

RESEARCH REPORT

Addressing and Avoiding Severe Fiscal Stress in Public Pension Plans

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January 2022 (Updated January 27, 2022)



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Acknowledgments

We are grateful to all our funders, who make it possible for Urban to advance its mission.

The views expressed are those of the authors and should not be attributed to the Urban Institute, its trustees, or its funders. Funders do not determine research findings or the insights and recommendations of Urban experts. Further information on the Urban Institute's funding principles is available at urban.org/fundingprinciples.

Don Boyd and Josh McGee managed the project and were the team's primary editors. Andrew Biggs was the lead author of the Current Financial Situation and Risk section. Amy Monahan was the lead author of Policy Options for Public Pension Plans in Severe Financial Distress section. All authors contributed to all aspects of the project and helped edit all sections of the report.

Jean-Pierre Aubry and the Center for Retirement Research at Boston College helped develop and provided data for the Risk-Zone Analysis portion.

We thank our advisers on this project, who gave comments on our plans and approach but bear no responsibility for the result: Jean-Pierre Aubry, Richard Briffault, Alicia Munnell, Anthony Randazzo, Brian Septon, and David Skeel.

Errata

The Acknowledgments section of this report was updated on January 27, 2022.

Executive Summary

Over the past two decades, state and local pension plans have experienced significant challenges. Pension debt and costs have risen precipitously, and in response, governments have reduced retirement benefits, especially for new public workers. Despite the more than decade-long bull market that followed the Great Recession, public pension funds remain severely underfunded, indicating that plans are unlikely to simply grow their way out of their funding problems. Stakeholders are recognizing that public pensions are riskier and harder to manage effectively than previously understood.

Governments must adjust policy and practice to better manage the risks associated with their pension plans—millions of public workers are counting on these plans to provide secure retirement income. In addition, rising pension costs can threaten other essential public services and investments, undermining community prosperity. In extreme cases, plans can run out of money, which would dramatically increase costs and make retirees' checks reliant on yearly budget allocations.

An important goal of this project is to identify options that governments can pursue if plans reach extreme duress. We examine significant options, but the most important conclusion is that there are not any good options once a plan reaches insolvency, and the ambiguity in these situations around financial priorities and legal authority makes it very difficult to arrive at an expeditious and fair solution. Therefore, this report pays particular attention to actions that can help plans and governments avoid crisis.

This report provides policymakers with actionable recommendations to help them address pension funding issues and avoid the worst-case scenarios. We first discuss the risks associated with public pensions and provide a simple rating system to help stakeholders better understand the financial risks their plans face. We then discuss the policy options and mechanisms available to governments whose plans face a solvency crisis, and the reasons those options are so limited.

Given the challenges of finding a reasonable solution when a plan reaches insolvency, it is best for governments to do everything possible to ensure that plans never reach that point. In the final chapter of this report, we outline policy options to avoid ever falling into a crisis, including options that can be implemented at the state, local, and federal levels. We hope this report helps policymakers and other stakeholders better understand pension funding risks and makes them aware of policy options that they could pursue to put pensions on firmer footing for generations to come.

Introduction

The past two decades have been challenging for public pension systems. By their own accounting, public pensions entered the 2000s fully funded on average, and public workers' retirement benefits were greater than ever after significant enhancements in the 1990s. Since then, however, pension systems' unfunded liabilities have grown steeply, and taxpayer costs have nearly quadrupled from roughly 5 percent of public employee payroll in 2000 to about 20 percent today.¹ The deterioration of pension systems' financial situation has not had a single cause, but instead was the result of many factors including inadequate funding policy, underpayment by governments, and a more challenging investment environment.

Despite these challenges, most public pension systems are not in crisis, and almost all systems have, among other things, reduced new workers' benefits, increased employee contributions, and improved funding policy. These changes have helped the situation, but public pensions continue to face significant financial uncertainty and, due to increased investment risk-taking, present a substantial budgetary risk for state and local governments.

Retirement benefits are an important part of workers' compensation, and public workers' retirement security rests on pension systems' financial stability. Likewise, taxpayers want plans with stable, predictable costs that will not crowd out important public services or require unanticipated tax increases. We hope this report helps policymakers to understand the risks pension systems face, identify policies to proactively manage those risks to meet the needs of both public workers and taxpayers, and understand options and potential consequences if risks are not managed successfully.

The report is organized as follows. The next chapter describes public pensions' current financial situation and the risks they face going forward. It also proposes a simple "red, yellow, green" rating system—based on the federal government's system for multiemployer pension plans—to better differentiate public pension systems by risk level. The third chapter discusses the limited options for dealing with pension systems in severe distress that may face insolvency. Finally, the fourth chapter describes several policy options that can help public pension systems avoid severe financial distress.

Current Financial Situation and Risk

The funding health of retirement plans for state and local government employees garnered significant public attention during the Great Recession and has remained a matter of public policy concern in the years that followed. Today, amid uncertainty spurred by the COVID-19 pandemic and the likelihood of continued low interest rates, public employee pensions remain substantially more poorly funded than they were in the early 2000s.

However, analysis of public pension funding is often overgeneralized, such that pensions as a group are held to be poorly funded, or that inadequate funding is dismissed as a problem of only a few poorly managed plans while most public pensions are well funded. The reality is somewhere in between and can only be assessed via system-by-system analysis rather than sweeping generalizations.

In this chapter, we discuss the burdens of public pension funding at two levels. First, any increase in pension funding requirements must entail a reduction in resources available for other purposes, be it funding for other government programs or reduced incomes of residents due to higher taxes. This relationship is commonly referred to as “pension crowd-out.”² We discuss crowd-out and factors that may exacerbate or ameliorate the effects of underfunded pensions on the ability of a sponsoring government to address those funding shortfalls.

A second, more extreme risk is that a public employee pension plan exhausts its assets and current benefits must be paid via a combination of employee contributions and contemporaneous government contributions. In most cases, funding a retirement system on a “pay-as-you-go” basis would significantly increase government costs relative to the levels that governments currently pay. We discuss the solvency risk generally and analyze the risk of pension insolvency on a system-level basis.

We conclude that no single factor can predict whether a public employee pension plan will reach financial distress, nor whether the plan sponsor will have the resources available to restore the plan to financial health. A combination of factors, however, can contribute to greater understanding of these issues, which is embodied in the simple rating system we propose.

Pension Funding Crowds Out Other Priorities

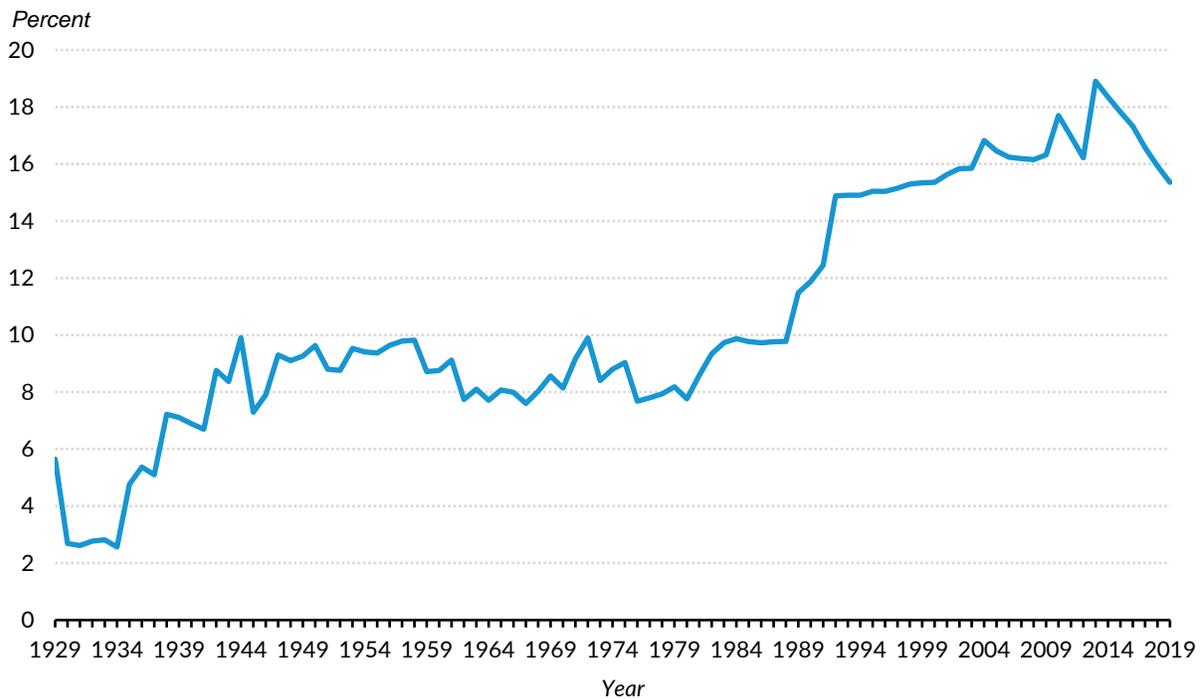
Over time, governments reallocate funds among priorities and change their levels of taxation. Some reallocations are responses to changing needs. For instance, as the population ages, the relative number of older residents increases. Even if government expenditures per resident remain constant, changing demographics would point toward greater government spending on age-related programs, such as the federal Social Security and Medicare programs, and less on programs for children.

However, changing population demographics do not explain why public-sector pensions should have grown more valuable on a participant-by-participant basis, yet that is what has taken place. The value of a pension benefit can generally be measured by the employer's share of the pension's normal cost (or service cost), which represents the discounted annual cost of annually accruing benefits, represented either in dollars or more often as a percentage of employees' salaries. Figure 1 relies upon Bureau of Economic Analysis (BEA) data to measure the average cost of the benefits state and local government workers earn each year as a percent of public worker wages (that is, normal cost). Figure 1 shows four rough periods of pension benefit value between 1929 and 2019.

Initially, the employer normal cost was about 6 percent of employee payroll, excepting a brief but sharp dip during the Great Depression. In 1940, the average normal cost of state and local government pensions increased to about 9 percent of employee wages and remained between 8 and 10 percent of wages through 1989. Shortly afterward, public pension benefit values increased sharply to about 15 percent of wages. Since then, the average normal cost of state and local government pensions has fluctuated, reaching nearly 19 percent of employee pay by 2013 but moderating to 15 percent by 2019.

FIGURE 1

Employer Normal Costs for Defined Benefit Plans, State and Local Government, 1929–2019



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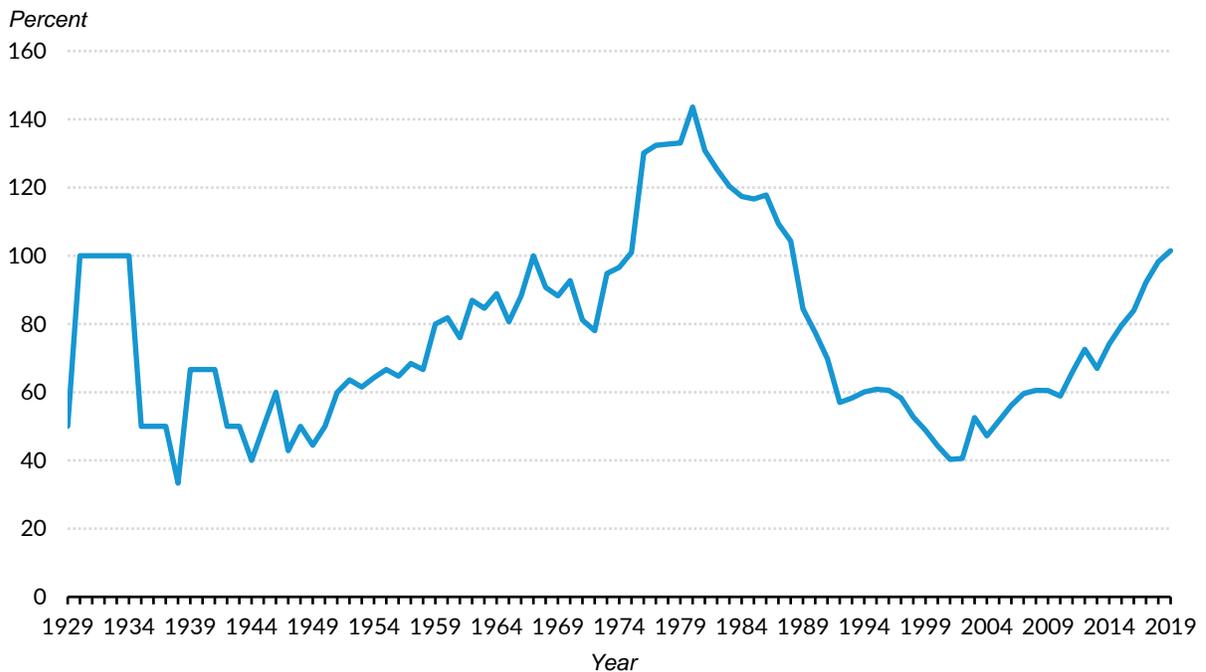
Source: Authors' computations from the Bureau of Economic Analysis's National Income and Product Accounts.

Some of the rise in the normal cost of public pensions was due to benefit increases. During good economic times, the terms of pension benefit formulas were sometimes sweetened, allowing employees to receive greater benefits or to retire earlier. Likewise, the normal cost of pensions also increases when interest rates decline, which has occurred over the past several decades.³ A guaranteed pension benefit becomes more expensive to the sponsor, and more valuable to the participant, when the interest rate available on alternate investments declines.

Although an adequately compensated public-sector workforce is important, if compensation per employee in the public sector rises faster than resources available to government, fewer resources are available either for taxpayers or for government to fund governmental purposes other than employee compensation.

FIGURE 2

State and Local Government Pension Contributions as a Percentage of the Employer Normal Cost of Accruing Benefits



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Source: Authors' computations from the Bureau of Economic Analysis's National Income and Product Accounts.

Moreover, on average, contributions to state and local government pension plans have not kept up with the rising benefits and the associated costs. Figure 2, drawn from BEA data, shows pension contributions from state and local governments as a percent of the employer's normal cost, which is the total cost of newly accruing pension benefits in each year net of pension contributions made by employees. State and local government pensions originally were operated on a pay-as-you-go basis, meaning that benefits were paid out of current receipts. In subsequent decades, state and local governments made efforts to prefund their pension plans to better ensure benefits could be paid when due and that each generation of taxpayers fully covers the cost of the services it enjoys.

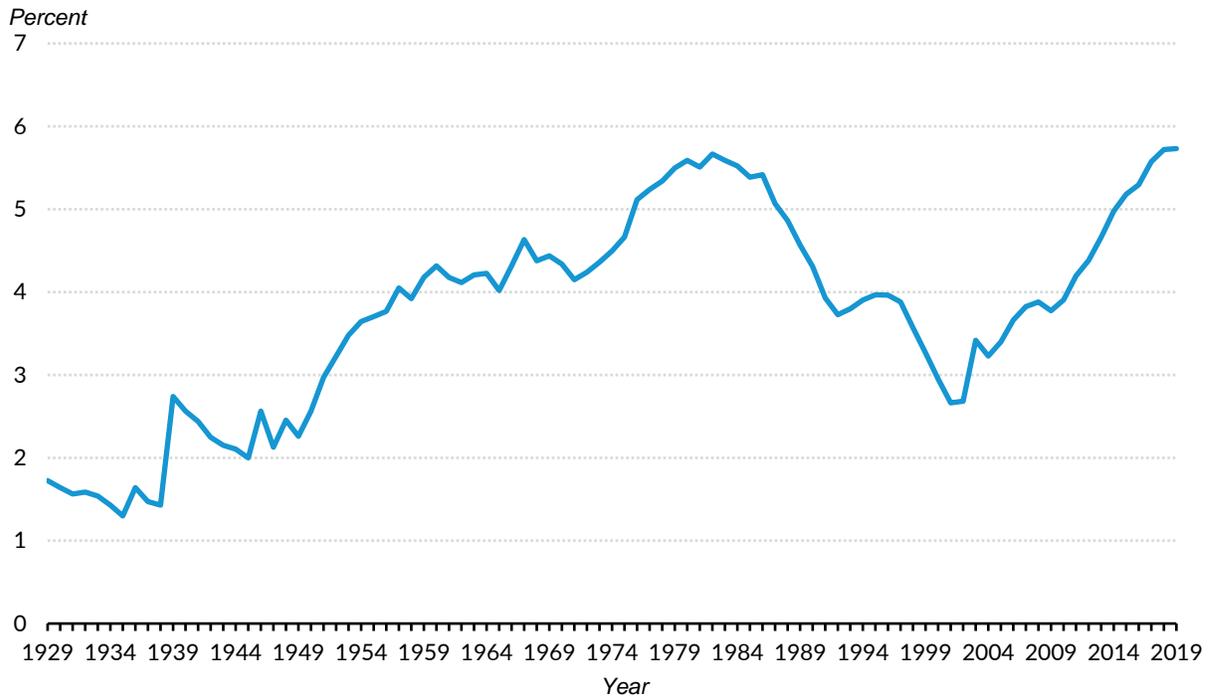
By the early 1970s, governments were at least making contributions sufficient to offset the costs of newly accruing benefits, and by the early 1980s they were contributing enough to fully fund new benefits and reduce unfunded liabilities from prior decades. However, as the value of public employee pensions increased beginning in the late 1980s, state and local governments increasingly fell short of fully funding new pension benefits as they were earned. By the early 1990s state and local governments were funding only 60 percent of newly accruing benefits, and by the turn of the century

funding declined to 40 percent. Since 2000, pension contributions have increased dramatically. Even so, state and local government contributions to public pensions are, on average, barely sufficient to fully fund the employer cost of new benefits, but not enough to meaningfully pay down past unfunded liabilities.

Though necessary given the rise in the value of public retirement benefits and pension debt, the large increase in state and local government pension contributions has the potential to crowd out other governmental activities. Although it is difficult to establish direct links between rising pension costs and specific reductions in other government programs, it is easy to establish the risk of pension crowd-out. Figure 3 shows pension contributions made by state and local governments as a percent of total state and local government expenditures, based on data from the BEA. Pension contributions have increased dramatically as a share of state and local government expenditure, from 2.7 percent in 2000 to 5.7 percent in 2019. A greater than doubling in pension costs as a share of government expenditures inevitably involves adjustments either in taxes or in other services provided to the public. However, 2000 was also a low point in state and local pension costs, with the pension share of government expenditure having fallen from 5.7 percent in 1982. Although the 1982 to 2000 period may have allowed state and local governments to expand services, the following two decades have seen an opposite effect.

A similar but more dramatic pattern is seen when employer pension contributions are expressed as a percentage of state and local governments' current tax receipts. From 2000 to 2019, state and local government pension contributions more than doubled from 4.3 to 9.0 percent of current tax receipts, above the previous high of 8.5 percent in 1982.

FIGURE 3
Employer Pension Contributions as a Percentage of State and Local Government Expenditures, 1929–2019



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Source: Authors' computations from the Bureau of Economic Analysis's National Income and Product Accounts.

Table 1, also based on BEA data, shows the growth from 1975 to 2019 of inflation-adjusted state and local government expenditures by function, along with the real growth of employer pension contributions.⁴ The growth of pension contributions by state and local governments exceeded the growth rates of most other categories of total government expenditures as well as increased spending in areas such as education, income security, and housing.

TABLE 1

Inflation-Adjusted Increase in State and Local Government Expenditures, 1975–2019*By function*

	Percentage increase
All	302
General public service	285
Public order and safety	454
Economic affairs	231
Housing and community services	168
Health	790
Recreation and culture	364
Education	299
Income security	353
Employer pension contributions	393

Source: Bureau of Economic Analysis. National Income and Product Accounts, Tables 3.17 and 7.24. Dollar figures adjusted to 2019 using the Personal Consumption Expenditures deflator.

Note: Reported increases in nonpension expenditures include employer pension contributions associated with each function.

Different states and localities faced different circumstances regarding pension funding and have responded with different choices. Some have chosen to shoulder pension costs, but at the price of crowding out other government services or raising taxes. Other governments have protected government services but allowed pension funding health to decline.

Governments' Ability to Pay

Whether a government can keep pension costs from crowding out other governmental activities depends in part on the size of pension commitments relative to the government's financial resources. A sponsor might easily bear increased pension costs if the pension is small relative to the jurisdiction's resources. However, a large and underfunded pension could pose a significant financial risk.

One way to analyze a government's capacity to support its pension plan is to compare the size of pension liabilities to some aggregated measure of the jurisdiction's economy. The BEA has performed such a calculation on a statewide basis, which is shown in table 2. This table provides each state's total pension debt as a percentage of the state's gross domestic product. All the pension funds within each state's borders are included in the numerator, so it abstracts a bit from which specific taxpayers are committed to paying. However, it does provide a useful summary of governments' ability to pay across all 50 states.

A state such as Illinois faces a dual threat, with large and poorly funded pensions. As a result, Illinois faces pension debt equal to 46 percent of Illinois gross domestic product (GDP). In contrast, several states have much lower pension debt relative to the size of their economy because their pensions are smaller or better funded or because they have more vibrant economies. For example, Delaware, South Dakota, and Indiana have unfunded liabilities relative to GDP that are less than one quarter those of Illinois.

TABLE 2
Unfunded Benefit Liabilities as a Percentage of State Gross Domestic Product, 2018

State	Percent of GDP
Illinois	46
Mississippi	38
Alaska	38
New Mexico	37
California	33
Hawaii	31
Kentucky	31
New Jersey	30
Rhode Island	29
Montana	28
Nevada	28
Connecticut	27
Ohio	26
Oregon	26
South Carolina	25
Missouri	25
Colorado	24
Michigan	23
Arkansas	23
Massachusetts	22
Louisiana	22
Alabama	21
Wyoming	21
Maryland	21
Pennsylvania	20
New York	19
Vermont	19
Arizona	18
Georgia	18
Minnesota	17
West Virginia	17
Maine	16
Kansas	16
Virginia	16
Florida	15
Iowa	15
North Dakota	15
Texas	15

Wisconsin	14
Oklahoma	14
New Hampshire	14
Idaho	14
Nebraska	14
Utah	12
Washington	12
North Carolina	12
Tennessee	11
Delaware	11
South Dakota	10
Indiana	9

Source: Authors' computations from Bureau of Economic Analysis data.

Another associated risk is whether a sponsor's underlying economic resources are mobile, such that they could relocate to other jurisdictions to avoid increased public-sector pension costs. Although this risk is difficult to quantify, in general, a smaller jurisdiction such as a town or city would face greater risk of population or business relocation than would larger jurisdictions such as counties or states. Thus, for instance, the city of Chicago likely faces greater relocation risk associated with pension funding than does the state of Illinois. Moreover, the types of businesses established within a jurisdiction may affect the level of relocation risk; service-related businesses could more easily relocate than firms such as manufacturing that employ a great deal of fixed capital. Conversely, capital-intensive firms may be less likely to locate into the state because leaving may be more difficult than for a service-related business. Relocation risk further limits a plan sponsor's ability to bear increased costs that might be associated with pension underfunding or, in extreme cases, the exhaustion of pension assets and the requirement to fund benefits on a pay-as-you-go basis.

The Fiscal Burden of Pension Fund Exhaustion

Although rising public employee pension costs can crowd out other government priorities, a true crisis is more likely to arise when a pension fund runs out of money. In that case, the sponsoring entity must bear the costs of paying current pension benefits out of current revenues, so-called "pay-as-you-go" financing. Using the Public Plans Data (PPD), we calculate how annual pension funding costs would change if pay-as-you-go funding became necessary.⁵

For each plan in the PPD in 2019, we calculate the annual actuarially required employer contribution, expressed as a percentage of employee payroll. We also calculate annual benefit and administrative costs as a percentage of payroll, which indicates the cost of the plan if funded on a pay-as-you-go basis. We then calculate the ratio of the two costs.

In most cases, funding pensions on a pay-as-you-go basis would imply substantial increases in the annual contributions that many governmental entities already have difficulty bearing. Among the 191 PPD systems for which data were available in 2019, the median actuarially determined contribution was equal to 19 percent of employee payroll, and the median ratio of annual benefit payments to employee payroll was 42 percent of payroll. This implies that funding requirements would, on average, double if a retirement plan was to run out of money.

The relative cost of pay-as-you-go funding is lower for plans with the highest current levels of required contributions, which often are those plans facing funding challenges either due to more valuable benefits or an accumulation of unfunded liabilities from prior years. Among the 25 percent of public plans with the highest current actuarially determined contributions as a percentage of employee payroll, funding benefits on a pay-as-you-go basis would raise costs by 60 percent.

Although this cost increase is smaller than the doubling of costs among the full universe of plans, public pensions with the highest current required contributions often are those facing the most difficulty in meeting their obligations. Thus, a 60 percent increase in annual costs—moreover, one that could not easily be avoided without reducing current benefit payments—could impose a significant cost burden on affected jurisdictions. Thus, although unlikely in most jurisdictions, the exhaustion of a pension plan's funds and the reversion to pay-as-you-go funding of employee retirement benefits could trigger a government-wide budget crisis.

Risk-Zone Analysis

Nearly every public employee pension plan in state and local government is underfunded. On average, plans report that they hold assets equal to about 75 percent of liabilities (Aubry and Wandrei). Using different valuation standards, the Federal Reserve Board's Financial Accounts of the United States⁶ finds that state and local government pensions were on average about 56 percent funded in 2020.

But merely being underfunded does not mean that a pension will run out of money. Some plans may recover, and others may continue with less than 100 percent funding but never fall to zero. The level of underfunding, and the direction in which plan funding is moving over time, help predict the likelihood that a given plan will become insolvent.

Whereas public pensions may report being 75 percent funded on average, public-sector retirement plans do not pool assets or liabilities. Thus, the well-funded public employee plans may

raise the average funding level, but those plans do not supply resources that would enable severely underfunded plans to avoid insolvency.

For these reasons, we need to review plans at the individual level and use multifaceted criteria to analyze their finances. In our view, no single statistic is sufficient to distinguish pension plans facing insolvency from those that are poorly funded but are nevertheless unlikely to face a funding crisis.

We borrow a set of criteria used by the federal government to analyze multiemployer pensions, which are retirement plans jointly established by labor unions and employers, generally across an industry, such as trucking or mining. Multiemployer pensions allow employees to change employers within an industry without losing pension coverage. Unfortunately, for a variety of reasons, several multiemployer pensions are poorly funded and some face near-certain insolvency. To analyze multiemployer pension funding the federal government created a set of color-coded funding health categories. The most poorly funded plans are designated in the red “critical” zone; the next category is orange, designated “seriously endangered,” followed by yellow (“endangered”), and green (“safe”).

The multiemployer risk-zone framework encompasses three key factors: the funded ratio, the adequacy of annual contributions, and the plan’s demographics. This three-factor approach recognizes that various measures are necessary to assess the overall funding health of a pension plan. A plan that is well-funded from a funded ratio standpoint may nevertheless receive a poor rating if the plan did not receive adequate contributions in recent years. Likewise, a strong contribution history might demonstrate that a plan sponsor is committed to restoring a poorly funded pension to financial health and thus garner the plan a more positive rating. Likewise, a strong history of contributions limits the risk that required contributions would rise dramatically in future years.

Finally, a plan may be placed in the red zone if, in addition to a poor funded ratio and inadequate contributions, the plan’s demographics are unfavorable. In general, a mature pension plan, one with a higher ratio of beneficiaries to active participants, is less able to bear financial or other risks owing to its higher rate of benefit payments relative to plan assets. A mature plan with a larger number of retirees has a shorter average duration of liabilities than a plan with younger participants, giving the mature plan less time to recover from investment losses. Moreover, a mature plan will tend to have a higher level of liabilities compared with the economic resources available to the plan sponsor. When liabilities are large relative to a sponsor’s economic resources, a given percentage decline in asset values due to a market downturn will place a larger proportionate strain on the sponsor’s ability to make up the loss.

Table 3 shows the formal risk-zone criteria applied to multiemployer pensions, which we will use to analyze the health of public employee plans. The lowest rating is deep red (critical and declining), which is applied to plans facing the threat of pension fund insolvency. These “deep red zone” plans are the plans that policymakers should be most concerned about.

TABLE 3
Public Plan Risk-Zone Criteria

Zone	Criteria for zone status
Deep Red (critical and declining)	Projected to become insolvent in 20 years <i>and</i> The ratio of inactive to active participants is more than 2 to 1 <i>or</i> the plan is less than 80 percent funded.
Red (critical)	Received less than 100 percent of the actuarially determined contribution (ADC) over the past 5 years <i>and</i> the funded ratio is under 65 percent.
Orange (seriously endangered)	Received less than 100 percent of the ADC over the past 5 years <i>and</i> the funded ratio is under 80 percent; <i>or</i> Received less than 100 percent of the ADC over the past 5 years <i>and</i> total contributions are less than normal cost plus unfunded actuarial accrued liability interest <i>and</i> the ratio of active to inactive present value of benefits is less than 1.
Yellow (endangered)	Received less than 100 percent of the ADC over the past 5 years; funded ratio is under 80 percent.
Green (safe)	All plans not included in the red, orange, and/or yellow zone.

Note: To standardize the threshold for funding deficiency, the actuarially required contribution is defined as the normal cost plus a payment to amortize unfunded liabilities within 25 years, assuming amortization payments increase 2.5 percent per year.

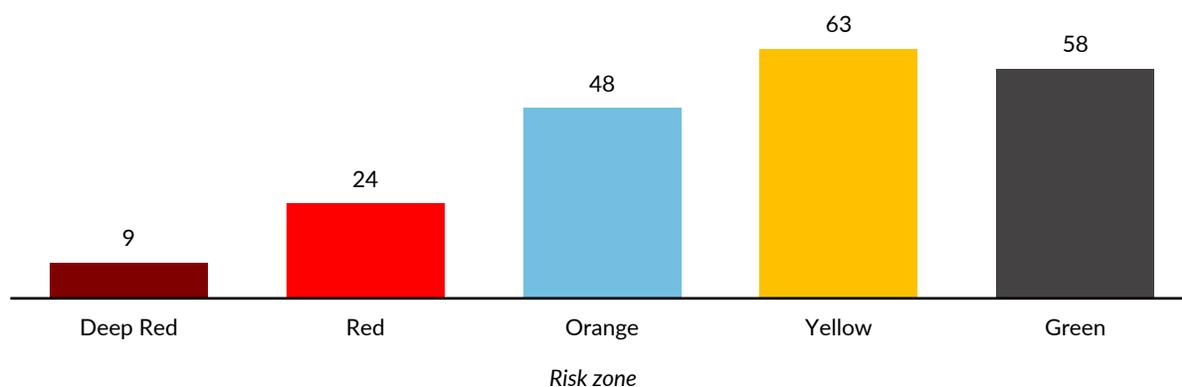
Plans rated in the red zone have both a funded ratio below 65 percent and poor contribution history or a combination of poor contributions and unfavorable plan demographics. These plans should also be of concern. Plans rated orange or yellow exhibit both insufficient contributions and a less than 80 percent funded ratio but are not as poorly funded as those in the red zone. All plans that are not categorized as red, orange, or yellow are designated as green, signifying levels of contributions and plan funding that are not deemed to pose a significant threat to solvency in the near term.

Using 2021 data, the multiemployer framework we utilize identified 9 plans in the deep red zone – suggesting that, even though many plans are poorly funded, few face the immediate risk of pension fund insolvency (figure 4). However, 72 public plans—or 36 percent of the PPD—are in the red or orange zones, designating significant risk of rising costs and worsening finances. Many of the red zone plans are known to be troubled, such as plans in Illinois, Kentucky, New Jersey, and the city of Chicago

that have very low-funded ratios. However, the focus on contribution adequacy puts some well-funded plans, like Minnesota State Employees and Arkansas Teachers, in the orange zone because their sponsoring governments regularly underpay the actuarially required contribution. Although the results of the risk-zone analysis undercut the narrative that all public pensions face a funding crisis, the fact that nearly half of public plans are in the red or orange zones undercuts a countervailing narrative that pension funding is healthy except for a few well-known bad actors.

FIGURE 4
Number of Major Public Plans by Risk Zone

Number of plans



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Source: Authors' calculations based on the Public Plans Data.

At the same time, the multiemployer rating system allows some plans with low-funded ratios and with significant unfunded liabilities, such as Connecticut SERS and Arizona Public Safety, to remain in the yellow zone because their sponsoring governments have consistently paid their actuarially required contribution. If these plans continue to make their full annual contributions and all actuarial assumptions prove to be accurate, over time these plans would be expected to reduce unfunded liabilities and move toward full funding.

Table 4 lists the plans in the PPD that are designated to be in either the deep red or red zones. A full listing of all plans is contained in the appendix. Although all public plans require careful consideration and strong stewardship, the red zone plans deserve particular attention from policymakers and other stakeholders.

TABLE 4

Plans Designated as Deep Red Zone or Red Zone

Plan name	Risk Zone	Funded ratio (%)	Percent of ADC paid over prior 5 years	Ratio of active employees to beneficiaries	Ratio of contributions to normal cost plus UAAL interest	Ratio of Non-Investment Cash Flow to Beginning of Year Assets (%)
Arizona State Corrections Officers	Red	52	84	0.88	0.77	0.68
Charleston (WV) Firemen's Pension	Red	13	78	2.64	0.86	4.62
Chicago Fire	Red	21	81	1.14	0.92	4.10
Chicago Police	Red	24	73	1.16	0.83	0.21
Chicago Teachers	Red	48	90	1.26	0.80	-4.79
Colorado School	Red	63	81	0.75	0.82	-3.44
Colorado State	Red	61	83	0.93	0.83	-4.34
Denver Employees	Red	62	99	1.55	1.01	-3.05
Hawaii ERS	Red	58	86	0.90	0.82	-1.15
Illinois SERS	Red	41	83	1.27	0.89	-0.65
Illinois Teachers	Red	42	81	0.88	0.77	-2.34
Illinois Universities	Red	44	93	2.14	0.86	-3.28
Jacksonville Fire and Police	Red	49	78	1.41	0.68	-3.07
Kentucky County	Red	50	98	1.41	0.84	-2.51
Kentucky Teachers	Red	57	93	0.98	0.86	-3.62
Massachusetts Teachers	Red	56	95	0.71	0.88	-2.84
Mississippi PERS	Red	63	93	0.84	0.88	-4.44
Missouri State Employees	Red	59	98	1.63	0.89	-4.45
New Mexico Educational	Red	62	85	1.03	0.79	-3.46
Omaha ERS	Red	54	93	0.87	0.88	-5.46
Omaha Police and Fire	Red	60	89	1.09	0.88	-0.65
Omaha School	Red	64	77	0.83	0.67	-2.62
Providence ERS	Red	26	100	1.24	0.90	-0.47
South Carolina RS	Red	57	97	0.84	0.96	-1.92
Chicago Municipal	Deep Red	22	49	1.46	0.55	-7.97
Dallas Police and Fire	Deep Red	41	76	1.12	0.81	-5.28
Detroit Police and Fire	Deep Red	67	61	3.89	0.43	-10.14
Jacksonville ERS	Deep Red	61	100	1.47	0.77	-5.54
New Jersey PERS	Deep Red	53	96	0.75	0.85	-4.36
New Jersey Teachers	Deep Red	39	71	0.69	0.75	-6.97
Oklahoma Fire	Deep Red	72	105	1.30	0.90	-7.52
Texas ERS	Deep Red	66	97	0.94	0.83	-4.28
Texas LECOS	Deep Red	59	59	0.42	0.43	-6.06

Source: Authors' calculations based on the Public Plans Data.

Note: UAAL = unfunded actuarial accrued liability.

Policy Options for Public Pension Plans in Severe Financial Distress

For this report, we define severe financial distress as a plan either exhausting its assets or being very close to doing so. When a plan is in severe financial distress, there are no easy solutions to bring benefit costs and government contributions into alignment. The potential policy levers include reducing other governmental spending to increase plan funding, raising taxes or increasing borrowing to increase plan funding, reducing benefits, increasing employee contributions, and obtaining federal assistance. The availability and desirability of these levers depend on both practical and legal considerations that are unique to each jurisdiction.

An underappreciated aspect of addressing severely distressed plans is the importance of the procedural mechanism used to craft the appropriate solution. These mechanisms include inaction, which leads to pay-as-you go pension funding; the standard state or municipal legislative process; municipal bankruptcy or functional state insolvency; a state or municipal financial oversight board; or a request for federal assistance.

We review both the available policy levers and procedural mechanisms for decisionmaking in the following sections, with certain guiding principles in mind. In our view, solutions for severely distressed plans should seek to protect already accrued benefits to the extent possible, involve shared sacrifice among stakeholders, and carefully consider the effect the proposed pension funding solution will have on the government's tax base and its ability to provide important governmental services.

The difficulties of bringing a severely distressed plan back to fiscal health that are examined in this part are important not only for policymakers in jurisdictions with distressed plans, but also for those in jurisdictions with only moderately stressed plans. An important takeaway from this section is that there are no good options once a plan's financial health has seriously deteriorated, which motivates our call for early action for healthier plans that we present later in this chapter.

Policy Options

The sections below outline the policy levers available when a pension plan is in severe fiscal distress. These options can be used in combination to bring benefits costs and contributions into alignment so that retirees' benefits will be paid when due.

Spending Reductions

Put in its most basic terms, a severely distressed pension plan has two potential solutions: increase the money going into the plan or decrease the money being paid out of the plan. As discussed in the previous section, one obvious way to increase the money going into the plan is to reduce other forms of governmental spending and shift those funds to the pension plan.

For this strategy to be successful, politicians would need to determine that addressing pension distress is a higher priority than competing spending needs. Given that state budgets pay for many essential services for residents, such as K-12 education, it may be difficult to convince legislators to shift spending priorities away from the broader population to specific employee groups. When such a shift occurs, residents who are paying the same taxes and receiving a lower level of services may exit such jurisdictions, potentially worsening fiscal problems by reducing the tax base in the jurisdiction. As others have observed, this effect is more likely to be seen in smaller jurisdictions, such as cities, rather than states.

Revenue Increases

Another policy lever available to governments with severely distressed plans is to increase revenue to increase plan funding. Such revenue increases can be accomplished either through tax increases or borrowing.

Borrowing, of course, may not be a viable path to fiscal stability given that it is replacing pension debt with a different form of debt. In addition, a government with a severely distressed pension plan may find it difficult to access credit markets on favorable terms. State constitutional debt limitations may also require the government to seek voter approval before incurring certain types of debt.

Tax increases solve some of these problems but, like spending reductions, are likely to be limited by political pressure. Legislators may be unwilling to raise taxes to pay for pensions, and jurisdictions may lose their mobile tax base if taxes significantly increase while services remain unchanged.

However, there may be creative strategies, such as enacting targeted sales or use taxes that are less politically salient than increases in broad-based taxes.

Benefit Reductions

Benefit reductions as a solution to severe financial distress raise both fairness and legal concerns. As an initial matter, it is helpful to distinguish between retroactive reductions to already accrued benefits and prospective reductions to the pension formula.

REDUCTIONS TO ACCRUED BENEFITS

Pension benefits that have already been accrued through services performed by the employee are generally entitled to the highest level of legal protection, making any such changes vulnerable to legal challenge. In most states, public pension benefits are granted legal protection on the basis that they are contractual in nature. This contractual label is important because the US Constitution explicitly prohibits states from passing any law that impairs the obligation of contracts,⁷ and many state constitutions contain similar language. As a result, where state law treats public pension benefits as contractual in nature, laws reducing those contractual benefits are generally unconstitutional.

However, the state, as sovereign, has the inalienable right to protect the health, safety, and welfare of its citizens—a right that cannot be contracted away. This inherent power, commonly referred to as the “police power,” allows the state to modify contracts—even its own contracts—when doing so is “reasonable and necessary to serve an important public purpose.”⁸ Practically speaking, establishing that an impairment is “reasonable and necessary to serve an important public purpose” is quite difficult. Courts do not simply defer to the legislature’s judgment on the matter.

To determine the reasonableness of the action, it is relevant whether the circumstances that necessitated the change “were unforeseen and unintended by the legislature” when the contract was formed.⁹ For example, if a state legislature has consistently underfunded a pension plan, it may be difficult to establish that it is reasonable to modify benefits to address that underfunding.

To establish that a state’s impairment of contract is necessary, the state must establish that no other less drastic modification could have been implemented and the state could not have achieved its goals without the modification.¹⁰ As summed up by the Supreme Court, “a State is not free to impose a drastic impairment when an evident and more moderate course would serve its purposes equally well.”¹¹ Saving money is not, by itself, sufficient justification.¹²

It has been extremely rare for a court to allow an otherwise impermissible reduction to pension benefits solely on the basis of the police power. The few rulings that rely solely on a state's police power to justify a change to pension benefits suggest not only that the government must make the fiscal case regarding why pension underfunding must be addressed but also that it must carefully study and model various alternative solutions to such underfunding. In these cases, the government has generally undertaken other measures to address the fiscal crisis prior to modifying pension benefits, such as reducing employee headcount, closing schools, increasing fees for city services, reducing salaries, and modifying health benefits.

The police power cases also emphasize that the pension funding solution should “not seek to benefit one group over others” and should be narrowly tailored.¹³ The Supreme Court of Rhode Island recently had the opportunity to review two cases involving the suspension of cost-of-living adjustments (COLAs) in severely underfunded municipal plans. In both cases, the court upheld trial court decisions that addressing public pension underfunding served an “important public purpose.” However, the court found the COLA suspension “reasonable and necessary” in one case, but not the other. The key difference between the two COLA suspensions was their duration.

The COLA suspension that was upheld was for a fixed, defined term of 10 years.¹⁴ The rejected COLA suspension was to remain in effect until the plan achieved a 70 percent funded ratio. Evidence at trial established that such funding ratio was projected to take 24 years to reach. The court found that, as a result, the city had not met its burden of establishing that this indefinite COLA suspension was reasonable and necessary and remanded the case to the trial court for a determination of an appropriate (and definite) length of time for the suspension.¹⁵ Although these decisions have precedential value only in Rhode Island, they suggest that a city or state seeking to justify an otherwise impermissible benefit modification as necessary to address a fiscal crisis structure might be well served by crafting such modifications to be temporary and definite.

In addition to the rarity of successful police power cases, there are two states—Arizona and Illinois—that provide absolute protection of pension benefits and do not recognize police power arguments as applied to such benefits. The supreme courts of both states have held that specific language in the state's constitution protecting public pension benefits is absolute and is not subject to the sovereign's police power. As a result, in those states, fiscal distress is not an available legal justification for reducing protected public pension benefits. It is unlikely, however, that any state without similar constitutional language would follow this precedent.

Even if one could surmount the legal difficulties inherent in reducing accrued pension benefits, such reforms are likely to generate significant opposition on fairness grounds. Employees agreed to perform work in exchange for promised salary and pension benefits and, once that work has been performed, changing the terms of the compensation deal will strike many as unjust.

PROSPECTIVE MODIFICATION OF BENEFIT FORMULAS

In general, prospective modification of benefit formulas is less problematic than retroactive benefit reductions both legally and practically, but that is not to say that such changes could be made easily or without legal challenge. Twenty-one states offer some form of legal protection for the rate of future benefit accrual, and 16 states allow prospective changes to the pension formula (Pew Charitable Trusts 2019). In 13 states, there is no relevant legal precedent regarding protections for future accruals, making the permissibility of such changes unknown (Pew Charitable Trusts 2019).

Despite the existing legal precedent that protects the rate of future benefit accrual in 21 states, there is a much better chance of severe fiscal distress justifying such prospective changes than there is of a court blessing a retroactive reduction in benefits. Recall that the police power test described previously allows pension changes that would otherwise be impermissible if reasonable and necessary to serve an important public purpose, and that the change must be the “least drastic” method of achieving the policy goal. It is reasonable to assume that a court would find a prospective change to a benefit formula to be less drastic than a retroactive change.

In addition to having a better chance of surviving a legal challenge, stakeholders are less likely to have fairness concerns regarding prospective benefit changes. The primary obstacle to prospective benefit formula modification may be that such changes may be insufficient to address the plan’s fiscal distress. Such changes likely would need to be used in combination with other plan adjustments to achieve fiscal stability. In addition, employee morale likely would be harmed by changes that make a pension benefit less generous going forward.

Increased Employee Contributions

Although reducing benefits or modifying benefit formulas can help address the liability side of the pension equation, increasing employee contributions can improve fiscal stability by increasing plan assets. However, some states protect the employee contribution rate as part of the pension benefit. In other words, some states treat an increase in an employee’s required plan contribution no different than they would treat a reduction in the pension benefit formula. Because such changes are by their

nature prospective, they would be more likely to survive legal challenges than retroactive changes. However, because such changes operate as a reduction in total employee compensation, they are likely to cause employee dissatisfaction and opposition.

Federal Assistance

It is possible that the severe financial distress of a state pension plan could be addressed through various forms of federal assistance. The federal government might offer either a loan or an appropriation to the plan, although if it did so it seems likely that the federal government would also impose various conditions on the state in return, in large part to ensure that the state addresses the issues that led to such fiscal distress. The federal government might also set up some type of voluntary fiscal oversight mechanism to assist with a state's fiscal difficulties.

Although this type of assistance is possible, it would face significant practical hurdles. Federal legislators may be very hesitant to intervene for fear of generating moral hazard, rewarding irresponsible funding practices, and creating inequity among states.

Procedural Mechanisms

Although there are a variety of policy levers that can be used either alone or in combination to address a plan's severe fiscal distress, it is important that a jurisdiction thoughtfully consider which procedural mechanism is best suited to craft the appropriate response. And in some cases, the mechanism chosen can influence which policy levers are available. In the following sections, we review the likely mechanisms and their benefits and drawbacks.

Inaction

The choices and tradeoffs involved in responding to a severely distressed pension plan are difficult as a result there may be either an unwillingness or an inability for lawmakers to take on the task. Such inaction would eventually lead to the depletion of the pension trust fund, and would shift the pension to pay-as-you-go financing.

As discussed previously, the switch to pay-as-you-go status is likely to significantly raise current pension costs for public employers. In the case of severely distressed plans, it is unlikely that contributing governments could pay the increased costs associated with pay-as-you-go status. It is

important, therefore, to understand how a failure to address a severely distressed plan prior to trust fund depletion might affect plan participants.

Although accrued public pension benefits are often entitled to very strong legal protection, the ability to enforce those rights changes dramatically if the trust holding the plan assets is depleted. State and local pension plans are required to hold their assets in trust under federal tax law. The trust serves to safeguard plan assets and ensure they are used only to pay plan benefits and reasonable plan expenses. So long as sufficient funds remain in the pension trust, plan participants and beneficiaries can relatively easily enforce any pension rights they might have. For example, if a state attempts to impermissibly reduce benefits, a participant could challenge the reduction in court, and the court could easily order payment from the pension trust of the protected benefits.

When a pension fund is depleted, however, courts have little ability to provide pension plan participants with a remedy in the event of pension reduction or nonpayment (Monahan 2017). Assume, for example, that a pension plan participant has a clear legal right to her currently accrued plan benefit. Further assume that the trust holding this participant's pension fund assets is depleted and therefore ceases benefit payments. The participant could go to court challenging the pension nonpayment on constitutional grounds, and the court would likely find that such nonpayment is, in fact, unconstitutional. But courts have very little ability to force a state or city to make a monetary payment.

Under state law, only the legislative branch has the power to appropriate funds or impose taxes. A court could order the legislature to appropriate funds, and even attempt to hold the legislature in contempt if it fails to do so, but the court lacks power to directly order the payment of benefits and it is even limited in its ability to effectively impose a contempt sanction against a legislator or the legislative body. As a result, it would ultimately be the legislature's decision whether to allocate funds to pay pension benefits in the event of fund depletion. There may be strong political pressure for the legislature to do so on fairness grounds, but pension payment would become a *political* decision rather than a legal entitlement if pension assets are depleted.

State or Municipal Legislation

Typically, pension funding issues are addressed through the normal legislative process. In general, such plans are established through legislation, and therefore legislation is the normal vehicle through which to adopt amendments, allocate funding, and set contribution rates.

Whether the standard legislative process is the best approach to addressing a severely distressed plan will likely depend on both the specific circumstances of the distressed plan and the norms of the relevant legislature.

The complexity of pension funding and the need to balance competing interests might suggest that a purpose-specific body might be better suited to the task. If the legislature is not well-equipped to study the issue in detail and solicit input from a broad array of stakeholders, the standard legislative process may not be the best path forward. In addition, given the likelihood of a legal challenge in the event of any type of benefit reduction or increased employee contribution, it is important for the process to include a well-developed record that explains what was considered and how the adopted solution was decided on.

Bankruptcy/Functional Insolvency

The ability to modify public pension obligations in bankruptcy is limited. State governments are ineligible for federal bankruptcy procedures, and cities and other municipalities may declare bankruptcy under Chapter 9 of the federal bankruptcy code only if they are insolvent and the state has consented to the filing.

Although states are not able to declare bankruptcy, states can become functionally insolvent.¹⁶ Because states are sovereign governments, they have the ultimate authority to determine which debts will be paid and in what order, absent some type of binding legal commitment.

Just over half of all states have standing statutes in place allowing eligible municipalities to file for Chapter 9 bankruptcy. Where such authorization is not already in place, a municipality seeking to declare bankruptcy would first need to seek the appropriate state authorization.

Municipal bankruptcy differs from other forms of corporate or individual bankruptcy because it involves an arm of the state. As such, Chapter 9 does not authorize courts to force a bankruptcy plan on a municipality. Rather, the municipality has the authority to propose and accept a plan to address its debts. A court may approve a Chapter 9 bankruptcy plan proposed by the municipality over the objection of creditors when the plan has been approved by at least one class of creditors and the court determines that it is fair, equitable, and in the best interest of the creditors.

Existing precedent holds that public pension obligations are no different than any other contractual obligations for purposes of bankruptcy and therefore they are eligible for modification in

Chapter 9.¹⁷ Despite this theoretical ability to modify pension benefits, we have not seen significant pension reductions in the recent major municipal bankruptcies.

In cities such as Stockton, California, and Detroit, Michigan, there were sizable pension debts, and initial discussions and proposed workouts called for significant cuts to pension benefits. However, as each bankruptcy was negotiated, pension benefits were largely protected, even in the face of objections from other unsecured creditors. This illustrates an important point about the limitations of bankruptcy. Although it may be legally permissible to shed pension debt in Chapter 9 bankruptcy, there are political and practical reasons for a city to avoid such reductions when possible. For example, it may strike many stakeholders as unfair to treat city worker compensation in the same manner as debt owed to commercial lenders. It may also be difficult for a city to maintain its workforce if employees believe that their compensation may be retroactively reduced.

THE UNCERTAINTY OF DEBT PRIORITY

Irrespective of whether insolvency is addressed through the state's exercise of its sovereign powers or through formal municipal bankruptcy, perhaps the greatest challenge is uncertainty. In a time of true fiscal crisis, there is uncertainty regarding the seniority, or the order of payment when there is not enough money to go around, between pension participants and holders of explicit government debt. In any broader fiscal crisis, conflicts between pension participants and bondholders are almost certain to take place as either party attempts to position itself for first claim on the financial resources available to the government. This has shown itself to be the case in Detroit, Puerto Rico, and other governmental bankruptcies.

In most cases, seniority of payment between pension participants and holders of explicit government debt is not established with clarity. As discussed previously, many state constitutions grant pensions a contractual status that in some cases guarantees not only benefits that have been accrued to date, but also the right to accrue future benefits on the same terms that were in place at the time the employee began government service. However, constitutional protections do not necessarily order pensions above other creditors. Government debts also are contracts, with the same general constitutional protections as pensions. Moreover, when a government institution becomes insolvent—and whether it avails itself of a formal bankruptcy process or attempts to impose its police powers to reduce its liabilities—that is a process in which contractual obligations to bondholders, pensioners, or other creditors may be adjusted. *Thus, constitutional provisions grant pensions a higher effective status than other forms of government spending during times of ordinary government operations. But in a fiscal crisis, in which a government lacks the ability to meet all its financial obligations and may be*

able to pay either pension participants or bondholders, but not both, the relative status of pensions versus explicit debt is less clear.

And yet, it is this status that is often the central question in a bankruptcy such as in Detroit or Puerto Rico. A governmental default does not imply that the governmental entity lacks the ability to service any debt; rather, merely that that government is unable to pay all debt on time and in full. Thus, in a debt crisis, different groups of creditors will jockey for position to claim the financial resources that are available. Pension participants and bondholders, as the largest groups of governmental creditors, would almost certainly come into conflict over which group should be paid first.

In certain cases, such as the bankruptcy of Stockton, California, pensioners were given almost absolute precedence over bondholders, with pension participants being subject to no adjustment to their accrued benefits while bondholders suffered significant reductions to their claims. Cuts were allowed both to pensioners and to bondholders in the Detroit bankruptcy, though some may argue that pension participants received more favorable treatment. This favorable treatment occurred in part because of side deals designed to benefit pension participants, but also because although the city of Detroit was bankrupt, the city's pension plans themselves, although underfunded, were not insolvent.

In Puerto Rico, both the commonwealth government and the various public employee retirement plans were effectively bankrupt. Even five years after the government of Puerto Rico ceased servicing its debt, the relative priorities of pensions and bonded debt have yet to be decided in full, though it is almost certain that retirees will receive more favorable treatment than other creditors. In part, this decision is attributable to political and economic considerations—nearly all Puerto Rico pension participants live on the island and have modest incomes, while many bondholders are more affluent and live off-island.

Moreover, the financial oversight board for Puerto Rico established under federal law does not provide the board with absolute power to make such decisions; the Puerto Rico government itself has a role in the process and is nearly unanimous in opposing any reductions in pension benefits, however modest. However, there are also macroeconomic considerations that might favor pensioners. Dramatic reductions in incomes for a large segment of a local population would affect the overall economy, tax revenues, and the government's ability to service its financial obligations, including to bondholders.

An actual fiscal crisis is far more complex than the simple bondholders versus pensioners scenario outlined here, with bondholders not only battling against pension participants for recoveries but also battling against other bondholders with competing types of claims and different levels of securitization. The complexity of a government-wide insolvency is difficult to overestimate, which only enlarges the fiscal and economic benefits of addressing pension funding issues prior to a general fiscal crisis taking place.

Fiscal Oversight Board

The use of a government-created financial oversight board may offer an additional mechanism to prospectively adjust pension benefits, but from a legal perspective this mechanism is the least well tested of the various pension adjustment mechanisms. To date, none of the state-level financial oversight boards have proposed or adopted pension modifications for current employees. However, several municipalities have utilized some type of financial oversight board or emergency financial manager to address fiscal distress, and these oversight boards have implemented changes to pension benefits and retiree medical benefits.

Typically, a municipal financial oversight mechanism is authorized by state statute to assist a fiscally distressed municipality, and the state statute generally grants broad powers to the overseer. There have been a small number of cases in which a municipal financial overseer has implemented changes to retiree medical benefits and those changes have been challenged in court by retirees. Whereas the cases to date have involved retiree medical benefits and not pension benefits, the cases have used the same legal analysis that would apply to pension changes. Specifically, the retirees have claimed that they have a contractual right to their retiree medical benefits, and that the financial overseer's changes have unconstitutionally impaired those contractual rights.

In each of the reported cases we identified, the court applied the standard police power analysis to evaluate the permissibility of these changes.¹⁸ In other words, the fact that such changes were authorized by state statute for a fiscally distressed municipality does not automatically override the legal protection otherwise granted to these benefits. For the changes to be permissible, the municipality must establish that they were reasonable and necessary to serve an important public purpose. As we have seen in pension litigation generally, courts in these cases focused on whether the government considered other alternatives before reducing retiree benefits. In the city of Flint, for example, the government was eventually able to enact certain changes to retiree medical benefits

after the city demonstrated that “its abilities to raise revenue and or cut expenditures is presently severely curtailed.”¹⁹

Although we do not have any examples of a state-level financial oversight board empowered to address a state’s fiscal distress, there is no reason to believe that the legal analysis would be any different than that used in the municipal cases. In those states that protect the rate of future benefit accrual, a state financial oversight board would need to establish that it was reasonable and necessary to reduce future benefit accruals to address a fiscal crisis, and the record would need to reflect both the need for the change and why it could not be appropriately addressed through other mechanisms.

Given the existing legal precedent, it appears that the primary advantage offered by a financial oversight mechanism is to allow potential changes to accrued pension benefits or future pension accruals to be considered as part of a broad, holistic process informed by experts and relevant stakeholders, with a particular emphasis on considering different potential approaches to addressing fiscal distress.

A well-designed financial oversight body might provide more thoughtful deliberation and a better evidentiary record than a typical legislative process. Nevertheless, it remains the case that where existing law prohibits changes to pension benefits or pension formulas, the burden of proof will be on the government to establish that such changes are reasonable and necessary to serve an important public purpose.

Request Federal Assistance

In the case of a severely distressed plan of a fiscally distressed jurisdiction, the state could request assistance from the federal government either in working out the jurisdiction’s overall fiscal distress, or to specifically assist with pension funding.

Although the federal government clearly can assist fiscally distressed states or municipalities, it is far from certain that the federal government would be willing to provide such assistance. Requesting jurisdictions would need to be prepared to make the case for federal intervention and be prepared to agree to various terms and conditions in return for such aid.

The federal government is most likely to intervene when the fiscal distress is of a magnitude sufficient to affect the broader national economy. For example, the functional insolvency of a large state likely rises to the level of federal interest. But a perceived bailout of a state that was fiscally irresponsible for years may be a very difficult political sell.

Political opposition might be countered through significant concessions by the requesting jurisdiction. For example, federal aid might come with significant federal fiscal oversight for years into the future. Or, if the need for assistance is directly related to pension underfunding, the federal government might prohibit the state from continuing to offer traditional defined benefit pension benefits going forward. Although federal assistance could take any number of forms, it seems clear that political obstacles will be the most significant consideration.

The Need for Action Prior to Pension Insolvency

As we discuss in more detail in the next chapter, it is important that, where needed, public employee pension reforms are enacted well before a plan reaches a crisis stage. The importance of early action is highlighted by several facts.

First, in certain states, public employee pension liabilities are sufficiently large that the insolvency of the pension plan could lead to the insolvency of the sponsoring government itself. A state-level insolvency would be massively disruptive to governmental services and the state's economy, with the potential for economic disruption to cross state lines and demand a federal government response.

Moreover, were a government-wide insolvency to occur, pension participants are only one of many claimants on government resources, competing against creditors and stakeholders in current government programs such as health and education for resources that are insufficient to support all claims. Early reforms to public employee pensions could prevent pensioners from being forced to compete against other unsecured creditors for scarce government resources.

The current circumstance in Puerto Rico, in which both the commonwealth's main employee pension plan is insolvent and the government itself declared de facto bankruptcy in 2016, illustrates the difficulties that can occur. As in most of the United States, in Puerto Rico the relative seniorities of pension obligations and explicit government debt were not made clear prior to the government's insolvency. This uncertainty may have contributed to relative complacency among both pension participants and bondholders prior to insolvency because both may have believed they were likely to receive priority if public resources were insufficient to pay both. Following insolvency, this uncertainty remains and is likely to be resolved only in court, with years of delay. Lacking such a resolution, both pensioners and bondholders seek to gain access to funds to resolve their claims. Such a situation could be expected to reoccur if a state became insolvent.

Early resolution of pension underfunding also is helpful because of the limited legal options available to pension participants. Unfortunately, participants in public pensions have little legal recourse to address underfunding or plan mismanagement prior to an insolvency because their benefits have not yet been affected. However, once insolvency occurs, even a legal finding of fault on the part of government officials or plan managers would not generate the financial resources necessary to pay the plan's full benefit obligations. Thus, early action to address plan underfunding poses far fewer risks to pension participants than does a wait-and-see approach.

Policy Options to Help Avoid Financial Distress

The second chapter presented a framework for categorizing pension systems according to their funding risk, and the previous chapter made the case that when plans reach severe fiscal distress, policymakers have limited options. It is, therefore, imperative that pension systems that are not in the green/safe category begin working with their sponsoring government to improve funding and reduce risk as quickly as possible. Although systems in the green/safe category are currently healthy, most of them still have substantial unfunded liabilities and face an uncertain investment environment. These systems and their sponsoring governments should take steps to reduce risk and improve long-term sustainability. This chapter discusses steps that pension systems and their sponsoring governments can take to improve funding and reduce risk and it explores potential federal role in the management of public pensions.

State and Local Policy Options

Public pension policy is almost wholly in the purview of state and local governments. Unlike most developed countries, the U.S. federal government does not play much of a role in managing public pensions, although some options will be discussed in the next section. State and local policymakers have significant capability to manage the benefits, funding policies, and investment policies of the pension plans they sponsor. However, many decisions related to public pension management have traditionally been ceded to the pension systems themselves. The funding challenges that public pensions have faced over the past two decades highlight the need for a more collaborative approach to pension management that includes the sponsor in key decisions around funding and investments, considers risk more fully, and has policy guardrails that keep funding from getting too far off track. This section considers policy options that state and local governments could implement to keep pensions healthy, protecting public workers, retirees, and taxpayers.

Funding Policy

Pension funding policy has been a primary driver of the funding challenges public pensions face. The issue with pension funding is twofold. First, pension systems have consistently underestimated pension costs, and second, sponsoring governments have underpaid even those estimated costs.

Policy options exist to help address both challenges and those options are discussed in the following sections.

ADOPT BEST-PRACTICE FUNDING POLICY

Pension funding policy is complex and relies on numerous assumptions about the future (for example, investment performance and mortality). However, experts from a diverse set of organizations, including the Government Finance Officers Association, National Governors Association, and Society of Actuaries (SOA), have developed best-practice recommendations that policymakers can use to guide funding policy.²⁰ A pension funding policy has four primary components: (1) an actuarial cost method, (2) the discount rate used to calculate liabilities, (3) the funding target, and (4) an amortization schedule. These components are used to calculate the annual contribution needed to fund the system, which is generally referred to as the actuarially determined contribution (ADC).

The actuarial cost method is used to estimate the cost of new benefits workers earned annually. Experts recommend that plans use the Entry Age Normal method, which spreads costs over the expected length of a cohort of employees' careers. Using this method smooths costs evenly across employees' working lives.

The discount rate is used to calculate the value of the benefits that employees have already earned (that is, liabilities). Higher discount rates result in lower estimates for the value of accrued benefits and thus lower annual costs; but using a higher rate also increases the risk that actual benefits costs will exceed expectations. Best practice is to report the value of liabilities using prevailing interest rates on debt. The SOA Blue Ribbon Panel on Public Pension Plan Funding recommended that the discount rate used to set funding be based on prevailing interest rates plus a prespecified risk premium.

The funding target sets the target percentage of liabilities for which the pension plan has assets. Experts recommend that plans aim for 100 percent funding, where they have assets on hand to match estimated liabilities. Targeting full funding ensures that each generation of taxpayers fully pays for the services it receives.

Pension costs are uncertain because many components that contribute to the overall cost of a long-term benefit promise are unknown (for example, investment returns, mortality, salary growth). Because of this uncertainty, pensions need a process for aligning realized cost with contributions. This process is called amortization, whereby any unexpected shortfalls/gains are paid off over time. Experts recommend that pension plans use layered amortization (that is, an amortization schedule for

each year with a shortfall/gain) with a closed payoff period of no more than 20 years. Shorter periods of 10 to 15 years are preferred.

Each of these components of pension funding policy could be regulated in state or local law and doing so would help address the consistent understatement of pension costs. Several jurisdictions have already implemented changes that either explicitly define acceptable practice in these areas or assign authority to a policymaker or official body to do so. For example, Houston's recent pension reform law establishes guidelines for the discount rate and amortization,²¹ and a 2017 law in Michigan required the treasurer to set uniform actuarial assumptions for the state's systems (Khoury 2018).

SEPARATE EXISTING UNFUNDED LIABILITIES FROM GO-FORWARD BEST-PRACTICE FUNDING POLICY

Unfortunately, the large unfunded liabilities that plans currently carry present a serious hurdle to adopting best-practice funding policy. Steps like reducing the discount rate and adopting short, closed-period amortization would result in steep cost increases if existing unfunded liabilities are included in the new schedule. However, there is a simple solution to this issue—separate existing unfunded liabilities and place them on a somewhat longer payoff schedule.

Pensions' current financial challenges should not stand in the way of making changes that would improve sustainability and thus retirement security over the long term. Existing unfunded liabilities are the result of unexpected economic change and poor decisionmaking over the past several decades. Asking the current generation of workers and taxpayers to bear all the cost of paying off that debt is unfair. It is more reasonable to spread that debt over a longer period (for example, 40 years or less) while also adopting better funding policy going forward.

REQUIRE RESPONSIBLE PAYMENTS

Better pension cost estimates can go only so far if government sponsors do not fully pay for their promises. States can commit in law to making the actuarially determined contribution based on the best-practice funding policy described previously. Although state legislatures cannot force future legislatures to make the payments, placing the commitment in law establishes the expectation that they will and creates a political cost for not doing so.

States, on the other hand, can force local governments to pay the full ADC every year. For example, Illinois requires local governments to pay the ADC to the Illinois Municipal Retirement Fund, and as a result, that plan is 94 percent funded in a state known for its severely underfunded pension plans.

Investment Policy

Pension systems invest assets to earn a return that can offset the ongoing costs of the plan. Over the past several years, these investments have gotten much riskier. Interest rates have fallen substantially, making it harder to earn returns like those plans earned in the second half of the 20th century. Instead of fully adjusting return assumptions to reflect the new interest rate environment, plans increased portfolio risk to reach for higher returns. This action has arguably resulted in plans with much higher risk profiles than policymakers and taxpayers are prepared to cover. Much of state and local government underpayment of pension contributions is likely attributable to large, unexpected cost increases due to riskier investments.

Given that pension systems' investment risk has large implications for government budgets and taxpayers, systems and their sponsoring governments must do more to establish acceptable boundaries for investment practices and appropriate risk levels. States could require that plans, working with their sponsoring governments, adopt formal investment policies that explicitly consider risk and the sponsor's ability to cover the downside.

Accountability and Ex Ante Plans to Manage Adverse/Positive Experience

Pension plans are long-term endeavors and sponsoring governments value consistent costs. Together these factors often lead pension policy to react slowly to changing conditions. When it becomes apparent that change is necessary, the situation can be much worse than if action had been taken earlier; decisionmaking around changes in crisis situations is generally ad hoc and messy, making it hard to appropriately balance the interests of all stakeholders. Establishing processes for monitoring pension finances and making changes prior to reaching a serious inflection point could help avoid these crisis moments and distribute the impacts of any changes more fairly. This section discusses policies to increase transparency around risk and accountability for prudent decisions and sets in place rational processes for managing a negative/positive experience.

ADOPT FINANCIAL STRESS TESTING

Public pension systems' financial projections are often deterministic and do not fully consider the implications of risky investment returns and their impacts on plan cost. As a result, pension boards, system management, and sponsoring governments do not have a complete picture of pension cost uncertainty or potential outcomes, which inhibits their ability to make prudent decisions. Stress testing, a term repurposed from financial institution reporting requirements instituted following the

Great Recession, simply means that pensions should produce multiple scenario analyses to help stakeholders better understand how investment risk could affect costs.

Twelve states have adopted a pension stress testing requirement, and several have already produced stress testing reports.²² For example, Connecticut has collaborated with the Pew Charitable Trusts to produce its pension stress testing report, which showed that although recent reforms have helped stabilize the State Employee Retirement System (SERS), the state still faces considerable risk, especially related to the Teacher Retirement System.²³

ESTABLISH SIMPLE RISK SHARING MECHANISMS

Public employee retirement systems have grown very large relative to the budgets of the governmental entities that sponsor them. In the mid-1970s, pension assets were equal to about 50 percent of state and local government budgets; today, pension funds are equal to roughly 150 percent of state and local budgets. Because governments generally bear the risk of public pension investments, the growth of pension funds relative to the budgets of their sponsoring entities implies a proportionate increase in the degree to which a decline in pension assets can destabilize the budget of its sponsor. For instance, if a pension fund is equal to 50 percent of its sponsor's budget, a 10 percent decline in the fund—which must be made up by the sponsor over time—will have an effect equal to 5 percent of the budget in the year in which the asset decline occurred. If the pension fund triples in size to 150 percent of the sponsor's budget, that same 10 percent fall in asset values would have three times the impact on the budget.

Put another way, governments and employees often split the cost of funding newly accruing benefits, the so-called “normal cost” of the retirement plan. The required contribution is calculated based on the assumed return on the plan's investments. However, in future years only the government must increase its contribution if the plan's investments fail to achieve the assumed rate of return. If the government and employees each pay half of the normal cost, this implies that the risk borne by the government is twice the risk of the plan's investment portfolio and these investments have themselves grown increasingly risky over time as public pensions have shifted, first from bonds to stocks and more recently from stocks to alternative investments such as private equity and hedge funds.

It is understandable that governments might wish to reduce some of this risk. They are free to do so now by shifting their pension funds to less-risky assets, but the lower expected return on these assets would increase required contributions by the government. An alternative that some pension sponsors have explored is sharing a portion of this investment risk with pension participants.²⁴

In some cases, such as in Utah and Nevada, required contributions by employees can vary based on the funded status of the plan. This concept is interesting, in that it potentially limits or caps the government's liability to the plan and thus may serve to segregate the plan financially from other parts of the government budget. For instance, in Utah's reformed hybrid pension system, the government's annual contribution is set at 10 percent of employee wages. If the employer cost of the plan falls below 10 percent of payroll, the difference is deposited in employees' defined contribution accounts. But if the cost of the plan increases such that the employer contribution would otherwise rise above 10 percent of wages, the excess cost must be borne by employees via higher contributions. It is unclear whether this limitation on the government's obligation to service plan liabilities would be legally sufficient were the plan to become insolvent. However, the chances of a plan structure such as Utah's becoming insolvent are reduced because employee contributions increase as funding challenges present themselves.

In other places, such as Wisconsin and South Dakota, risk is shared with retirees, who receive COLAs to their benefits based on the plan's funding health. Although this approach does not legally limit the government's responsibility to contribute to the plan, changes to COLAs can have rapid and significant effects on plan funding, such that if carried out early enough the risk of insolvency may be reduced significantly.

In many other states, employee contributions have been increased in response to pension underfunding, even if the increase is not indexed directly to investment returns or to the plan's funded status. From 2001 to 2020, the median employee contribution rate recorded in the PPD increased from 4.1 percent of wages to 6.9 percent. Employee contribution increases offset about one-fifth of the increase in total required employer contributions, which at the median increased from 7.7 percent of payroll in 2001 to 19.1 percent in 2020.

In theory, risk-sharing can have important financial benefits to retirement plan sponsors, albeit at an equal and opposite cost to pension participants. This can easily be demonstrated by looking at the funded status of plans when pension liabilities are discounted using the assumed return on risky investments versus the same figures when liabilities are discounted at the yield on safe investments, specifically bonds.

For instance, the actuarial firm Milliman calculated that as of mid-2020, state and local government pensions reported being 70 percent funded, based on a median discount rate of 7.25 percent derived from pension portfolios consisting of approximately three-quarters risky investments (Sielman 2020). By contrast, the Federal Reserve Board's Financial Accounts of the United States

dataset, which discounts public pension liabilities using a 4 percent interest rate derived from corporate bond yields, indicates that state and local pensions were only 49 percent funded during mid-2020.

The difference between the Federal Reserve Board's figures and the more optimistic figures reported by public pensions themselves is 21 percent of plan liabilities, or about \$1.9 trillion as of 2020. This is the amount of pension liabilities that public plans assume will be funded via the premium paid on risky assets over safe investments, a premium that is uncertain. Sharing some or all this risk with pension participants could generate large savings to pension sponsors.

Direct reductions to already-accrued benefits are rarely legally permissible outside of government insolvency, if then. However, reductions to annual COLAs produce immediate and compounding savings to pension sponsors. The ability of governments to make such changes has differed from state to state based on legal interpretations of whether COLAs should be considered part of employees' accrued benefits. Some states, such as Colorado, have been able to make either ad hoc reductions to COLAs or to base COLAs on the funded status of the plan. In other states, such as Oregon, COLA reductions were deemed illegal if applied to accrued benefits, but reduced COLAs can be applied to future benefit accruals.

Given the legal protections accorded to pension benefit formulas, either retrospectively or prospectively, increases in employee contributions may be the most efficient means for governments with troubled pension systems to restore those plans to financial health. Nevertheless, rising employee contributions do not come without costs because new employees would be required to help finance benefits for older employees that the plan sponsor deemed unaffordable. Higher required contributions for newly hired employees reduces their compensation on a commensurate basis, making public-sector employment less competitive relative to alternate jobs. How much less competitive public jobs become depends on the level of public-sector compensation before the increase in pension contributions. If prior compensation was sufficiently generous, even a reduced level may allow the plan sponsor to compete in the labor market. But if and where increased employee pension contributions render a public-sector employer noncompetitive, it may need to increase compensation through salaries or other means, offsetting some of the savings from raising pension contributions. Thus, avoiding politically and legally contentious battles regarding reductions to benefits for current employees does not come without disadvantages.

INCREASE ACCOUNTABILITY THROUGH AN INDEPENDENT OVERSIGHT BOARD

Although it is convenient to blame unexpected economic events for public pensions' current funding problems, the real culprit is shortsighted policy decisions made by plans and their government sponsors. Complicating matters, each state has dozens, hundreds, or, in a few cases, thousands of pension systems, each with its own board and frequently with overlapping jurisdictions. The sheer number of plans and the highly technical nature of defined-benefit pensions reduce accountability for responsible decisionmaking. For public pensions to be sustainable, governments must improve decisionmaking on pension funding, benefits, and investments.

Texas provides an example of how to exercise oversight of, and check poor decisionmaking by, public pension plans. The [Texas Pension Review Board \(PRB\)](#) is a state agency tasked with overseeing the state's more than 90 defined-benefit public pension plans. PRB's core responsibilities include collecting, analyzing, and publicly disseminating comparative data that include the fiscal health, governance, and benefits of state pension plans; providing technical assistance, education, and advice to pension systems and their government sponsors; and advising and making recommendations to the governor's office and legislature.

In short, PRB provides local government sponsors, state policymakers, and taxpayers with independent, unbiased support on all issues related to public pensions. Although PRB does not have regulatory authority, its oversight has had a substantial impact in several ways. The agency's transparency efforts (for example, the [Texas Public Pension Data Center](#)) and reports have deepened stakeholder understanding of pensions, leading to a more data-informed policy debate.

PRB's intensive plan reviews and best-practice guides have resulted in meaningful positive changes to many of Texas's pension plans. PRB's technical assistance and policy recommendations have directly informed pension-reform legislation—most recently, for Dallas, Houston, and the statewide Employee Retirement Plan.

The PRB has also facilitated the implementation of new reporting requirements like the Investment Practices and Performance Reports as well as remediation steps for plans approaching severe fiscal distress (Pension Review Board 2020). Other states should consider adopting PRB-like models to improve pension oversight and accountability (McGee 2020).

Increase Legal Clarity Around Pensions and Other Financial Priorities

One of the biggest challenges that governments face when they are in financial crisis is that there is very little legal clarity regarding financial priorities, including pensions. Various parties fight vociferously for their own interests, but there is little to guide policymakers or the courts in these circumstances. Establishing priorities prior to any crisis could make dealing with such situations much easier.

Establish Debt Priorities

From a public policy perspective, it is not clear whether pensions or government debt should be senior, or—at least over the long run—if the seniority of either type of obligation is of paramount importance. If pensions are granted seniority of payment, then market prices on existing and newly-issued government debt would adjust to reflect the greater risk of nonpayment. Likewise, were explicit debt placed prior to pensions, then pension stakeholders—employees, retirees, and the labor unions that represent them—would have a strong incentive to demand adequate funding and more stringent accounting standards for their retirement plans, things these groups have hitherto tended to oppose.

Clarifying the relative order of payment between pensions and explicit government debt would impose a one-time cost on either party, with the size of the cost dependent on the likelihood of a fiscal crisis occurring. For a well-functioning government with ample fiscal space, the costs of being second in line would be small. For a government in a more fiscally perilous position, however, the costs could be larger. For bondholders, being placed junior to pension participants might impose an immediate reduction in the value of their holdings given that the risk of their assets increased. For pension participants the immediate loss is less apparent, but could come in terms of increased employee contributions, less fiscal space for the government to grant salary or other benefit increases, or reforms that make pension benefits less generous or shift financing risk from the government to participants.

Nevertheless, clarity regarding the order of payment in a time of fiscal crisis is important. If bondholders and pension participations are each allowed to believe they are first in line to be paid out of whatever limited resources are available to a fiscally endangered government, neither group will be likely to exert sufficient pressure on the government to balance its books before a crisis occurs. Each

group may believe that although a governmental default would damage many parties, it would be spared.

Providing legal clarity for newly issued debt or newly accruing pension benefits is relatively straightforward. Purchasers of government debt or public employees could be notified that their claims would be junior or senior to those of other government creditors and that they would have the option to not purchase the security, to seek alternate employment, or perhaps to participate in a defined contribution retirement plan that, while shouldering participants with investment risk, offers greater legal clarity regarding ownership.

Clarifying the order of payment for existing debt and accrued pension liabilities would offer larger benefits in terms of planning and incentives because these existing liabilities are so much larger. But deciding the priority of payment of pensions versus bonded debt would be far more difficult to accomplish both politically and legally. Politically, any such clarification of the order of repayment would be very likely to tip in favor of pension participants. If the sponsoring government were in a fiscally perilous state, clarifying the treatment of pensioners versus other creditors could cause an increase in borrowing costs for the government, thereby increasing fiscal pressure on the government. Legally, a government stating that one creditor would be favored over another likely would trigger court action by the disfavored party or parties, an action that governments might wish to avoid. But for a government potentially facing a fiscal crisis, such litigation would be likely in any case. Government action today could resolve such legal questions in advance, providing time for various parties to adjust their expectations.

Establish the Legal Authority to Make Prospective Benefit Adjustments

Pension benefits are not a gratuity granted at the whim or good will of the employer. Pensions are part of the compensation to public employees for services rendered, and in most cases public employees make payments throughout their careers to help fund their benefits in retirement. For those reasons, there is a general legal, political, and moral reluctance to reduce accrued pension benefits except under the direst fiscal circumstances.

However, as discussed previously, many states go further than protecting accrued pension benefits and extend legal or political protections to the right to accrue future pension benefits on the same terms as were in force at the time the employee was hired. These protections imply that cost-saving changes to benefits can be made only to newly hired employees, meaning that the fiscal effects

of such changes would take roughly seven decades—the expected lifetime of an employee hired just prior to the pension reforms being implemented—to be fully felt.

Protections for future benefit accruals are why many public plans have multiple tiers of generally declining generosity of benefits for younger employees. In addition to delaying the fiscal savings from a pension benefit change, the ability to apply such changes only to newly hired employees concentrates benefit reductions on a narrower set of individuals, making those positions less attractive to future employees considering where to embark a career. If reduced pensions render public-sector positions unattractive in the broader labor market, government employers may have to increase salaries or other benefits to attract employees, thereby offsetting some of the savings from a pension reform.

State protections for future pension benefit accruals go beyond federal regulation of private-sector pensions under the Employee Retirement Income Security Act of 1974 (ERISA). Under ERISA, employers may not reduce accrued benefits under traditional defined benefit plans or take back employer contributions to defined contribution plans, except under certain specified circumstances such as a failure to vest in the plan or the insolvency of the sponsoring employer. Even in the case of the sponsor's bankruptcy, benefits under traditional pensions are insured to certain dollar amounts by the Pension Benefit Guaranty Corporation, with such insurance financed via premiums paid by plan sponsors.

Federal regulation provides flexibility for plan sponsors alongside protection of accrued benefits for plan participants. The implicit assumption underlying federal rules is that the labor market that influenced pension accruals to date will continue to maintain future accruals at a level that is sufficient to attract and retain employees without imposing unsustainable costs on plan sponsors. Since the passage of ERISA in 1974, employer contributions to private-sector retirement plans have increased from 5.8 percent of total wages and salaries in 1975 to 8.4 percent in 2017, according to Department of Labor data. Thus, granting private employers the ability to alter the accrual of retirement plan benefits on a going-forward basis has not necessarily undercut employers' larger commitment to helping employees fund future retirement incomes.

To be clear, however, the ability to alter future benefit accruals would not go far toward addressing unfunded public pension liabilities that already exist. Existing public pension liabilities are, for the most part, based on employees' service to date; unfunded pension liabilities reflect a shortfall of plan assets relative to those accrued benefits.²⁵ Altering public pension benefit accruals going forward could lead to a reduction in unfunded liabilities if the cost of the newly adjusted benefits was

lower than the level of contributions made to the plan. But this would be an ongoing process of restoring the plan to full funding, not an instantaneous effect of eliminating unfunded liabilities.

Changes to Legal or Financing Structures

Separate from such changes to funding policy or benefits formula is the prospect of segregating a pension plan financially or legally from the rest of the government budget. The goal would be to create greater certainty regarding pension funding and reduce the chances that an underfunded pension could destabilize the rest of the public-sector budget. For instance, a pension plan might have a dedicated source of tax revenues, or the plan might be established such that the government's obligation to plan liabilities is not open-ended but specified in law. Although this approach may have advantages, particularly on a going-forward basis for new benefit accruals, such segregation could not necessarily be guaranteed were the pension to face insolvency. In such times, public policy or political considerations may be paramount. However, a legally segregated plan might be helpful in adjudicating risks between pension participants and other government creditors, such that the seniority of payments and the revenue sources available to either type of liability are more firmly established.

Federal Policy Options

Many rationales exist for government regulation, but one is to ensure that individuals or organizations acting on the behalf of others fulfill their obligations, particularly when it is difficult for those being represented to monitor the actions of those working on their behalf.

State and local government pensions merit federal attention for two additional reasons: (1) public-sector retirement plans help to provide retirement security for 14 million current workers and 11 million retirees or beneficiaries, and (2) state and local governments implement or manage major federal programs and priorities, including Medicaid and much of the nation's infrastructure. Poorly managed pensions place the fiscal health and capability of state and local governments at risk.

The federal government has almost no current involvement in oversight or management of public pension plan funding. State and local pension plans are exempt from ERISA, which establishes the rules governing most private-sector pension plans. Similarly, although state and local pension plans are eligible for and typically receive federal tax exemption, they are exempt from many of the federal tax requirements that apply to private employer plans, including funding requirements (Crane 2001).

We discuss in the following section ways in which the federal government could help strengthen the management of public pensions. Several of the approaches could be moderated so that they apply only in situations in which plans are in danger of fiscal distress. In cases of severe fiscal distress, discussed later, some of these approaches could be coupled with federal benefits such as access to lending facilities or tax-exempt borrowing authority.

The Current Exclusion of Public Plans from Federal Regulation of Private Pensions

Federal government regulation of private pensions is designed to ensure that pension benefits accrued today but not payable until years or decades in the future are capable of being paid. Thus, federal regulations dictate standards for measuring and funding private-sector pension liabilities.

At the time ERISA was being considered by Congress, there was some thought of including state and local government retirement plans under the legislation's purview. However, several lines of reasoning pointed against federal regulation of state and local government pensions.

First, in the early 1970s, it was unclear whether the federal government could regulate the employment practices of state and local governments. In 1974, the year in which ERISA was passed, the US Supreme Court in *National League of Cities v. Usery* ruled that the federal government could not extend Fair Labor Standards Act rules on minimum wages to state and local governments. However, this case was overturned in 1985 in *Garcia v. San Antonio Metropolitan Transit Authority*, which allowed federal regulation of state and local governments, and today we do not consider it unusual for federal laws such as the Affordable Care Act to dictate how state or local governments must act in their role as employers.

Second, although insolvencies of private-sector employers and subsequent losses of pension benefits were common enough by the 1970s that Congress saw reason to increase regulation of private pension plans, insolvencies of state or local governments were nearly unknown. Governments were often viewed as “model employers” that looked out for employees’ interests, whereas private-sector employers were sometimes viewed as profit maximizers that might not always act on their employees’ behalf.

Finally, pensions did not play the substantial role in state and local government finance that they do today. In 1974, pension benefit payments to public employees were equal to only 3.8 percent of state and local government expenditures, according to National Income and Product Accounts data. By 2019, benefit payments had reached 11.3 percent of state and local government spending.

The nearly half century that has passed since ERISA became law provides additional perspective on these views. When viewed using similar accounting standards—in particular, the discount rate used to convert promised future pension benefit payments to a present value of plan liabilities—state and local government pensions are not funded nearly so well as private-sector plans. In data for the first quarter of 2021 from the Federal Reserve’s Financial Accounts of the United States, which values public- and private-sector pension liabilities using a common set of accounting standards, private-sector defined benefit plans were 95 percent funded while state and local government pensions were only 57 percent funded.

State and local government pensions have also been accused of using unduly optimistic investment return assumptions to keep pension contributions low. Moreover, as the size of public pension liabilities has increased, the risk of a pension insolvency or governmental default grows. The economic effects of a state-level fiscal crisis could cross states lines, making public employee pension funding a matter of potential concern to federal lawmakers.

How Federal ERISA-Like Regulation of Public Pensions Could Add Value

Bringing state and local pension plans within ERISA’s jurisdiction, or at least subjecting such plans to federal funding requirements, could add value in three important areas. First, federal regulation dictates how private pension liabilities are to be measured. Federal rules, which require that private pension liabilities be discounted using a corporate bond yield, produce a value more in line with economists’ and financial markets’ views of liability valuation. Indeed, when state and local government pension liabilities are included in the federal government’s National Income and Product Accounts and the Federal Reserve’s Financial Accounts of the United States, these liabilities are not used as published by state and local governments; they are first re-discounted to a common interest rate based on corporate bond yields. In general, economists and financial analysts agree that when a liability is highly likely to be paid, as with public pensions, this rate should reflect market interest rates for low-risk securities (Brown and Wilcox). Moreover, values calculated under federal rules would be comparable from state to state, whereas pension liability values released by states under current actuarial method may differ based on the discount rate chosen by the state. A state that assumes a high return on its pension investments will show substantially lower pension liabilities than a state that assumes a more modest return, even if both states promised the same future benefits in dollar terms.

Second, ERISA establishes standards for how pensions should be funded, including the discount rate to be used for funding purposes as well as how quickly a plan sponsor must address unfunded

liabilities when they occur. In general, the discount rate for funding purposes under ERISA is much lower than the assumed investment return used by public plans, causing employer contributions to be higher than they would be with an assumed return. Under federal law, a private pension sponsor must in most cases address unfunded liabilities within 7 years, but many state and local governments take up to 30 years to amortize unfunded liabilities. A shorter amortization period for unfunded liabilities would prevent pension sponsors from delaying action and allowing unfunded liabilities to accumulate.

Increased federal regulation of state and local pensions might also allow access to the Pension Benefit Guaranty Corporation's (PBGC) benefit insurance programs should a pension or its sponsor become financially unstable. State and local government employees currently are not protected by PBGC insurance. Such protections should not be granted immediately or without foresight because state and local governments have never paid PBGC premiums, which are the funding source used to protect pension participants against the loss of benefits. It might be better for PBGC protections, if allowed at all, to be phased in over time as sponsors paid premiums and brought their funding practices up to federal standards. Alternately, PBGC insurance protections might be offered proportionately to the plan's funded status at the time it was covered by ERISA. For instance, a plan that was 50 percent funded under federal accounting standards at the time it was covered by ERISA would be eligible for 50 percent of PBGC benefit protections for participants, with that limit removed as the plan met federal funding standards.

Federal regulation of state and local government retirement plans is not a panacea. Federal regulation of public pensions would not create resources where none exist, nor would it erase pension liabilities that governments deem unaffordable. But the history of public-sector pension funding since ERISA's passage in 1974 lends support to the notion that prudent regulation could better enable state and local governments to craft sustainable retirement plans for the 21st century.

Strengthen Public Pension Accounting Standards by Putting GASB under the Oversight of the SEC

ERISA-like regulation of public plans would be strengthened if the federal government also required better reporting and accounting for public pensions. Accurate accounting disclosures are in the interest of financial market participants' ability to gauge the liabilities of governmental entities to which they lend. This is particularly true because in practice bondholders tend to be paid after retirees. Individuals considering the purchase of a municipal bond should be able to do so with accurate

information regarding the size of the pension liabilities that are senior to their own claim on government resources.

The federal government could strengthen accounting by putting the organization that sets governmental accounting standards under the oversight of the Securities and Exchange Commission (SEC). It would be important to couple this with a mandate to make governmental pension accounting standards more like those of the private sector and with structural changes to strengthen the independence of accounting standards from the influence of those being regulated.

Private-sector accounting standards are set by the Financial Accounting Standards Board (FASB), a nonprofit organization with independent board members who must sever connections with firms they served before joining the board. FASB is overseen by the SEC, which is charged with protecting investors and is concerned with enforcing accounting standards.

Public accounting standards are set by the Governmental Accounting Standards Board (GASB). GASB standards generally require public plans to value liabilities and expenses for reporting purposes using a discount rate that is tied to assumed earnings on a pension plan's portfolio. This artificially understates liabilities and annual expenses and creates incentives to take investment risk.

Research has shown that the discount rates used to calculate liabilities are higher for US public pension plans than they are for US private plans or foreign public plans. Furthermore, all else equal, the riskier a pension plan's portfolio, the higher its assumed return will be. Research has also shown US public plans have riskier portfolios than plans not required to use an assumed investment return for liability discounting (Andonov, Bauer, and Cremers 2017; Yin, Boyd, and Sun 2021).²⁶

Changing the accounting standards for public pension plans probably would require changing GASB. GASB members are only appointed with the consent of organizations representing the governments for which it sets standards. In addition, unlike FASB members, GASB members may remain employed in their industry as governmental financial managers (Chan 1985; Gnanarajah 2017; Patton and Hutchison 2013).²⁷ At a minimum, this close connection between GASB members and the industry they regulate makes it difficult for GASB members to vote for standards opposed by governments. Governments and their associations have regularly and vociferously opposed accounting standards that would move toward market-based discount rates for pensions.

Unlike FASB, GASB is not overseen by the SEC. The federal government could require stronger accounting standards for all public pension plans by placing GASB under the oversight of the SEC, as former SEC chair Arthur Levitt, Jr. once proposed. Legal scholars disagree on whether this placement

could be accomplished by the SEC acting on its own. Congressional action might be advisable because such action could also require GASB board members to have the same independence requirements as FASB members and direct GASB to examine public pension accounting standards similar to those of the private sector (Naughton and Spamann 2015).²⁸

Other Potential Federal Options

The federal government could take softer actions than ERISA-like regulation or SEC oversight of GASB, and instead focus on improved transparency. Although transparency does not force governments to adopt sound management, it does provide the raw material that elected officials, citizens, and other stakeholders need to encourage or require sound management. Visibility can lead management to change behavior, sometimes in response to taxpayers, shareholders, or other stakeholders. Research has shown that accounting standards influence management behavior (Anantharaman and Chuk 2018; Beatty 2007).

FEDERAL REPORTING ON THE HEALTH OF PUBLIC PENSION FUNDS

The federal government provides rating or quality information in many areas in which state and local governments have primary responsibility. For example, it provides information on the condition and safety of state and local bridges, on quality and violations for local drinking water systems, and on ratings and reviews of hospitals and nursing homes. These reports provide information to citizens and state and local elected officials that can help them seek improvements. Some federal reporting is coupled with federal enforcement responsibilities (for example, Environmental Protection Agency, Medicare, transportation).

The federal government could begin a regular reporting program on the fiscal health of state and local pension funds, similar to the spotlight ranking of plans discussed in chapter 2. It could produce the information itself or arrange for a think tank or university to conduct the work.

REQUIRING BETTER REPORTING BY STATES AND LOCALITIES ON PENSION FUND HEALTH

The federal government could require supplemental reporting on public pension plans instead of seeking a change in accounting standards. Requiring some or all public pension plans to report liabilities and expenses using market-based discount rates would make the reported costs of public pensions more accurate and make true costs more apparent. The difference between the plan's funded ratio when measured using the assumed return on risky investments and that using a low-risk discount rate constitutes the amount of the plan's funding that depends on realizing an investment

risk premium that in the future may not be realized. For instance, if a plan was 70 percent funded using its assumed investment return, but only 40 percent funded when liabilities were discounted using interest rates on safe investments, this would indicate that 30 percentage points of the plan's funding are not based on the assets held by the plan at that time but on the expectation that those assets will return a risk premium in future years. This greater disclosure would not require plans and governments to manage pension funds more conservatively but would create pressure to do so.

MAKE STATE AND LOCAL GOVERNMENTS' ABILITY TO ISSUE TAX-EXEMPT DEBT CONDITIONAL ON BETTER PENSION REPORTING

In 2013 and periodically thereafter, Rep. Devin Nunes (R-CA) proposed a Public Employee Pension Transparency Act that would require state and local governments to file an information report that, among other things, would show pension liabilities valued using risk-free discount rates.²⁹ These discount rates would result in far higher reported pension liabilities than those reported under assumed-return accounting standards. A government would not be allowed to issue new tax-exempt debt until it filed such a statement.

Opposition by governments was substantial. In April 2013, 21 national organizations representing government officials or public pension plans sent a letter to Nunes opposing the proposal, stating that it "is an inappropriate federal mandate that imposes costly regulation and threatens to tax state and local government bonds" (NCSL et al. 2013). Nineteen of these organizations sent a detailed opposition letter to the House Speaker in 2018, stating that "federal interference into the fiscal affairs of state and local governments is neither requested nor warranted" (NCSL et al. 2018).

ENSURE THE ADEQUACY AND SAFETY OF PENSION BENEFITS FOR EMPLOYEES NOT COVERED BY SOCIAL SECURITY

When Social Security was established in 1935, employees of state and local governments were not covered by the program. Later, in the 1950s, in amendments to the Social Security Act, participation in Social Security by state and local governments was made optional: these governments could choose to enroll their employees, or public employees were allowed to remain outside of Social Security if governments provided their employees with a retirement plan that, at retirement age, provided benefits that were equal to or larger than what Social Security would offer. Currently, around one-quarter of state and local government employees participate in their own retirement system rather than in Social Security.

On paper, all pensions for exempt public employees can at least match Social Security's promised benefits for full-career employees. In practice, though, public employee pensions may fall short of Social Security levels for three reasons.

First, younger public employees often are offered less generous retirement benefits than older employees. For instance, the Illinois Teachers Retirement System has two tiers of participants with greatly different levels of benefits. Tier 1, composed of older employees, has a "normal cost" of accruing benefits of 22.99 percent of annual wages, which is easily enough to match the benefits Social Security offers. Tier 2 teachers, by contrast, accrue benefits each year equal to only 7.71 percent of their annual earnings, barely one-third the level of Tier 1 employees. Although comparisons to Social Security, which is funded by a 12.4 percent payroll tax rate, are not straightforward, newly hired public employees sometimes receive significantly less generous benefits than older workers or current retirees.

Second, the typical public employee does not work a full career for the government. Social Security and public-sector pensions treat partial-career employees differently. Social Security's benefit formula is front-loaded, in that it replaces a larger portion of early-career earnings than earnings just prior to retirement. By contrast, public employee pensions are backloaded, meaning that employees accrue relatively low benefits for the first several decades of their career but then accrue benefits at a much higher rate in the decade or so prior to retiring. So even if a stylized full-career employee received higher benefits under a public-sector pension, actual employees who switch jobs may not do as well.

Finally, many public-sector pensions are underfunded, meaning that they lack the assets to fully cover the benefits they have promised. Moreover, these underfunded pensions are often precisely the same plans that offer younger employees a less-generous retirement benefit. As a result, there is the risk that even a plan that offers benefits comparable with Social Security's benefits may be unable to honor those promises. Social Security faces financial challenges of its own, but because of a different method of funding—Social Security is already effectively funded out of federal payroll tax revenues, while state and local pensions rely on pools of private assets that could be exhausted—and because of the federal government's generally stronger fiscal capacity, risks to public-sector pensions may be more significant than those risks to Social Security.

A 2020 study by analysts at the Center for Retirement Research at Boston College found that a significant number of public employees not currently covered by Social Security could be at risk due to one or more of the factors discussed previously (Quinby, Aubry, and Munnell 2020).

Congress should ensure that state and local governments that do not enroll their employees in Social Security are honoring both the letter and the spirit of the exemption they are offered under federal law. For instance, simulating the benefits of newly hired employees with typical lengths of government employment under various scenarios regarding a public pension fund's solvency could better illustrate whether the Social Security exemption for state and local government employees still makes sense or how it might need to be strengthened and improved.

Conclusions

The most important, if not the timeliest, recommendation is that governments should not promise employee retirement benefits that they are unwilling or unable to fund, in good times or bad. Public-sector employers need a broader and deeper recognition of the risks they are taking when they promise guaranteed, come-what-may benefits to be paid decades in the future, financed by investments.

Much of the fiscal pressure state and local governments face today could have been addressed via improved financial literacy among lawmakers and increased prudence in decades past. At the least, governments should have a clear view of the true costs of benefits they are promising and should work to address funding challenges instead of leaving them to future lawmakers, taxpayers, and public workers.

Nevertheless, today's lawmakers inherited sizable pension debt and they are left with the problem of how to address it. As we highlighted in chapter 3, when a plan runs out of money, there are no good options. It is very difficult to effectively weigh the interests of all stakeholders and come to a fair and equitable solution during a crisis. However, we describe some policy levers and mechanisms that could be helpful should a government find itself in that situation.

Given the challenges of dealing with a crisis, governments should take steps today to close pension funding gaps and ensure that plans have a strong foundation for the future. Not only is this an imperative because millions of public retirees are counting on these plans, but also because fragile pension plans can erode and endanger public services.

To help stakeholders better understand the riskiness of their pension plans, chapter 2 provides a simple rating framework for categorizing plans according to their solvency risk. Unfortunately, 45 percent of plans in the PPD are in the red or orange risk zones, indicating that immediate steps should be taken to address their funding shortfalls and reduce the chances of insolvency. To that end, chapter 4 provides several options that governments can pursue to address pension funding challenges. We hope that our actionable recommendations will help policymakers not only avoid the worst-case scenario but also make changes that leave public pensions in a much stronger position for the next generation of workers and taxpayers.

Appendix A. Risk Zone Data

TABLE A.1

Public Pension Plans by Risk Zone

Plan name	Risk zone	Funded ratio (%)	Percent of ADC paid over prior 5 years	Ratio of active employees to beneficiaries	Ratio of contributions to normal cost plus UAAL interest	Ratio of Non-Investment Cash Flow to Beginning of Year Assets (%)
Arkansas PERS	Green	82	104	1.23	0.95	-2.78
Bismarck Employees' Pension Plan	Green	96	119	0.69	1.05	-1.67
Contra Costa County	Green	95	124	1.35	1.25	-0.78
DC Teachers	Green	95	107	1.01	1.01	0.30
Delaware County and Municipal Employees	Green	106	102	0.17	1.12	3.43
Delaware State Employees	Green	91	109	0.87	1.00	-2.80
Des Moines Water Works	Green	90	102	1.95	2.87	-2.95
Fairfax County ERS	Green	81	118	0.90	1.19	-1.71
Fairfax County Police	Green	86	113	1.06	1.13	-1.70
Greenville Fire Pension Plan	Green	91	152	0.78	1.69	-1.79
Houston Firefighters	Green	89	103	0.96	0.85	-5.33
Houston Police	Green	85	155	0.92	0.96	-2.93
Idaho PERS	Green	83	106	0.89	1.06	-1.79
Illinois Municipal	Green	97	121	1.72	1.19	-2.37
Indiana PERF	Green	87	112	1.00	1.35	-2.63
Iowa Municipal Fire and Police	Green	83	107	1.14	0.94	-3.11
Los Angeles Fire and Police	Green	97	117	1.10	1.03	-2.20
Los Angeles Water and Power	Green	99	144	1.06	1.52	-0.69
Louisiana Parochial Employees	Green	100	102	0.61	0.94	-1.63
Maine Local	Green	91	102	1.13	0.84	-0.96
Maine State and Teacher	Green	82	126	1.15	1.23	-2.86
Maryland Teachers	Green	80	103	0.95	1.00	-2.17
Milwaukee City ERS	Green	82	605	1.59	0.60	-5.60
Missouri Local	Green	99	104	1.12	0.59	-1.10
Missouri PEERS	Green	90	108	0.80	1.01	-1.59

Missouri Teachers	Green	87	108	0.99	1.03	-3.29
Montgomery County Maryland ERS	Green	103	113	1.15	1.16	-3.61
Nashville-Davidson ERS	Green	97	117	1.10	1.04	-3.12
Nebraska Schools	Green	97	119	0.78	1.12	-1.74
New York City Educational	Green	92	108	0.77	1.12	-0.21
New York City ERS	Green	81	111	0.92	1.13	-1.49
New York City Police	Green	80	105	1.38	1.01	-1.77
New York City Teachers	Green	82	119	0.83	1.21	-4.35
North Carolina Local Government	Green	88	117	1.23	1.26	-1.72
North Carolina Teachers and State Employees	Green	87	134	1.40	1.18	-2.60
NY State & Local ERS	Green	97	124	1.01	1.18	-3.40
Ohio PERS	Green	85	102	3.17	0.90	-3.54
Oklahoma City ERS	Green	100	105	0.73	0.88	-3.29
Oklahoma PERS	Green	100	181	1.34	1.49	-2.78
Oklahoma Police	Green	105	158	0.86	1.48	-2.04
Orange County ERS	Green	81	101	1.22	0.96	0.03
Pennsylvania Municipal	Green	113	120	0.89	1.03	-1.24
Rhode Island Municipal	Green	84	112	1.22	1.15	-1.32
San Diego County	Green	80	110	1.45	1.03	-0.68
San Francisco City & County	Green	96	112	1.18	1.18	-1.60
Sioux Falls ERS	Green	105	139	1.47	0.27	-2.31
South Dakota RS	Green	104	118	0.99	1.06	-2.99
Texas County & District	Green	92	113	0.71	1.10	-0.60
Texas Municipal	Green	92	107	0.94	1.14	0.16
TN Political Subdivisions	Green	108	142	0.83	1.33	-0.83
TN State and Teachers	Green	104	156	1.21	1.64	-2.80
Utah Noncontributory	Green	93	148	2.14	1.41	-1.93
Virginia RS	Green	80	103	0.84	0.97	-2.45
Washington LEOFF Plan 2	Green	119	136	0.40	1.38	-0.06
West Virginia PERS	Green	100	144	0.93	1.60	-3.45
Wichita ERS	Green	95	101	1.19	0.93	-4.74
Wichita Police and Fire	Green	96	102	0.98	0.94	-2.88
Wisconsin RS	Green	103	105	1.52	0.99	-3.06
Alabama ERS	Yellow	72	102	0.89	1.31	-1.08
Alaska PERS	Yellow	66	103	3.85	0.90	-4.21
Alaska Teachers	Yellow	78	110	3.81	1.08	-5.24

Arizona Public Safety	Yellow	51	104	0.98	1.04	2.13
Atlanta ERS	Yellow	76	172	0.85	1.86	-3.74
Atlanta Police	Yellow	77	100	1.03	0.70	-3.51
Baltimore City Employees	Yellow	77	135	1.23	1.24	-3.41
Baltimore Fire and Police	Yellow	72	116	1.62	1.10	-3.39
Boston RS	Yellow	68	122	0.75	0.95	0.24
Burlington ERS	Yellow	75	118	1.32	1.07	-2.38
Connecticut Municipal	Yellow	78	124	0.98	0.86	-2.22
Connecticut SERS	Yellow	40	114	1.15	0.94	-2.43
Connecticut Teachers	Yellow	53	106	0.80	0.97	-3.42
DC Police & Fire	Yellow	113	93	0.79	0.77	-0.30
Detroit General RS	Yellow	61	114	2.73	0.81	-9.89
Georgia ERS	Yellow	78	148	1.04	1.29	-4.82
Hartford MERF	Yellow	68	124	1.63	1.17	-5.90
Houston Municipal	Yellow	62	119	1.30	0.93	-3.63
Indiana Teachers	Yellow	53	132	1.03	1.24	-1.70
Jersey City Municipal Employees	Yellow	54	108	0.57	0.93	-0.83
Kansas PERS	Yellow	74	122	1.08	1.10	-1.99
Kentucky ERS	Yellow	19	111	2.40	1.13	0.80
Kern County ERS	Yellow	67	101	1.27	1.06	-0.79
Lexington-Fayette County Police and Fire	Yellow	79	134	1.12	1.22	-2.61
Louisiana Municipal Police	Yellow	78	135	1.34	1.41	-0.88
Louisiana Schools	Yellow	76	116	1.26	1.16	-3.86
Louisiana SERS	Yellow	66	132	1.41	1.36	-2.87
Louisiana Teachers	Yellow	72	128	1.07	1.26	-3.03
Manchester ERS	Yellow	62	104	0.91	1.04	-1.43
Maryland PERS	Yellow	72	102	1.30	0.97	-2.58
Massachusetts SRS	Yellow	69	102	1.09	0.84	-2.69
Michigan Municipal	Yellow	69	117	1.62	1.32	-1.64
Michigan Public Schools	Yellow	64	109	1.46	0.97	-3.93
Milwaukee County ERS	Yellow	77	132	2.59	1.20	-7.14
Missouri DOT and Highway	Yellow	66	137	1.57	1.45	-1.91
Montana Teachers	Yellow	71	283	0.62	1.45	-3.96
New Castle County Pension	Yellow	70	140	1.47	1.22	-3.42
New Hampshire RS	Yellow	63	100	0.87	0.97	-1.92
New Jersey Police & Fire	Yellow	69	101	1.10	0.98	-2.95
New Orleans ERS	Yellow	62	147	0.93	1.29	-1.39

New York City Fire	Yellow	69	115	1.48	1.11	0.33
Oklahoma Municipal Employees	Yellow	88	97	0.73	0.82	-2.20
Oklahoma Teachers	Yellow	72	118	0.90	1.01	-1.92
Pennsylvania School Employees	Yellow	62	109	1.04	1.07	-1.87
Pennsylvania State ERS	Yellow	65	128	1.39	1.72	0.03
Philadelphia Municipal	Yellow	57	134	1.28	1.34	0.13
Phoenix ERS	Yellow	66	102	1.06	1.04	-1.09
Pittsburgh Municipal	Yellow	79	111	0.99	1.27	0.84
Pittsburgh Police	Yellow	72	107	1.56	1.30	-0.01
Rhode Island ERS	Yellow	58	109	1.23	1.04	-4.40
San Diego City ERS	Yellow	75	144	2.02	1.17	-1.72
South Carolina Police	Yellow	65	101	0.81	0.99	-0.16
St. Louis Employees	Yellow	79	117	1.49	1.11	-5.09
St. Louis School Employees	Yellow	73	119	1.00	0.98	-6.03
Tucson Supplemental RS	Yellow	76	123	1.40	1.13	-4.36
Utah Public Safety	Yellow	89	86	2.48	0.75	-1.49
Vermont Municipal Employees	Yellow	78	122	0.63	0.74	0.20
Vermont State Employees	Yellow	68	111	1.04	0.85	-1.50
Vermont Teachers	Yellow	58	111	1.11	0.80	-1.85
Washington PERS 2/3	Yellow	103	77	0.63	1.16	0.15
Washington School Employees Plan 2/3	Yellow	96	60	0.59	0.73	0.67
Washington Teachers Plan 2/3	Yellow	95	53	0.43	0.58	1.10
West Virginia Teachers	Yellow	77	135	1.15	1.30	-3.82
Alabama Teachers	Orange	72	94	0.95	0.88	-4.04
Alameda County ERS	Orange	79	93	1.18	0.93	-2.02
Arizona SRS	Orange	74	100	1.92	0.92	-2.13
Arkansas Teachers	Orange	83	90	1.00	0.82	-3.99
Atlanta Fire	Orange	74	99	1.27	0.71	-4.25
Austin ERS	Orange	67	89	0.81	0.81	-1.12
Baton Rouge City Parish RS	Orange	67	88	1.33	0.81	-3.78
Birmingham RRS	Orange	71	75	1.06	0.82	-5.71
California PERF	Orange	78	98	1.34	1.21	0.26
California Teachers	Orange	78	91	0.80	0.96	-0.84
Charlotte Firefighters' RS	Orange	77	87	0.72	0.58	-3.23
Cincinnati ERS	Orange	72	82	1.34	0.69	-7.81
Colorado Municipal	Orange	86	95	0.86	0.99	-3.27
Cook County ERS	Orange	66	88	1.88	0.81	-2.46

Dallas ERS	Orange	76	79	1.28	0.66	-4.87
Denver Schools	Orange	84	71	0.64	0.81	-3.89
Fairfax County Schools	Orange	78	97	0.80	0.93	-1.41
Florida RS	Orange	85	98	1.19	0.81	-4.60
Georgia Teachers	Orange	80	95	1.09	0.89	-2.16
Iowa PERS	Orange	87	100	0.89	0.95	-2.95
Kansas City Missouri ERS	Orange	86	96	0.95	0.92	-4.20
Kansas City Schools	Orange	68	96	1.12	0.90	-5.92
LA County ERS	Orange	79	99	0.84	0.84	-2.11
Los Angeles ERS	Orange	72	96	1.26	0.87	-1.26
Louisiana Municipal Employees	Orange	71	86	1.47	0.77	0.04
Miami Fire and Police	Orange	66	77	1.17	0.77	-5.32
Minnesota GERF	Orange	83	99	1.13	0.95	-3.27
Minnesota Police and Fire	Orange	91	95	1.07	0.99	-2.68
Minnesota State Employees	Orange	95	87	1.18	0.96	-3.67
Minnesota Teachers	Orange	78	87	1.01	0.85	-4.71
Montana PERS	Orange	76	92	0.99	0.82	-3.70
Nevada Police Officer and Firefighter	Orange	81	94	0.76	0.89	-0.85
Nevada Regular Employees	Orange	79	90	0.81	0.89	-1.66
New Mexico PERA	Orange	71	84	0.90	0.74	-4.42
New York State Teachers	Orange	102	89	0.66	0.77	-4.92
North Dakota PERS	Orange	71	80	0.80	0.73	-1.72
North Dakota Teachers	Orange	69	98	0.95	0.96	-1.96
NY State & Local Police & Fire	Orange	95	94	1.18	0.92	-2.91
Ohio Police & Fire	Orange	73	94	1.18	0.87	-3.58
Ohio School Employees	Orange	75	100	0.55	1.02	-3.81
Ohio Teachers	Orange	79	94	1.05	1.02	-5.56
Oregon PERS	Orange	79	69	1.10	0.77	-4.11
Sacramento County ERS	Orange	85	100	1.31	0.95	-1.47
Seattle ERS	Orange	75	92	1.09	0.92	-0.33
St. Paul Teachers	Orange	68	96	1.99	1.01	-4.69
Texas Teachers	Orange	79	93	0.63	0.81	-2.04
University of California	Orange	83	87	0.92	0.74	-0.66
Wyoming Public Employees	Orange	77	89	1.05	0.81	-3.64
Arizona State Corrections Officers	Red	52	84	0.88	0.77	0.68
Charleston, WV Firemen's Pension	Red	13	78	2.64	0.86	4.62
Chicago Fire	Red	21	81	1.14	0.92	4.10

Chicago Police	Red	24	73	1.16	0.83	0.21
Chicago Teachers	Red	48	90	1.26	0.80	-4.79
Colorado School	Red	63	81	0.75	0.82	-3.44
Colorado State	Red	61	83	0.93	0.83	-4.34
Denver Employees	Red	62	99	1.55	1.01	-3.05
Hawaii ERS	Red	58	86	0.90	0.82	-1.15
Illinois SERS	Red	41	83	1.27	0.89	-0.65
Illinois Teachers	Red	42	81	0.88	0.77	-2.34
Illinois Universities	Red	44	93	2.14	0.86	-3.28
Jacksonville Fire and Police	Red	49	78	1.41	0.68	-3.07
Kentucky County	Red	50	98	1.41	0.84	-2.51
Kentucky Teachers	Red	57	93	0.98	0.86	-3.62
Massachusetts Teachers	Red	56	95	0.71	0.88	-2.84
Mississippi PERS	Red	63	93	0.84	0.88	-4.44
Missouri State Employees	Red	59	98	1.63	0.89	-4.45
New Mexico Educational	Red	62	85	1.03	0.79	-3.46
Omaha ERS	Red	54	93	0.87	0.88	-5.46
Omaha Police and Fire	Red	60	89	1.09	0.88	-0.65
Omaha School	Red	64	77	0.83	0.67	-2.62
Providence ERS	Red	26	100	1.24	0.90	-0.47
South Carolina RS	Red	57	97	0.84	0.96	-1.92
Chicago Municipal	Deep Red	22	49	1.46	0.55	-7.97
Dallas Police and Fire	Deep Red	41	76	1.12	0.81	-5.28
Detroit Police and Fire	Deep Red	67	61	3.89	0.43	-10.14
Jacksonville ERS	Deep Red	61	100	1.47	0.77	-5.54
New Jersey PERS	Deep Red	53	96	0.75	0.85	-4.36
New Jersey Teachers	Deep Red	39	71	0.69	0.75	-6.97
Oklahoma Fire	Deep Red	72	105	1.30	0.90	-7.52
Texas ERS	Deep Red	66	97	0.94	0.83	-4.28
Texas LECOS	Deep Red	59	59	0.42	0.43	-6.06

Note: ADC = actuarially determined contribution; UAAL = unfunded actuarial accrued liability.

Notes

- ¹ Authors' calculation using Public Plans Data, a database that contains annual data on the largest state/local pension in the US. Public Plans Data is produced by the Center for Retirement Research at Boston College in partnership with the MissionSquare Research Institute and the National Association of State Retirement Administrators.
- ² For instance, see Eide (2015), McGee (2016), and Nation (2017).
- ³ The BEA methodology likely understates the degree to which falling interest rates increase the normal cost of pensions. Accounting policies promulgated by the Governmental Accounting Standards Board require public employee pensions to disclose the sensitivity of accrued liabilities to changes in the discount rate, but they do not require similar sensitivity analysis for the normal cost of new benefits. The BEA uses the Governmental Accounting Standards Board disclosures to adjust currently accrued benefits to the BEA's chosen discount rates and assumes that the normal cost of newly accruing pension benefits changes with interest rates at the same rate as does the value of already-acrued benefits. However, newly accruing benefits would generally have a longer duration than currently accrued benefits and for that reason would be more sensitive to changes in discount rates. Most public plans do not disclose how normal costs change with the discount rate, but where such sensitivity analysis exists, it tends to find that normal costs rise more with a decline in discount rates than does the value of currently accrued benefit liabilities.
- ⁴ Expenditure categories other than pensions include a pension component, in that state and local government employees in those areas participate in public-sector pensions and receive employer contribution on their behalf. Thus, the nonpension growth rate of state and local spending by function is lower than the figures reported in table 1.
- ⁵ Public Plans Data, maintained by the Center for Retirement Research at Boston College in partnership with the MissionSquare Research Institute and the National Association of State Retirement Administrators, provides a range of financial and policy details on more than 202 public-sector plans, with data beginning in 2001 and running to the present.
- ⁶ The Federal Reserve's Financial Accounts of the United States includes data on transactions and levels of financial assets and liabilities, by sector and financial instrument; full balance sheets, including net worth, for households and nonprofit organizations, nonfinancial corporate businesses, and nonfinancial noncorporate businesses; Integrated Macroeconomic Accounts; and additional supplemental detail.
- ⁷ U.S. Const. Art. I §X, cl. 1.
- ⁸ *U.S. Trust v. New Jersey*, 431 U.S. 1, 25 (1977).
- ⁹ *U.S. Trust*, 431 U.S. at 31.
- ¹⁰ *U.S. Trust*, 431 U.S. at 29–30.
- ¹¹ *U.S. Trust*, 431 U.S. at 31.
- ¹² *Buffalo Teachers Federation v. Tobe*, 464 F.3d 362, 368 (2nd Cir. 2006).
- ¹³ *Cranston Police Retirees Action Committee v. City of Cranston*, 2016 Westlaw 4059309 (R.I. Sup. Ct. 2016).
- ¹⁴ *Cranston Police Retirees Action Committee v. City of Cranston*, 208 A.3d 557 (R.I. 2019).
- ¹⁵ *Andres v. Lombardi*, 231 A.3d 1108 (R.I. 2020).
- ¹⁶ For a discussion of the various issues surrounding potential state bankruptcy and insolvency, see Hynes (2012) and Skeel (2012).

- ¹⁷ In re City of Stockton, 526 B.R. 35 (Bankr. E.D. Cal. 2015).
- ¹⁸ See, for example, Welch v. Brown, 2014 WL 2931389 (E.D. Mich. June 30, 2104); Hebert v. City of Woonsocket, 213 A.3d 1065 (R.I. 2019).
- ¹⁹ Welch, 2014 WL 2931389, at 2.
- ²⁰ For more information on best-practice recommendations that policymakers can use to guide funding policy, see Pension Funding Task Force (2013); Society of Actuaries (2014); “Sustainable Funding Practices for Defined Benefit Pensions and Other Postemployment Benefits,” Government Finance Officers Association, January 22, 2016, <https://www.gfoa.org/materials/sustainable-funding-practices-for-defined-benefit-pensions>; “Core Elements of a Funding Policy,” Government Finance Officers Association, September 30, 2016, <https://www.gfoa.org/materials/core-elements-of-a-funding-policy>. See also American Academy of Actuaries (2012).
- ²¹ For more information on recent pension reform law in Houston, see “Sustainable Pensions,” City of Houston, accessed December 27, 2021, <http://www.houstontx.gov/pensions/>.
- ²² Tatiana Follett, Noah Harrison, and Anna Petrini, “Public Pension Stress Testing in the States,” National Conference of State Legislatures, January 15, 2021, <https://www.ncsl.org/research/fiscal-policy/public-pension-stress-testing.aspx>.
- ²³ Greg Mennis and Michael Lowenthal, “Stress Testing in Connecticut Shows Reforms Stabilizing State Pension System,” The Pew Charitable Trusts, January 30, 2019, <https://www.pewtrusts.org/en/research-and-analysis/articles/2019/01/30/stress-testing-in-connecticut-shows-reforms-stabilizing-state-pension-system>.
- ²⁴ For a discussion of various risk sharing options see Munnell and Sass (2013); Brainard and Brown (2018); Boyd, Chen, and Yin (2019); Greg Mennis and Aleena Oberthur, “Cost-Sharing Features Can Help State Pensions Manage Economic Uncertainty,” The Pew Charitable Trusts, November 5, 2019, <https://www.pewtrusts.org/en/research-and-analysis/articles/2019/11/05/cost-sharing-features-can-help-state-pensions-manage-economic-uncertainty>.
- ²⁵ A retirement system’s measured liability is often calculated based on employees’ years of service to date and their projected earnings at retirement because even benefits accrued via service to date will be calculated via a formula that references the employee’s final salary prior to retirement.
- ²⁶ See ASC 715-30-35-40+ at “Accounting Standards Codification,” Financial Accounting Standards Board, accessed December 27, 2021, <https://asc.fasb.org/section&trid=2235091#d3e14239-114931>.
- ²⁷ See also the FASB and GASB websites.
- ²⁸ Arthur Levitt, Jr., “Standards Deviation,” *Wall Street Journal*, March 9, 2007, <http://www.wsj.com/articles/SB117341014938031922>.
- ²⁹ Devin Nunes, “H.R.6290 - 115th Congress (2017–2018): Public Employee Pension Transparency Act” (2018), <https://www.congress.gov/bill/115th-congress/house-bill/6290?s=1&r=100>.

References

- Anantharaman, Divya, and Elizabeth C. Chuk. 2018. "The Economic Consequences of Accounting Standards: Evidence from Risk-Taking in Pension Plans." *Accounting Review* 93 (4): 23–51. <https://doi.org/10.2308/accr-51937>.
- Andonov, Aleksandar, Rob M. M. J. Bauer, and K. J. Martijn Cremers. 2017. "Pension Fund Asset Allocation and Liability Discount Rates." *Review of Financial Studies* 30 (8): 2555–95. <https://doi.org/10.1093/rfs/hhx020>.
- American Academy of Actuaries. 2012. "The 80% Pension Funding Standard Myth." Washington, DC: American Academy of Actuaries. https://www.actuary.org/files/80_Percent_Funding_IB_071912.pdf.
- Aubry, Jean-Pierre, and Kevin Wandrei. 2021. "2021 Update: Public Plan Funding Improves as Workforce Declines." *State and Local Pension Plans* 78. <https://crr.bc.edu/wp-content/uploads/2021/06/SLP78.pdf>.
- Beatty, Anne. 2007. "How Does Changing Measurement Change Management Behaviour? A Review of the Evidence." *Accounting and Business Research* 37 (sup 1): 63–71. <https://doi.org/10.1080/00014788.2007.9730086>.
- Brainard, Keith, and Alex Brown. 2018. *In-depth: Risk Sharing in Public Retirement Plans*. Washington, DC: National Association of State Retirement Administrators. <https://www.nasra.org/files/Spotlight/Risk%20Sharing%20in%20Public%20Retirement%20Plans.pdf>.
- Boyd, Donald, Gang Chen, and Yimeng Yin. 2019. *How Risk-Sharing Policies Affect the Costs and Risks of Public Pension Plans*. Washington, DC: Brookings Institution. <https://www.brookings.edu/research/how-risk-sharing-policies-affect-the-costs-and-risks-of-public-pension-plans/>.
- Brown, J., and D. Wilcox. 2009. "Discounting State and Local Pension Liabilities." *American Economic Review* 99 (2): 538–42. <https://www.jstor-org.libproxy.albany.edu/stable/25592454>.
- Chan, James L. 1985. "The Birth of the Governmental Accounting Standards Board: How? Why? What Next?" In *Research in Governmental and Non-Profit Accounting a Research Annual*, vol. 1. Greenwich: JAI Press. <https://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.462.8085&rep=rep1&type=pdf>.
- Crane, Roderick B. 2001. "Regulation and Taxation of Public Plans: A History of Increasing Federal Influence." In *Pensions in the Public Sector*, edited by Olivia S. Mitchell and Edwin C. Husted. Philadelphia: University of Pennsylvania Press. <https://pensionresearchcouncil.wharton.upenn.edu/wp-content/uploads/2015/09/0-8122-3578-9-6.pdf>.
- Eide, S. D. 2015. "California Crowd-Out: How Rising Retirement Benefit Costs Threaten Municipal Services." New York: Manhattan Institute.
- Gnanarajah, Raj. 2017. "Accounting and Auditing Regulatory Structure: U.S. and International." Washington, DC: Congressional Research Service.
- Hynes, Richard M. 2012. "State Default and Synthetic Bankruptcy." *Washington Law Review* 87 (3): 657.
- Khouri, Nick. 2018. "Public Act 202: Selection of the Uniform Assumption." Lansing: Michigan Department of Treasury. https://www.michigan.gov/documents/treasury/Draft-Uniform_Actuarial_Assumptions_630888_7.pdf.
- McGee, Josh B. 2016. "Feeling the Squeeze: Pension Costs Are Crowding Out Education Spending." New York: Manhattan Institute.
- McGee, Josh B. 2020. *The Texas Pension Review Board: A Model for Nationwide Reform*. New York: Manhattan Institute. <https://www.manhattan-institute.org/texas-pension-board-model-for-pension-reform>.

- Monahan, Amy B. 2017. "When a Promise is Not a Promise: Chicago-Style Pensions." *UCLA Law Review* 64 (2): 356. <https://heinonline.org/HOL/LandingPage?handle=hein.journals/uclalr64&div=12&id=&page=>
- Munnell, Alicia H., and Steven A. Sass. 2013. "New Brunswick's New Shared Risk Pension Plan." *State and Local Pension Plans* 33. https://crr.bc.edu/wp-content/uploads/2013/07/slp_33_508.pdf.
- Nation, J. 2017. "Pension Math: Public Pension Spending and Service Crowd Out in California, 2003–2030." Working Paper 17-023. Stanford, CA: Stanford Institute for Economic Policy Research.
- Naughton, James P., and Holger Spamann. 2015. "Fixing Public Sector Finances: The Accounting and Reporting Lever." Discussion paper 814. Cambridge, MA: Harvard University John M. Olin Center for Law, Economics, and Business. http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2574308.
- NCSL (National Conference of State Legislatures) et al. 2013. "Public Employee Pension Transparency Act Letter, 2013," April 14, 2013, <https://icma.org/documents/public-employee-pension-transparency-act-letter>.
- NCSL (National Conference of State Legislatures) et al. 2018. "Public Employee Pension Transparency Act Letter, 2018," June 20, 2018, https://www.nasact.org/files/Federal_Relations/Congressional_Reg_Comments/2018_06_PEPTA.pdf.
- Patton, Terry K., and Paul D. Hutchison. 2013. "Historical Development of the Financial Reporting Model for State and Local Governments in the United States from Late 1800s to 1999." *Accounting Historians Journal* 40 (2): 21–53. <http://www.jstor.org/stable/43486734>.
- Pension Funding Task Force. 2013. *Pension Funding: A Guide for Elected Officials*. National Governors Association, National Conference of State Legislatures, Council of State Governments, National Association of Counties, National League of Cities, US 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. https://gfoaorg.cdn.prismic.io/gfoaorg/190cc46d-b614-4a69-b382-c504c466f78f_PFAGfEO_0.pdf.
- Pension Review Board. 2020. *Funding Policy and Funding Soundness Restoration Plan Requirements, Policy Objectives and Considerations*. Actuarial Committee, Pension Review Board, Texas. <https://www.prb.texas.gov/txpen/wp-content/uploads/2020/08/Funding-Policy-and-FSRP-Policy-Objectives-Draft-for-Comment.pdf>.
- Pew Charitable Trusts. 2019. *Legal Protections for State Pension and Retiree Health Benefits: Findings from a 50-State Survey of Retirement Plans*. Washington, DC: Pew Charitable Trusts. https://www.pewtrusts.org/-/media/assets/2019/05/prs_legal_protections_for_state_and_local_pension_and_retiree_medical_benefits_brief_final.pdf.
- Quinby, Laura D., Jean-Pierre Aubry, and Alicia H. Munnell. "Pensions for State and Local Government Workers Not Covered by Social Security: Do Benefits Meet Federal Standards?" *Social Security Bulletin* 80: 1.
- Sielman, Rebecca A. 2020. "2020 Public Pension Funding Study." Seattle, WA: Milliman.
- Skeel, David A., Jr. 2012. "States of Bankruptcy." *University of Chicago Law Review* 79 (2): 677.
- Society of Actuaries. 2014. *Report of the Blue Ribbon Panel on Public Pension Plan Funding*. Schaumburg, Illinois: Society of Actuaries.
- Yin, Yimeng, Donald Boyd, and Hao Sun. 2021. "Understanding the Impact of the Low Interest Rate Environment on Retirement Security in the United States: A Review of Academic and Practitioner Research." Schaumburg, Illinois: Society of Actuaries. <https://www.soa.org/globalassets/assets/files/resources/research-report/2021/low-interest-rate-retirement.pdf>.

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