

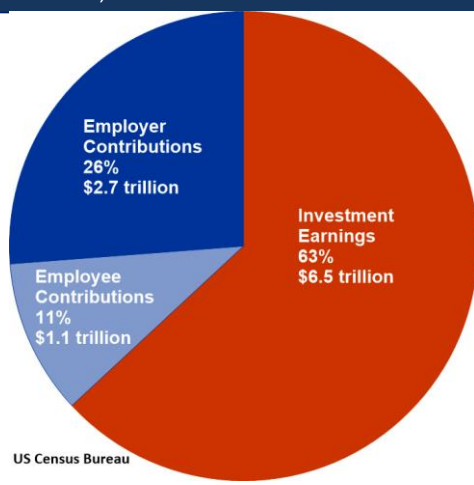
NASRA Issue Brief: State and Local Government Contributions to Statewide Pension Plans: FY 22

November 2023



Pension benefits for employees of state and local governments are paid from trust funds to which public employers and employees contribute during employees' working years. Timely contributions are vital to both adequate funding and the sustainability of these plans: failing to pay required contributions results in higher future costs due to foregone principle and investment earnings that the contributions would have generated.

Figure A: Sources of public pension fund revenue, 1993-2022



Source: US Census Bureau, compiled by NASRA

According to the US Census Bureau, on a national basis, contributions made by employers—states and local governments—in 2022 accounted for 78 percent of all contributions received by public pension plans. The remaining contributions were paid by public employees.¹ A 2022 NASRA issue brief finds that contributions made by state and local governments to pension trust funds in recent years account for 5.0 percent of all non-federal spending.²

Funding a pension plan takes place over many years and, as described in the box below, typically involves a combination of contributions from employees and employers, which are invested to generate investment earnings. The amount of contributions needed to fund a pension plan is calculated as part of an actuarial valuation, a mathematical process that determines a pension plan's condition and cost needed to pay promised benefits. As shown in Figure A, contributions are a vital source of public pension funding: of the \$10+ trillion in public pension revenue received during the 30-year period

since 1993, 37 percent, or more than \$3.8 trillion, came from contributions paid by employers and employees.³ Contributions, of course, provide the basis for investment earnings, which are responsible for the majority of revenue – over 60 percent for the same 30-year period – received by public pension funds.

A Brief History of Public Pension Contributions⁴

Although employee and employer contributions today are a core feature of funding for most public pension plans, this has not always been the case. For many years, including, for some plans as recently as the 1980s, pension benefits for employees of state and local government either were not prefunded, or these benefits were funded without the use of actuarial calculations to determine the annual amount needed to fund promised benefits. For example, some states and cities funded pension plans either on a pay-as-you-go basis, in which current benefits were paid with current employer revenues; or public employer payments into the pension plan were not based on an amount determined by actuarial calculation or as a consistent, fixed percentage of employee pay. The practice of not funding benefits using actuarial cost or based on a fixed percentage of worker pay resulted in inadequate contributions; this resulted in significant unfunded liabilities, some of which persist today.

¹ US Census Bureau, 2020 Annual Survey of Public Pensions

² NASRA, "State and Local Government Spending on Public Employee Retirement Systems," February 2022; calculation excludes spending from federal sources

³ Contributions@NASRA.org, <http://www.nasra.org/contributions>

⁴ The authors wish to thank Paul Angelo with Segal and David Kausch, formerly with GRS Consulting, for their input on this section.

The amount needed to adequately fund a pension benefit also has not always been a clear or settled matter. Efforts by the accounting and actuarial professions to establish a consensus methodology for determining a contribution required for funding new benefit accruals and for systematically eliminating any unfunded liabilities resulted in the creation in 1994 of the Annual Required Contribution, or ARC, by the Governmental Accounting Standards Board (GASB). In Statement 25, GASB defined the ARC (paraphrased) as the sum of the plan's normal cost (i.e., the cost of benefits accrued each year) and the annual cost to amortize the plan's unfunded liability over a period of years, known as the funding period.

Although established only as an accounting requirement, the ARC became widely recognized as a de facto measure of employers' effort to fund the pension benefits they were sponsoring. However, compliance with the GASB ARC also permitted the use of certain actuarial methods that resulted in contributions that were insufficient to actually amortize unfunded liabilities over the funding period. One example of such a method was the use of a so-called rolling amortization period, in which the funding period did not decline because it was effectively refinanced each year. Using this method, when the amortization period is lengthy, such as longer than 20 years, the result was amortization of an unfunded liability over a considerably longer period. (See more: [NASRA Overview of Public Pension Plan Amortization Policies](#), April 2022)

Following the onset of GASB 25, the actuarial and accounting professions continued to make efforts to strengthen required contributions to public pension plans: in 2014, the Conference of Consulting Actuaries published non-binding guidelines for developing a principles-based actuarial funding policy.⁵ These guidelines articulate key elements of an actuarial-based funding policy and specify recommended practices for implementing such a policy.

In 2015, GASB supplanted Statement 25 with Statement 67, replacing the ARC with a new term, the Actuarially Determined Contribution, or ADC. Through Statement 67, GASB sought to clarify and emphasize that its pension accounting standards are, indeed, *accounting* standards, not guidelines for how a public pension plan should be funded. This distinction is evident in the GASB 67 definition of an ADC, which, rather than specifically defining what an appropriate pension contribution should be, instead defers to the Actuarial Standards Board (ASB) (the entity charged with promulgating guidelines for professional actuaries known as Actuarial Standards of Practice, or ASOPs), the responsibility for defining how a public pension plan should be funded. The GASB 67 definition of an ADC is as follows:

A target or recommended contribution to a defined benefit pension plan for the reporting period, determined in conformity with Actuarial Standards of Practice based on the most recent measurement available when the contribution for the reporting period was adopted.

For practical purposes, in most cases the ADC is substantially similar to the ARC in that both measures reflect a contribution dollar amount and a percentage of pay rate that are based on an actuarial calculation reflecting the sum of the normal cost and a cost to eliminate any unfunded liability within a permissible timeframe. GASB's switch to the ADC was intended to shift the focus of funding a pension plan from accounting standards to actuarial standards.

Another change made by Statement 67 was that single employer and (multiple-employer) cost-sharing plans that calculate an Actuarially Determined Contribution are required to report:

- a) the ADC;
- b) if different from the ADC, the contractually required contribution rate, such as would exist under a statutory fixed contribution requirement for cost-sharing plans;
- c) actual contributions made to the plan; and
- d) the dollar difference between the ADC and the actual contributions.⁶

⁵ Conference of Consulting Actuaries, *Actuarial Funding Policies and Practices for Public Pension Plans*, 2014

⁶ Statement 67 also eliminates the requirement that agent plans report their ADC experience, because, as the statement says, "aggregated information about contributions to agent pension plans has limited decision utility because the pattern of contributions to each individual agent employer's pension plan would be obscured if the aggregated amounts were reported about the agent pension plan as a whole." Individual employers

The Retirement Benefit Plan Equation

A basic formula describes the financing of any type of retirement benefit:

$$C + I = B + E$$

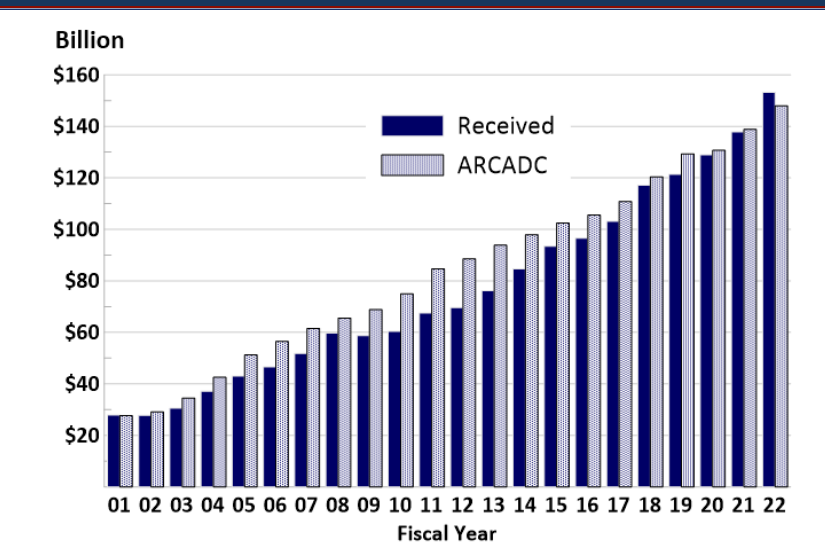
Contributions plus investment earnings equals benefits plus expenses. The money that is drawn from a retirement plan, for benefits and administrative costs, ultimately must equal the money that is contributed to the plan and the investment earnings those contributions generate. This fundamental formula illustrates the vital role contributions play in funding a pension plan.

Because GASB 67 permits agent plans and plans that do not calculate an ADC⁷ to forgo reporting an ADC and its actual contributions received toward the ADC, since the onset of this statement in 2015, several plans that previously were included in the dataset that accompanies this brief ceased including this information in their financial reports. That experience is reflected in Appendix A.

ASOP No. 4⁸ defines an actuarially determined contribution as:

A potential payment to the plan as determined by the actuary using a contribution allocation procedure. It may or may not be the amount actually paid by the plan sponsor or other contributing entity.

Figure B: Inflation-adjusted change in Annual Required Contribution/Actuarially Determined Contribution and employer contributions, FY 01 to FY 22



Source: State retirement system financial reports, compiled by NASRA

Recent Contribution Experience

As shown in Figure B, aggregate contributions in FY 22 to the plans included in this analysis increased over the prior year by 11.1 percent, growing from \$137.8 billion in FY 21 to \$153.1 billion.

This experience reflects a continuation of an effort among state and local governments to make a larger portion, including 100 percent and more, of their actuarially determined pension contributions. As Figure C illustrates, the median percentage of ADC received in FY 22 was again 100 percent, and the dollar-weighted average reached 103.6 percent. This marks the highest percentage of ADC received since NASRA began monitoring this experience in FY 01, and the eighth consecutive year in which the aggregate ADC experience was higher than 90 percent.

Following the recession of 2007-09 and the market decline of 2008-09, many public pension plans changed their funding policies and practices, resulting in increases in required contributions. Such changes include implementation of more aggressive funding policies; lower investment return assumptions; updated mortality assumptions; and reduced amortization periods.

Dedicated Funding Sources

In recent years, a growing number of public employers established dedicated public pension funding sources to supplement or replace other sources of funding for employer contributions to public pensions. Traditionally, contributions to public pension funds come from employers' general fund and other sources that are used to pay employees. Such dedicated funding sources include dedicated sales taxes, insurance policy surcharges, budget surplus monies, mineral and severance tax revenues, and others. Perhaps the most notable source of dedicated funding is in the State of New Jersey, which in 2017 transferred rights to all revenue generated by the state lottery to the state pension plans.⁹

Contributions above the ADC

As shown in Figure D, continuing a trend seen in recent years, some plans received significantly more than their ADC in FY 22, and some of these same plans have consistently received contributions well above the actuarially determined

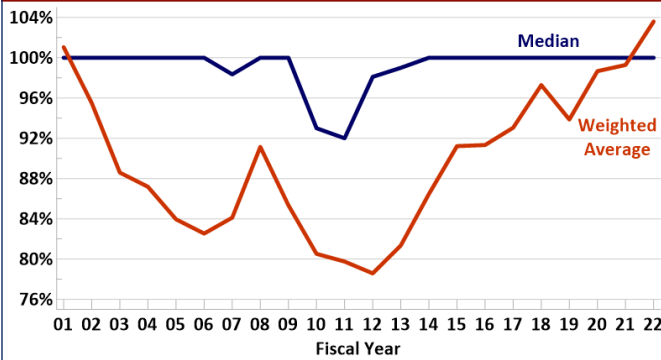
participating in agent pension plans each have their own actuarial experience, with their own liability and contribution rate. Many agent plans permit employer members to contribute more than the ADC.

⁷ Statement 67 requires plans to report their ADC experience if an ADC is calculated. Since contribution requirements for fixed rate plans are set in statute, some of these plans do not report their ADC experience and instead compare their contributions received to the legal or statutory requirement.

⁸ Effective for any actuarial report issued on or after February 15, 2023, ASOP No. 4 will require the disclosure of a so-called reasonable actuarially determined contribution, which requires following a contribution allocation procedure that adheres to a set of conditions specified in the standard. For more information, see here: <http://www.actuarialstandardsboard.org/asops/asop-no-4-measuring-pension-obligations-and-determining-pension-plan-costs-or-contributions/#321-reasonable-actuarially-determined-contribution>

⁹ Funding Policies@NASRA.org, <http://www.nasra.org/funding>

Figure C: Median and weighted average employer contributions as a percentage of ARC/ADC, FY 01 to FY 22



amount. Some of these are agent plans, in which each employer has its own actuarial experience and required contribution rate, and some employers elect to contribute more than the actuarially determined amount.

Contributions above the ADC can be made for a variety of reasons, including the availability of surplus revenue, such as from a budget surplus; changes to the timing of contributions, such as from one fiscal year to another; and to pre-fund targeted benefits, such as a cost-of-living adjustment.

After operating for decades on a pay-as-you-go-basis, for most of the past 20 years, the West Virginia Teachers' Retirement System has received its full required contribution, including an average of more than 120 percent of its ADC since FY 15. In recent years, the plan's contribution sources include state budget surplus funds and a portion of the state's

tobacco settlement monies, used to reduce the state's unfunded actuarial liability. In 2010, legislation approved in West Virginia directs 10 percent of revenues from the state tax on fire insurance premiums and casualty insurance policies to the Teachers' Retirement System.

During the past decade, public employers in Nebraska have contributed an average of more than 130 percent of the ADC to the defined benefit plan for school teachers and the cash balance plans for state and county employees. Employer contributions for Nebraska plans are set at 101 percent of the employee rate, resulting in an employer contribution rate that is essentially fixed and, in recent years, higher than the actuarially determined contribution rates.

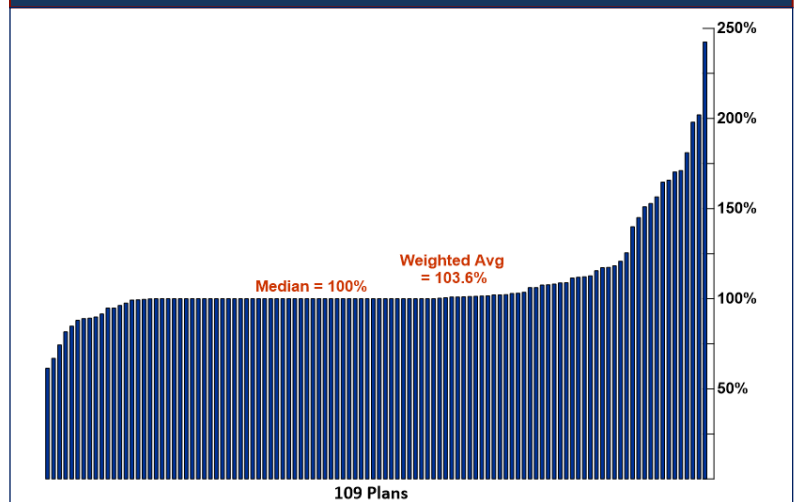
In some cases, surplus contributions are directed to public pension funds by state law. In 2011 Louisiana voters passed a constitutional amendment that directs 10 percent of the state's budget surplus from the prior fiscal year to the unfunded liability of LASERS and TRSL. A 2023 ballot measure passed by voters increased the percentage to 25 percent and expanded the target funds to include the state's School Employees' and State Police Retirement Systems.

In 2014 California voters approved Proposition 2, which amended the California Constitution to require the state to set aside certain excess revenues each year in order to pay down specified state liabilities, which includes unfunded state pension liabilities. This has resulted in nearly \$5 billion in supplemental contributions paid to CalPERS in the last two fiscal years.

In other cases, surplus contributions to public pension funds are discretionary, i.e., periodic and irregular, rather than being subject to a legal requirement or other formulaic provision governing their distribution. Examples in recent years include:

- 2022 legislation directed an extra \$300 million to the Employees' Retirement System of Hawaii
- The FY 2023 Missouri budget included a \$500 million extraordinary payment to the Missouri State Employees' Retirement System (MOSERS)
- The Tennessee Consolidated Retirement System has received a total of \$900 million in excess contributions directed to its State and Higher Education legacy pension plan over the past three fiscal years.

Figure D: Distribution of employer contributions received in FY 22 as a percentage of actuarially determined contribution



Source: State retirement system financial reports, compiled by NASRA

See more ([Selected States Appropriating Funds Above the ADEC to Public Pension Plans since FY 21](#), NASRA).

Governance Structure May Impact Funding Experience

[NASRA research](#) has found that public pension plan governance arrangements—the laws and rules determining the payment of contributions—affects the plan’s contribution experience. Specifically, plans whose employers are statutorily required to pay the Actuarially Determined Contribution are more likely to receive their ADC than plans with a Fixed contribution arrangement or with no legal requirement.¹⁰

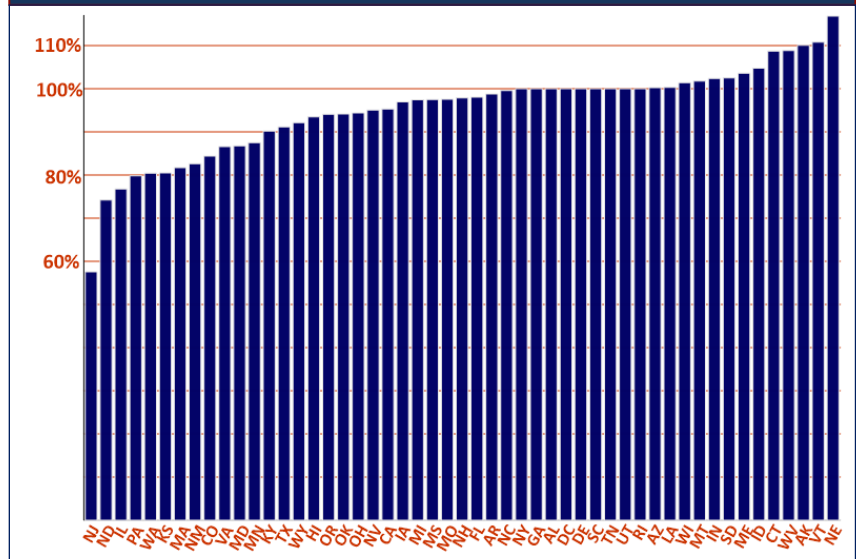
Conclusion

Although employer contributions are a vital component of funding public pension benefits, only recently—over the past 30 years—has a broad consensus developed that pension benefits should be funded on an actuarial basis, and on how the amount should be calculated.

The experience of state and local government employers making contributions has been mixed, with some plans consistently receiving all or more of their full actuarially calculated contributions, while other plans have consistently received less than the actuarially determined amount. In some cases, amounts contributed by employers have been substantially less. This varied contribution experience is explained in part by the wide diversity in the governance arrangement states and local governments use to make their employer pension contributions.

Actuarially calculated employer contributions increased significantly following the market declines of 2000-2002 and 2008-2009, even while in the case of some plans, actual employer contributions have struggled to keep up with actuarially calculated levels. For the 12th consecutive year, aggregate employer contributions for the plans in this analysis grew from the prior year; the average annual rate of growth in employer contributions over the past 10 years is 7.8 percent. As a percentage of actuarially determined contributions, aggregate contributions in FY 2021 reached their highest level since FY 2001. This aggregate experience is affected by one-time supplemental contributions received by some plans, and obscures a wide range of experience, as some plans received approximately 60 percent of their required contribution, while others received contributions in excess of 160 percent.

Figure E: Distribution of weighted average employer contributions made to plans in this analysis for each state, for period FY 01 to FY 22



Source: State retirement system financial reports, compiled by NASRA

¹⁰ [Employer Contribution Governance Structure and Pension Funding Experience](#), NASRA

See also

National Association of State Retirement Administrators, "The Annual Required Contribution Experience of State Retirement Plans," 2015, http://www.nasra.org/files/JointPublications/NASRA_ARC_Spotlight.pdf

National Association of State Retirement Administrators, "Recession and Market Decline Impacts on Public Pension Plans," 2020, <https://www.nasra.org/content.asp?admin=Y&contentid=246>

National Association of State Retirement Administrators, Issue Brief: State and Local Government Spending on Public Employee Retirement Systems, February 2022, <http://www.nasra.org/costsbrief>

National Association of State Retirement Administrators, Issue Brief: Employee Contributions to Public Pension Funds, September 2022, <http://www.nasra.org/contributionsbrief>

National Association of State Retirement Administrators, "[Significant Reforms to State Retirement Systems](#)," 2018 and "[Selected Approved Changes to State and Selected Local Public Pensions](#)," 2019-present

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Appendix A
Basis of employer contribution and contribution history

Plan Name	History of Contributions Received		
	FY 13 %	FY 22 %	10-Year Weighted Avg % ARC/ADC Received, FY 13 to FY 22
Alaska PERS	89.9	102.1	107.1
Alaska Teachers	90.2	102.1	157.2
Alabama ERS	100.0	100.0	100.0
Alabama Teachers	100.0	100.0	100.0
Arkansas PERS	100.0	100.0	100.0
Arkansas Teachers	88.7	100.0	94.5
Arizona Public Safety Personnel	103.7		99.3
Arizona SRS	100.0	100.0	100.0
California PERF	100.0	125.5	115.0
California Teachers	44.0	97.6	80.3
Colorado Affiliated Local	100.0		127.1
Colorado Municipal	116.0	106.2	100.3
Colorado School	79.0	108.8	89.3
Colorado State	79.0	117.4	91.8
Denver Public Schools	37.0	156.5	62.6
Connecticut SERS	99.9	112.7	106.0
Connecticut Teachers	100.0	115.5	110.0
DC Police & Fire	100.0	100.0	100.0
DC Teachers	100.0	100.0	100.0
Delaware State Employees	100.0	100.0	100.0
Florida RS	66.0	100.0	97.9
Georgia ERS	100.2	100.0	100.0
Georgia Teachers	100.0	100.0	100.0
Hawaii ERS	90.5	100.0	91.4
Iowa PERS	98.0	101.4	101.7
Idaho PERS	97.0	102.9	103.5
Illinois Municipal	99.0	100.0	99.9
Illinois SERS	88.0	89.2	83.2
Illinois Teachers	79.8	66.9	68.5
Illinois Universities	90.5	89.8	86.6
Indiana PERF	95.5	145.0	114.5
Indiana Teachers	114.7	102.3	104.1
Kansas PERS	75.0	99.4	87.5
Kentucky County	100.0	91.5	90.4
Kentucky ERS	60.8	106.1	97.7
Kentucky Teachers	71.0	139.9	91.7
Louisiana SERS	89.6	101.7	100.3
Louisiana Teachers	99.0	111.9	103.2
Massachusetts SERS	77.9	94.8	78.2
Massachusetts Teachers	80.8	94.8	78.5
Maryland PERS	71.0	100.0	89.3
Maryland Teachers	78.0	100.0	90.4

Appendix A
Basis of employer contribution and contribution history

Plan Name	History of Contributions Received		
	FY 13 %	FY 22 %	10-Year Weighted Avg % ARC/ADC Received, FY 13 to FY 22
Maine Local	100.0	100.0	100.0
Maine State and Teacher	100.0	100.0	100.0
Michigan Municipal	118.0		131.5
Michigan Public Schools	70.6	120.8	99.4
Michigan SERS	99.0	99.9	102.4
Minnesota PERF	86.5	152.8	97.6
Minnesota State Employees	66.9	197.9	88.4
Minnesota Teachers	62.7	107.7	82.5
Missouri DOT and Highway Patrol	100.0	100.0	100.0
Missouri Local	100.0		101.4
Missouri PEERS	111.5	100.3	104.4
Missouri State Employees	100.0	100.0	100.3
Missouri Teachers	125.0	101.0	108.9
Mississippi PERS	100.0	96.3	96.7
Montana PERS	93.9	100.0	97.2
Montana Teachers	70.2	100.0	97.3
North Carolina Local Government	100.0	99.3	101.4
North Carolina Teachers and State Employees	104.0	100.0	100.9
North Dakota PERS	50.0	61.4	61.2
North Dakota Teachers	113.3	103.1	101.0
Nebraska County Cash Balance	124.0	151.0	147.7
Nebraska Schools	79.0	202.0	128.5
Nebraska State Cash Balance	120.0	181.0	149.4
New Hampshire Retirement System	100.0	100.0	100.0
New Jersey PERS - local	90.5	118.2	100.5
New Jersey PERS - state	28.6	100.0	53.6
New Jersey Police & Fire - local	92.7	112.2	100.8
New Jersey Police & Fire - state	27.8	100.0	54.4
New Jersey Teachers	27.8	108.1	56.1
New Mexico PERF	100.0	74.4	78.5
New Mexico Teachers	62.3	81.6	75.8
Nevada Police Officer and Firefighter	88.0	89.0	93.2
Nevada Regular Employees	86.0	88.0	97.2
New York State Teachers	100.0	100.0	99.8
NY State & Local ERS	100.0	100.0	100.0
NY State & Local Police & Fire	100.0	100.0	100.0
Ohio PERS	100.0	100.1	100.0
Ohio Police & Fire	74.0		74.0
Ohio School Employees	100.0	100.0	101.2
Ohio Teachers	46.0	171.1	117.3
Oklahoma PERS	105.2	242.4	152.2
Oklahoma Teachers	113.1	111.5	107.1

Appendix A
Basis of employer contribution and contribution history

Plan Name	History of Contributions Received		
	FY 13 %	FY 22 %	10-Year Weighted Avg % ARC/ADC Received, FY 13 to FY 22
Oregon PERS	86.1	100.0	98.9
Pennsylvania School Employees	46.0	100.0	89.6
Pennsylvania State ERS	60.2	100.0	104.6
Rhode Island ERS	100.0	100.0	100.0
Rhode Island Municipal	100.0	100.0	100.0
South Carolina Police	100.0	100.0	100.0
South Carolina RS	100.0	100.0	100.0
South Dakota RS	100.0	100.0	104.9
Tennessee Political Subdivision Plan ^{/1}	100.0		100.0
Tennessee Public Employee Retirement Plan ^{/1}		100.0	103.2
Tennessee State and Teachers ^{/1}	100.0		100.0
Tennessee State Employees Hybrid Plan ^{/1}		100.0	80.9
Tennessee State Employees Legacy Plan ^{/1}		100.0	96.0
Tennessee Teacher Legacy Plan ^{/1}		100.0	101.1
Tennessee Teacher Retirement Plan ^{/1}		100.0	87.4
Texas County & District	106.0	107.5	102.5
Texas ERS	50.7	100.0	77.7
Texas Municipal	100.0	108.8	101.0
Texas Teachers	74.0	99.7	90.4
Utah Noncontributory	100.0	100.0	100.0
Virginia Retirement System	75.8	100.0	92.0
Vermont State Employees	130.4	164.6	126.0
Vermont Teachers	108.0	165.8	118.1
Washington LEOFF Plan 2	144.0	100.6	105.6
Washington PERS 1	50.0	101.2	94.1
Washington PERS 2/3	95.0	101.0	95.3
Washington School Employees Plan 2/3	90.5	101.5	94.8
Washington Teachers Plan 1	43.0	103.6	92.7
Washington Teachers Plan 2/3	99.0	101.0	95.7
Wisconsin Retirement System	100.0	100.0	100.0
West Virginia PERS	96.6	170.4	120.0
West Virginia Teachers	100.8	117.2	108.6
Wyoming Public Employees	81.0	84.8	80.4

Note: GASB Statement 67, which became effective in fiscal year 2015, eliminated the requirement that plans report aggregated employer contribution data for multiple-employer agent pension plans. As a result, this data is no longer reported in this brief for some plans that were previously included in this appendix.

^{/1} The structure of plans administered by the Tennessee Consolidated Retirement System was adjusted effective in FY 2015 from two plans—the State & Teachers plan and the Political Subdivision plan—to three: the Public Employee Retirement Plan, the Teacher Legacy Plan, and the Teacher Hybrid Plan. Also, pursuant to the note above regarding GASB Statement 67, data regarding the actuarially determined contribution for the Political Subdivision plan is not reported beginning in FY 2014. The values shown for the Tennessee Consolidated Retirement System reflect weighted averages for all plans for the respective periods for which information has been reported