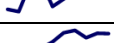



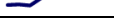

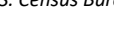
The largest portion of public pension funding – over 60 percent for the 30-year period 1989-2018 – comes from investment earnings, which illustrates the major role this revenue source plays in determining pension costs (see [NASRA Issue Brief: Public Pension Plan Investment Return Assumptions](#), February 2019).

In addition to the performance of pension fund investments, actuarial expectations regarding macro-economic and demographic events also affect the cost of the plan. These events include the rate of inflation, retirement rates, attrition and rates of hiring, and wage growth, which can be affected by salary cuts and layoffs. Additionally, legislatures in nearly every state made changes to pension benefits and/or financing structures, in some cases reducing plan costs and long-term obligations.

Conclusion

Pension costs paid by state and local government employers vary widely and reflect multiple factors, including differing levels of public services, benefits, pension funding levels, employer effort to pay required contributions, and the fiscal condition of states and their political subdivisions, among others. Employers in FY 18 contributed a total of \$160 billion to pension benefits for employees, an amount that, in total, is a relatively small—but growing—part of state and local government spending.

Table 1: State and local government contributions to pensions as a percentage of all state and local government direct general spending, by state, FY 08 to FY 17

	FY 08 %	FY 08 to FY 17 %	FY 17 %			FY 08 %	FY 08 to FY 17 %	FY 17 %
Alabama	3.44		3.19		Montana	2.54		2.92
<i>Alaska</i>	6.06		4.21		Nebraska	1.88		2.67
Arizona	2.84		4.33		<i>Nevada</i>	6.40 ²		4.11
Arkansas	3.46		3.47		New Hampshire	2.20		3.98
<i>California</i>	4.76		6.50		New Jersey	3.30		4.05
<i>Colorado</i>	2.57		3.39		New Mexico	3.35		3.42
Connecticut	11.24 ¹		9.17		New York	4.91		6.23
Delaware	1.69		2.77		North Carolina	1.07		2.50
<i>District of Columbia</i>	1.50		2.23		North Dakota	1.53		2.29
Florida	2.69		2.73		<i>Ohio</i>	3.48		4.37
Georgia	2.41		4.22		Oklahoma	4.20		4.44
Hawaii	4.11		5.60		Oregon	3.03		2.73
Idaho	2.83		3.17		Pennsylvania	1.87		5.66
<i>Illinois</i>	4.09		9.93		Rhode Island	5.48		6.55
Indiana	3.16		3.67		South Carolina	2.68		3.20
Iowa	1.95		2.57		South Dakota	1.92		1.98
Kansas	2.24		4.87		Tennessee	2.77		2.90
Kentucky	2.81		5.97		<i>Texas</i>	2.24		3.07
<i>Louisiana</i>	3.75		6.23		Utah	3.19		4.25
<i>Maine</i>	3.08		3.27		Vermont	1.13		2.34
Maryland	3.16		4.75		Virginia	4.23		4.00
<i>Massachusetts</i>	4.01		4.16		Washington	1.89		3.31
Michigan	2.87		5.20		West Virginia	4.32		4.42
Minnesota	1.86		2.32		Wisconsin	1.57		2.03
Mississippi	3.16		4.02		Wyoming	1.42		1.98
Missouri	3.83		4.57		US Average	3.43		4.71

Compiled by NASRA based on U.S. Census Bureau data

Table Notes

Charts in the FY 08 to FY 17 % column reflect the percentage spending for each of the 10 years within the timeframe. Percent-of-spending is as of publication date; figures are subject to periodic revisions by the U.S. Census Bureau. States where more than one-half of public employee payrolls are estimated to be outside of Social Security are italicized.

¹Figure includes \$2 billion in pension obligation bond proceeds from the State of Connecticut's sale of a pension obligation bond to reduce the unfunded liability of the Connecticut State Teachers' Retirement System.

²Prior to 2016 one-half of Nevada PERS employers' contribution was attributable to a non-refundable pre-tax salary reduction to fund the employees' portion of the contribution. Since 2016, the Nevada PERS employer contribution figure includes employer-paid contributions only, and employer-paid member contributions are excluded.

See also

National Governors Association, National Conference of State Legislatures, The Council of State Governments, National Association of Counties, National League of Cities, The U.S. Conference of Mayors, International City/County Management Association, National Council on Teacher Retirement, National Association of State Auditors, Comptrollers and Treasurers, Government Finance Officers Association, and National Association of State Retirement Administrators, "Pension Funding: A Guide for Elected Officials," 2013, [https://www.nasra.org//Files/JointPublications/PensionFundingGuide\(1\).pdf](https://www.nasra.org//Files/JointPublications/PensionFundingGuide(1).pdf)

National Association of State Retirement Administrators, Issue Brief: Public Pension Plan Investment Return Assumptions, Updated February 2019, <http://www.nasra.org/returnassumptionsbrief>

National Association of State Retirement Administrators, Issue Brief: Employee Contributions to Public Pension Funds, September 2019, <https://www.nasra.org/contributionsbrief>

Contact

Keith Brainard, Research Director, keith@nasra.org

Alex Brown, Research Manager, alex@nasra.org

[National Association of State Retirement Administrators](http://www.nasra.org)

ⁱ U.S. Census Bureau, Annual Survey of Public Pensions, <https://www.census.gov/programs-surveys/aspp.html>, 2018; see also "Economic Effects of Public Pensions," <http://www.nasra.org/economiceffects>

ⁱⁱ The U.S. Census Bureau defines direct general expenditures as all payments to employees, suppliers, contractors, beneficiaries, and other final recipients of governmental payments. Excluded from this category are expenditures for utilities, publicly owned liquor stores, employee retirement benefits paid from trust funds, and intergovernmental payments. Some state and local government spending is non-discretionary, and therefore not in competition for funds with other programs and services. Including non-discretionary spending would make the effect of pension spending appear smaller. In addition, some states and cities do not contribute the amount determined actuarially to adequately fund the plan.

ⁱⁱⁱ NASRA, Significant Reforms to State Retirement Systems, <https://www.nasra.org/reforms> & Selected Approved Changes to State Public Pensions, <https://www.nasra.org/files/Compiled%20Resources/nasrapensionchanges.pdf>

^{iv} Projected spending for 2018 derived from actual state expenditures as reported by the National Association of State Budget Officers in the 2016-2018 State Expenditure Report (<https://www.nasbo.org/mainsite/reports-data/state-expenditure-report> p. 8 and projected increase in local government direct general spending, as provided by the U.S. Census Bureau <https://www.census.gov/programs-surveys/gov-finances.html>

^v 2018 employer pension contributions includes a \$6 billion one time appropriation from the California Legislature and an additional \$538 million from political subdivisions in California to reduce their respective shares of unfunded liabilities of the California Public Employees' Retirement System (CalPERS). Excluding this amount reduces the projected spending figure for 2018 to 4.8 percent.

^{vi} Author's calculations using public pension and state and local government finance data provided by the U.S. Census Bureau

^{vii} Social Security Coverage @NASRA.org, <http://www.nasra.org/socialsecurity>

^{viii} Author's calculation based on 25 percent of state and local government employees not participating in Social Security, using US Census, 2016 Annual Survey of Public Employment & Payroll, <https://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?src=bkmk>

^{ix} NASRA, The Annual Required Contribution Experience of State Retirement Plans, FY 01 to FY 13, <https://www.nasra.org/arcspotlight> and State and Local Government Contributions to Statewide Pension Plans: FY 17, <http://www.nasra.org/adcbrief>

^x NASRA, State and Local Government Contributions to Statewide Pension Plans, FY 17

^{xi} A moderate positive relationship is observed to exist between each state's weighted cost for pension benefits, with an adjustment for Social Security costs, and the percentage of residents in each state residing in Census-designated urban areas. Pension costs are sourced from Public Plans Data (<https://publicplansdata.org/>), and are weighted for plans in each state and adjusted between 0-500 basis points depending on the [percentage of public employees covered by Social Security](#) in each state, based on expected present values of lifetime Social Security benefits and taxes paid as published in "[Social Security and Medicare Lifetime Benefits and Taxes: 2018 Update](#)," Urban Institute (October 2018). Urban density data are published by the U.S. Census Bureau and may be accessed at <https://www.census.gov/geo/reference/ua/urban-rural-2010.html>.

^{xii} State and Local Revenue @NASRA.org, <http://www.nasra.org/revenue>

^{xiii} U.S. Census Bureau, Table 5. Percentage Distribution of Public Elementary-Secondary School System Revenue by Source and State: Fiscal Year 2017, <https://www.census.gov/programs-surveys/school-finances.html>

^{xiv} U.S. Census Bureau, Annual Survey of Public Pensions, <https://www.census.gov/programs-surveys/aspp.html>, 1989-2018

^{xv} U.S. Census Bureau, Annual Survey of Public Pensions, <https://www.census.gov/programs-surveys/aspp.html>, 2018

^{xvi} NASRA Public Fund Survey, <http://www.nasra.org/publicfundsurvey>

^{xvii} NASRA, The Annual Required Contribution Experience of State Retirement Plans, FY 01 to FY 13, <https://www.nasra.org/arcspotlight>