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The economics of state and local pensions

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Abstract

This paper provides an overview of an economics-based perspective on the financial aspects of state and local public pensions in the U.S. Drawing on the research commissioned for an NBER research program on this topic, we discuss the large degree to which public pension liabilities exceed the assets set aside to fund them. We summarize issues related to the optimality of pre-funding, portfolio allocation, the discounting of liabilities, as well as how plans operate in practice. We also lay out an agenda for future research related to financial aspects of public pensions, retiree health plans for public employees, as well as issues related to plan design and labor market outcomes.

1 Introduction

The financial status of public pensions and retiree health plans is one of the most important public finance questions confronting state and local governments. Hardly a day goes by without a major story appearing about the rising cost and soaring unfunded liabilities of these plans and the impact of the recession on the value of their assets. By many accounts the financial demands of paying public employee pensions threatens the ability of governments to adequately fund other priorities including essential public services. The primary aim of this special issue is to provide greater understanding of the problems facing public retirement plans and to highlight important questions for future research on the economics of public pension systems.

Retirement benefits are an important aspect of the compensation packages of many workers in the U.S. However, there is a substantial disparity between public and private sector workers. The great majority of full-time public sector employees are covered by employer-sponsored defined benefit (DB) pension plans as well as retiree health insurance. In comparison, fewer than 15% of non-unionized private

sector workers in the U.S. are covered by a DB pension plan, and over one-third of non-unionized private sector workers do not have access to any retirement benefits at all including 401(k)-type plans.[1] Few have access to retiree health insurance. Around two-thirds of unionized private-sector workers have access to a DB pension plan, and retiree health insurance is more prevalent than in the non-unionized sector, although unionized public sector workers comprise only around 12% of the workforce.

Trends over time paint a picture of divergence between the public sector and private sector. In the private sector of the economy, coverage by DB plans has declined dramatically over the past three decades since the passage of the Employee Retirement Income Security Act in 1974 and the advent of the 401(k) plan a few years later. Moreover, retiree health insurance is a rapidly declining employee benefit in the private sector. In the public sector, DB plans and retiree health coverage remain the norm. If state and local governments can meet their retirement promises, then public sector employees will benefit by bearing less individual risk in retirement. However, the cost and unfunded liabilities associated with retirement plans in the public sector have become a major policy issue for state and local governments with substantial economic implications.

While the divergence in retirement benefits between public and private employees is not a new trend, the differences have come into sharper focus over the past few years as a result of growing fiscal pressures on state and local governments. The recent credit crisis and recession resulted in sharp decline in asset values held in pension trusts and very low interest rates which have inflated the present discounted value of pension liabilities. Lower assets and greater liabilities have resulted in sharp declines in funding ratios for many public DB plans. The collective underfunding of public pensions is estimated to be as high as $3 trillion (Novy-Marx and Rauh, 2011 forthcoming). The decline in the funding status of these plans comes at a time when state and local governments are also struggling with a shrinking tax base and increasing demand for services. Taxpayers, the popular press, analysts, and policymakers are taking notice of the funding shortfalls. They are finding, however, that the solutions are few, difficult, and politically painful. Many are concerned that the rising costs of retirement plans will restrict the ability of governments to adequately fund other priorities such as resources for public schools.

This article summarizes some of the most important lessons from a recent NBER project on state and local pensions. We begin in Section 2 by assessing the state of public sector pension funding in the U.S., discussing the magnitude of underfunding both in absolute terms and relative to other economic measures. We then turn in Section 3 to an analysis of the optimal funding and asset allocation of public pension systems. In Section 4, we discuss how we got here, before turning in Section 5 to the much harder question of the likely effects of a number of policies that have been proposed in other forums. Section 6 highlights many unanswered questions about the labor market effects of public pensions and expands the analysis to include retiree health plans.

[1] Unionized private sector workers are substantially more likely than their non-unionized counterparts to have access to DB plans, as well as to have retiree health insurance. See the National Compensation Survey by the Bureau of Labor Statistics, specifically http://www.bls.gov/ncs/ebs/benefits/2010/ownership/private/table02a.pdf

2 What is the state of public pension funding in the U.S.?

Although there is disagreement between economists and plan administrators on the size of the unfunded liabilities, everyone agrees that state and local pensions in the U.S. have assets that are substantially below the present value of the promises that have been made to public sector workers and retirees. The extent of disagreement over the size of the liabilities is nonetheless surprising. While some uncertainty over the size of the liabilities is warranted given the need to project future wages, for example, the core debate in this area is over the choice of the appropriate discount rate.

Most Ph.D. economists and finance scholars believe that the appropriate way to discount any stream of cash flows is to use a discount rate that reflects the risk of the cash flows being discounted. Even with that near-consensus, however, there is considerable room for discussion about how to come up with an appropriate rate for discounting future public pension liabilities, given that public pension liabilities are not traded assets and the fact that in some states (e.g., Illinois), public pension promises are backed by constitutional non-impairment clauses while in others (e.g., Indiana) the state has much more flexibility to reduce pensions. For example, Brown and Wilcox (2009) and Novy-Marx and Rauh (2011) discuss the pros and cons of using treasury rates, municipal bond rates, and swap rates. Using such an approach, Novy-Marx and Rauh (2011) estimate that the present value of state and local liabilities exceeded the value of public pension assets by approximately $3 trillion as of June 2009.

In sharp contrast to modern finance theory and the views of most economists, many plan administrators, policy-makers, DB plan actuaries, labor unions, and at least one think tank[2] hold the view that it is appropriate to discount the future value of liabilities using the expected rate of return on plan assets. It is difficult to assess the degree to which the reason this view is so widely held is a result of widespread financial illiteracy or for political economy reasons (e.g., it is easier to maintain public support for public DB plans and/or to circumvent balanced budget rules if the true cost to taxpayers is understated). Indeed, discounting at an expected return has no rigorous theoretical foundation. Yet, it is an integral part of the Government Accounting Standards Board (GASB) guidelines that all state and local pension systems follow. As a result, nearly all public plans discount their liabilities using an inappropriately high discount rate, usually 7–9% instead of a rate closer to 4% that would approximate the real rate. This is a methodological choice that results in the official measures of underfunding being much smaller than the true liabilities facing the plan. For example, Munnell *et al.* (2011, this volume) find, using a sample of 126 public plans, a funding ratio in 2009 of only 78% when assessed using GASB standards, which translates into an aggregate underfunding of about $800 billion. While this is still a very large number, it is only a fraction of the estimates using more appropriate discount rates.

[2] See Center on Budget and Policy Priorities (2011). http://www.cbpp.org/cms/index.cfm?fa=view&id=3372

3 Should we pre-fund public pensions, and, if so, how?

Much of the academic and public discussions over pension funding implicitly assume that the appropriate benchmark is 100% funding. In the context of the private sector in the U.S., the fact that corporate pension benefits are guaranteed by the Pension Benefit Guaranty Corporation creates clear economic reasons for the federal government to enforce full funding in order to limit taxpayer liability.[3]

At the other extreme, it is quite common for national DB plans – including the U.S. Social Security system – to be funded primarily on a pay-as-you-go basis, with little if any pre-funding of benefit obligations. Indeed, even after netting out the $2.54 trillion balance in the Social Security trust funds at the end of 2009, the U.S. Social Security system is underfunded by $5.4 trillion over the next 75 years on an open-group basis, or $16.1 trillion over an infinite horizon (2010 OASDI Trustees Report). The optimality of pay-as-you-go versus funded systems is a long-standing debate in the economics literature, starting with Samuelson's classic paper (1958) in which he showed that a pay-as-you-go system provides a rate of return that is equivalent to the growth in the tax base. Subsequent work, such as Feldstein's (1974) paper, showed that an important economic cost of such a system is that it has a substantial negative impact on the capital stock in the U.S.[4]

This raises a natural – and important – question: what is the optimal level of funding for state and local DB plans? There are a number of important arguments in favor of a high level (if not full) funding. For example, Munnell *et al.* (2011, this volume), argue that 'each generation of taxpayers should pay the full cost of the public services it receives. If a worker's compensation includes a defined benefit pension, the cost of the benefit earned in that year should be recognized, and funded, at the time the worker performs that service, not when the pension is paid in retirement.' An important question addressed by several of the papers in the volume is how to quantify that cost.

Assuming that the true costs of providing DB pensions can be properly measured, the question of the optimal funding level is a question that relates to the optimal level of public debt. Munnell *et al.* (2011, this volume) point out that requiring that state and local governments pay the full annual costs might also limit the accounting 'game' by which governments award excessively generous pensions as a substitute for current wages, thereby transferring the fiscal burden from current to future generations. If pension accounting is opaque to taxpayers but the costs regular borrowing through bonds is transparent, then to the extent that a state has to borrow, there would be a justification for doing so in the form of bonds and not from public employees in the form of pensions. Indeed, in terms of the intergenerational consequences of state debt, a starting point is the famous doctrine of Ricardo (1820), which postulates the irrelevance for public welfare of financing current spending with debt versus taxes. Of course, one of the conditions required for Ricardian equivalence is

[3] For a fuller discussion of the PBGC and the structural flaws in the program's design that result in large underfunded pension liabilities being hoisted on the PBGC, see Brown (2008).

[4] For a rich discussion of the economics of pay-as-you-go versus funded social security systems, see Feldstein and Liebman (2002).

that the public is aware of the level of total state indebtedness (see Novy-Marx and Rauh, 2009).

Furthermore, borrowing from public employees in the form of pensions can have particularly dire consequences if the state becomes unable (or taxpayers become unwilling) to meet the full obligation. Thirty percent of public employees in the U.S. are not on Social Security, and there would be serious legal, practical, and political consequences of attempts to restructure this pension debt.

However, there are also a number of potential reasons that full-funding of pensions may not emerge as the optimal decision. For example, one can imagine a positive political economy model (that, at least anecdotally, appears to have some historical support in states like Illinois) in which short-time-horizon politicians have an incentive to increase pension benefits when funding levels are high, not placing sufficient weight on the fact that they might be unable to reduce them (due to constitutional prohibitions) when funding levels are lower.

Bohn (2011, this volume) develops a model that indicates that state and local governments should not fund these plans but rather pay for all benefits out of current revenues. This is a provocative idea that merits further consideration by other scholars as it goes against much conventional wisdom and is in opposition to the decisions of virtually all state and local governments to at least partially fund their plans. In a model in which most citizens are borrowers, to the extent that a state has the ability to borrow more cheaply than taxpayers (a condition that may or may not hold once one takes into account the tax subsidy for borrowing), Bohn shows conditions under which the optimal level of funding may, in fact, be zero. He explores the role that differences in intermediation costs between voters and governments plays in the optimal pension funding problem.

Once an entity decides on the level of funding that it wishes to undertake, a related decision is how to invest the assets that it sets aside for this purpose. Some authors (e.g. Black, 1989; Bodie, 1990) have suggested that already-accrued public pension liabilities (technically, the Accumulated Benefit Obligation or ABO) ought to be backed by a bond portfolio with a comparable duration. Such a portfolio would effectively insulate a plan's funding status from fluctuations in interest rates (and would obviously insulate plan funding from equity market fluctuations as well). Others (e.g. Lucas and Zeldes, 2006) have suggested that to the extent that part of the pension liabilities are a function of future wages growth, and to the extent that wages and stock returns are correlated over long time horizons, that an optimal portfolio would include some equity holdings. The same authors have also pointed out that this effect must be balanced against the distortionary costs of potentially having to increase taxes substantially in the future if the assets fall short of the required levels to pay benefits (Lucas and Zeldes, 2009).

Pennacchi and Rastad (2011, this volume) enter this discussion of optimal asset allocation by considering cases in which pension fund managers maximize the utility of wealth of a representative taxpayer. They find that there is a strong case to be made for hedging the liabilities in order to minimize funding risk. They also discuss, however, circumstances in which pension funding risk might be more or less beneficial to taxpayers. For example, if a significant portion of taxpayers lack access to risky

investments, taking on some pension investment risk could provide those taxpayers with such exposure. Additionally, they discuss that when a pension fund runs a surplus, the surplus may not accrue to the taxpayer.[5] If the surplus is shared with public employees (through higher benefits or reduced contributions), then the taxpayers may not benefit from the risk premia generated by equity investment.

Shifting from a normative to a positive theory of public pension investment behavior, Pennacchi and Rastad note that the practice of delegating pension fund management could lead to agency problems, such as if the pension board or staff maximized their own utility rather than that of a representative taxpayer. Because the stated objectives used to guide pension plan investment decisions often downplay the risk of pension liabilities, the board and staff may be judged against an alternative benchmark such as the investment performance of peer pension plans. These agency problems can lead to excessive equity investment.

They then test these models using panel data on 125 state pension funds from 2000 to 2009. Consistent with the hypothesis of agency behavior on the part of public pension fund managers, they find evidence that funds chose greater overall asset – liability portfolio risk following periods of relatively poor investment performance. In addition, they find that pension plans that use higher discount rates for their liabilities tend to choose riskier asset portfolios. Interestingly, consistent with a desire to gamble for higher benefits, pension plans take more risk when they have greater representation by plan participants on their Boards of Trustees.

4 How did we get here?

The proximate cause of the current funding problems facing many state and local pensions is the 'Great Recession.' As discussed in Munnell *et al.* (2011, this volume), the substantial decline in asset values reduced the market value of equities held by state and local plans by approximately $1 trillion. There is no question that a $1 trillion loss had an enormous impact on funding levels. However, it is also important to recognize that the real roots of the funding shortfalls go far deeper.

As a starting point, a natural first question is why state and local pension plans were exposed to so much equity risk in the first place. As discussed in Pennacchi and Rastad (2011, this volume), a portfolio that hedges the pension liabilities should have a majority of its funds invested in fixed-income securities. Instead, however, the typical portfolio held by public pension plans has only about a 25% allocation to fixed income, with the rest in equities and equity-like asset classes including private equity and real estate. As noted in the prior section, the authors also find evidence that funds chose greater overall asset liability portfolio risk following periods of relatively poor investment performance. Overall their evidence is consistent with the notion that public funds have an incentive to gamble for higher returns with risky assets.

[5] This is related to Bodie (1990), in which it is pointed out that in a corporate pension plan, shareholders may not fully benefit from overfunding, which similarly informs the asset allocation choice for corporate sponsors.

A second important contributor to the poor funding status of state and local pension plans is – in many states – the history of consistently failing to make sufficient annual contributions. Schieber (2011, this volume) provides an interesting history of the development of public sector retirement plans. Clark *et al.* (2011 forthcoming) provide a comprehensive history of the development of public pension plans in the 20th century that explains the consolidation of plans within states, the decisions to adopt DB plans throughout the century, and the reassessment of these plans at the beginning of the 21st century.

A third factor is a history of increasing benefits during 'good times' without taking into account constraints against lowering benefits during bad times. Schieber (2011, this volume) discusses a number of cases in which states and municipalities raised benefits for public employees without adequate consideration of the long-run consequences of the higher benefits.[6] An interesting question for future research is whether such benefit increases are related to the funding status of the plan as measured using the expected rate of return on assets. If the liabilities had been measured using the real interest rate the funding ratios would have been much lower and so one can wonder whether reporting the true liabilities would have forestalled the rush to increase benefits.

The tendency to increase pension benefits is related to the question of whether benefits in the public sector are greater than those in the private sector in order to offset lower wages. Schieber (2011, this volume) reviews the literature that compares the compensation of public employees to that of comparable employees in the private sector and concludes that if the objective of policymakers has been to offer generous benefits to offset lower wages, they have been successful and perhaps even provided benefits that make total compensation for public employment greater than that in the private sector of the economy.

Putting it all together, the reason public pensions find themselves underfunded is the result of insufficient contributions, excessive benefit increases during times of reported overfunding, and poor asset–liability risk management. The real question for academics and policymakers is whether rigorous empirical and theoretical research can affect accounting standards, funding strategies, and the actions of political bodies concerning public pension plans. There are important issues that need additional study if the current pension problems are to be resolved.

5 Where do we go from here?

Diagnosing the problem is the easy part. Much more difficult is determining how to solve the funding problem that now faces most state and local governments. To be clear, the difficulty is not a conceptual one – one must either dedicate new revenue to the pension systems, or one must cut the benefits being paid out from the system. Rather, the difficulty arises from legal constraints as well as political constraints due to the enormity of the changes required.

Starting on the expenditure side, a number of states appear to be constitutionally constrained in their ability to reduce pension benefits on existing workers.

[6] Clark, *et al.* (2011 forthcoming) estimate that between 1982 and 2006 the generosity of public plans was increased by about 10 percent for career employees.

As discussed at length in Brown and Wilcox (2009), seven states have constitutional 'non-impairment' clauses that prevent the legislature from undertaking any action that would 'impair' benefits to pension participants. Historically, there has never been a case in which pensioners protected by such a system have experienced a reduction in their benefits, even in extreme cases such as the New York City financial crisis of 1975 or the Orange County bankruptcy of 1994. Even in states without non-impairment clauses, courts have often interpreted the contracts clauses of state constitutions as providing protections, at least for benefits accrued to date. While some courts in some states (e.g. Indiana) appear to have provided legislatures with tremendous flexibility when it comes to reducing pensions, most states are constrained. Of course, even in those states that are legally permitted to reduce pension benefits, politicians face tremendous political pressure from public sector workers and the unions that represent many of them.

As a result of these constraints, benefit reductions are sometimes targeted at 'future' workers, i.e. those not yet hired. For example, in 2010 Illinois passed a pension reform law that substantially reduced DB pension benefits for workers hired on or after 1 January 2011. As a result, the state now has a 'two tier' pension system, with meaningful differences in benefit generosity based on whether one was hired before or after that date.

Novy-Marx and Rauh (2011, this volume) study the financial impact of several policy reforms. Unfortunately, they find that even rather significant cuts in benefits would not be sufficient to close the funding gap. For example, they calculated that a 1% point reduction in Cost-of-Living Adjustments (COLA's) would reduce total pension liabilities by approximately 10%. Adjusting early retirement benefits in an actuarially fair way would reduce liabilities by, only 2–5%. Similarly, increasing the retirement age by 1 year would reduce liabilities by 2–4%. Even more dramatic reforms – such as the complete elimination of COLAs or moving to a retirement age that mirrors Social Security – would still leave enormous unfunded liabilities (in the range of $1.5 trillion).

As a result, it appears that taxpayers are going to bear the brunt of the legacy pension costs facing state and local governments. Importantly, even fundamental changes in the pension structure (e.g. moving state and local workers into Social Security, or partially or wholly replacing the states' DB plans with DC plans) would not eliminate the existing debt overhang. Such reforms may be a useful way forward if they impose funding discipline on states and/or if existing participants are willing to accept a benefit reduction in return for the opportunity to diversify out of an underfunded state pension plan. But such reforms – unless they reduce the present value of future benefits to employees – will not eliminate the obligation of states to make good on already-accrued pension benefits.

6 Other key aspects of retirement benefits

The first five papers in this special issue primarily focus on the funding status and financial management of pension plans. Each of these papers represents new research on one or more aspects of the funding of pension plans for public employees. There

are several other important aspects of retirement benefits that merit further research. The final three papers in the volume examine plan design issues, labor market effects of public pension plans, and retiree health plans. The focus of these papers is highlighting what we know about these issues from research on private plans and to identify important areas in need of further research.

State and local pension plans different in several respects from such plans in the private sector. Beshears *et al.* (2011, this volume) provides an in-depth review of the basic plan characteristics for the largest state and local plans. Their analysis shows that public plans are in large measure still DB plans, they have much lower normal retirement ages than private sector plans, are more generous, and they are not subject to ERISA legislation. Career employees in the public sector often receive pension benefits that represent 75–80% of their final average salaries. This is substantially higher than most private sector plans would provide. In reviewing public sector pensions, it is important to recognize that in some states public employees are not covered by Social Security and this explains much of the difference in generosity across these plans.

An emerging trend in the public sector is to allow employees the choice of enrolling in the DB plan or selecting a defined contribution (DC) plan. In general, these primary DC plans in the public sector are mandatory (if the individual chooses not to enroll in the DB plan) and contribution rates are required by both the employer and the employee. Other states have adopted plans that include a less generous DB plan combined with a mandatory DC plan. While states that are retaining their DB plans are making changes in an effort to reduce plan costs including raising retirement ages, increasing vesting requirements, increasing the years used to determine the final average salary, adopting anti-spiking rules, and increasing employee contributions. It seems clear that the next decade will consist of fundamental changes in public pension plans around the country. Given the pace of change, it is important for economists to provide critical assessments of the features of DB and DC plans to help policymakers develop optimal plan design for their employees.

Retirement plans are a component of total compensation and employers adopt and structure these plans in order to achieve certain human resource objectives. DB benefit plans have important economic incentives that affect the desirability of employment, turnover rates, and age-specific retirement rates. Friedberg (2011, this volume) reviews the literature concerning the importance of these effects in the private sector and also for public school teachers. The value of participating in a DB plan is rather low in the first years of employment, spikes at vesting, rises rapidly as the employee approaches the early and normal retirement ages and then declines. Understanding the incentives associated with this pattern of accrual is essential to developing the optimal pension plan for a firm or government. In today's labor market, governments must decide if they want to encourage workers to retire in their 50s as most current public DB systems do through actuarially generous early retirement packages.

Another key aspect of most public DB plans is how they treat employees who are first employed in their 20s and leave public service after 5, 10 or even 20 years. These shorter career employees often receive very low retirement benefits despite years of

employment. An important question is whether public employers want to continue to offer plans that discourage individuals from entering public employment if they do not plan to remain for a full career. DC plans treat shorter career workers much better than DB plans as pension accruals are greater in the DC plans in the early working years. Additional research on the incentives of alternative plan designs and different characteristics of DB and DC is very important if public plans are to be reformed, while continuing to help attract, retain, and ultimately retire quality workers into public employment.

In addition to participating in pension plans, virtually all public employees also are eligible for retiree health plans. Over the past 5 years, public employers have been required to issue actuarial statements showing the accrued liabilities of these plans, any assets in funds, and the unfunded liabilities associated with the promise of health insurance to retirees. While total liabilities of public retiree health plans are much lower than those associated with public pension plans, the reported unfunded liabilities are of the same magnitude. In general, these plans are the same health plan offered to active workers. Clark and Morrill (2011, this volume) provide evidence on the characteristics of state retiree health plans and examine their variation across the states.[7]

The rising cost of these plans has become a major issue for state and local governments and the public finance implications are very important. In contrast to the funding of pension plans, most states operate these plans on a pay-as-you-go basis and only a few states have established trust funds for their plans. The basic characteristics of retiree health plans differ substantially across the states. Some states allow retirees to be covered by the health plan for life without paying any premium to be covered by the plan, while other states require the retiree to pay the full premium associated with its health plan. Not surprisingly, the unfunded liabilities associated with the plans differ substantially depending on the portion of the premium paid by the state. It would be interesting to have a better understanding of why these plans differ so greatly across the states.

Economists have produced numerous papers estimating the effect of pensions on worker behavior but almost none of the effects of retiree health plans of turnover and retirement. As the annual cost of providing health insurance to retirees soars, governments are struggling with methods of slowing the increase in expenditures. It is important for governments to understand how changes in their plans will affect cost and also the behavior of their employees. Specifically, changes in retiree health plans are likely to affect retention and retirement decisions. Recognizing how employees will respond is essential to determining the best methods of restraining the growth of expenditures and liabilities of these plans.

7 Conclusions

The research in this special issue along with other research suggests several important conclusions concerning public sector retirement benefits. First, public sector pension

[7] Clark and Morrill (2010) analyze retiree health plans for general state employees and public school teachers in all 50 states including plan characteristics and unfunded liabilities.

plans are more generous than comparable plans in the private sector. They tend to pay higher benefits per year of service and encourage younger retirement ages. Because of these plan characteristics, these plans cost more than private sector pension plans. Second, many governmental units have not provided sufficient annual contributions to their pension funds and as a result, their plans are underfunded and in some cases dramatically so. The economic downturn and decline in equity values has exacerbated the poor funding of these plans. Third, compared to reported liabilities, public sector plans are even more poorly funded than official estimates indicated due to the use of discount rates that are much higher than the rate that should be used to value accrued liabilities.

Fourth, public pension fund managers do not appear to invest in a manner consistent with asset–liability matching. The portfolios of public pension systems bear some resemblance to those of university endowments and foundations, despite the fact that public pensions have even less ability to scale back spending if risky assets underperform expectations.

Fifth, plan design and characteristics are very important and they influence worker decisions. Virtually all full-time public employees are covered by a pension plan and, in contrast to private sector plans, they tend to be in DB plans which discourage turnover during most of one's career and provide large incentives to retire at relatively young ages. However, these plans treat shorter career workers very poorly. Furthermore, one approach taken by some states to mitigating funding problems is to hire new workers into DB benefit structures that are less generous but entail the same level of employee contributions. New generations of public employees might worry that they will effectively be taxed to pay for unfunded legacy liabilities of more senior generations of workers. As a result, public employers seeking to reduce pension costs must consider the impact of such changes on their ability to attract, retain, and retire quality workers.

Seventh, the cost of retiree health plans is soaring and, in most states, and these plans are completely pay-as-you-go. The variation in the cost of health plans across the states is much greater than the variation in pension plans. Similar to private employers, employers in the public sector are struggling with the cost of these plans and are implementing an assortment of policy changes in an attempt to slow the growth rate of their costs.

Finally, public retirement plans have received far too little attention from pension policymakers, academic economists and finance experts, and taxpayers. New empirical and theoretical research is needed to provide needed information to policymakers as they attempt to reform public sector retirement plans. This special issue is a first step in the effort to shed new light on these important problems.

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