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# Public Sector Pension Plans: Lessons and Challenges for the Twenty-First Century

## Disciplines

Economics

## Comments

The published version of this Working Paper may be found in the 2001 publication: [\*Pensions in the Public Sector\*](#).

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# **Pensions in the Public Sector**

Edited by

Olivia S. Mitchell and Edwin C. Husted

Pension Research Council

The Wharton School of the University of Pennsylvania

**PENN**

University of Pennsylvania Press

Philadelphia

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Printed in the United States of America on acid-free paper

10 9 8 7 6 5 4 3 2 1

Published by  
University of Pennsylvania Press  
Philadelphia, Pennsylvania 19104-4011

Library of Congress Cataloging-in-Publication Data

Pensions in the public sector / edited by Olivia S. Mitchell and  
Edwin C. Hustead

p. cm. "Pension Research Council Publications"

Includes bibliographical records and index

ISBN 0-8122-3578-9 (alk. paper)

1. State governments—Officials and employees—Pensions—  
United States. 2. Local officials and employees—Pensions—  
United States. 3. United States—Officials and employees—  
Pensions. I. Mitchell, Olivia S. II. Hustead, Edwin C., 1942–.  
III. Wharton School. Pension Research Council.

JK791 .P45 2000

331.24/29135173.—dc21

00-059384

**I**

**The Structure and  
Function of Public  
Pension Systems**

## Chapter 1

# **Public Sector Pension Plans**

## Lessons and Challenges for the Twenty-First Century

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Edwin C. Hustead and Olivia S. Mitchell

Pension systems for government employees represent an important and influential segment of the pension market. In the United States, for example, pension plans for state and local employees include almost 13 million workers (Mitchell et al., this volume). Military retirement programs cover an additional 3 million personnel, and the federal government has several of its own plans adding almost another 3 million covered employees to the public pension fold (Hustead and Hustead, this volume). Public pensions are also widespread in Canada (Pozzebun, this volume). Not only are the numbers of included employees impressive: the financial clout wielded by these plans is also enormous. In the United States, state and local employee pensions controlled over \$2.4 trillion in assets in 1998, while federal and military pension assets stood at almost \$700 billion.

With so many participants and so much money at stake, it is only reasonable that these financial institutions have come under scrutiny of late. How are public pension plans structured, in terms of their benefit promises and financing? How is the public pension asset pool invested, and what issues are influential in designing the investment practices and resulting returns? What risks do participants bear, in these plans, and which risks are explicitly or implicitly passed on to other stakeholders including taxpayers, when pension promises are made? In this volume we provide answers to these questions by offering an overview of the benefits, financing, governance structure, and challenges facing a wide range of public plans in North America. The analysts writing herein speak to public plan benefits specialists, as well as policymakers, pension plan participants, and taxpayers, and those from the private sector interested in lessons from the public plan arena. While our

focus is mainly on the United States and Canada, the findings here should also be of keen interest to those in other countries, as well.

Several different types of plans are examined here, including pensions for employees of state governments, local governments, teachers, uniformed officers (police and firefighters), the armed forces, and federal civil servants. The analysis in each case focuses first on the structure of the plans themselves, and next asks how good a job are they doing for the stakeholders involved. The stakeholders in public plans include participants and taxpayers, who must in turn ask how well these plans are funded, how they are governed, and how pension assets are performing. We also discuss possible arenas in which the form and structure of the public plan environment could be improved, including changes in the regulatory and tax environment in which they operate. Because private sector pensions operate under a somewhat different legal setting from public plans, we seek to draw lessons for private pensions from the public experience, and vice versa. Finally, we identify several challenges for the future that confront public sector pension plans. Some of these are also relevant to the workforce as a whole, involving the fact of population and workforce aging, while others are more specific to public plans, pertaining to the special governance issues that arise when plan sponsors are operating in the interests of both plan participants and taxpayers. We conclude with an analysis of several interesting case studies, ranging from the special circumstances of the District of Columbia to the issues linking pension and state budgets as in New Jersey and Florida, and governance as practiced in Pennsylvania.

### **The Structure and Function of Public Pension Systems**

Most public sector pensions in North America are of the defined benefit variety, as indicated by Mitchell et al. (this volume) who focus on state and local plans, by Hustead and Hustead (this volume) who examine military and civil servant plans, and by Pozzebon (this volume) who reviews the state of Canadian public employee pensions. Beyond this broad generalization, there is tremendous diversity, since different types of pension systems cover state and local governmental employees, federal workers, and members of the military. Further the plans differ, one from the other, in terms of their benefits, their contributions and financing arrangements, and their governance structure. For example, in the United States, about three-quarters of all state and local employees are included in the national social security system, implying that here the public employee pension may play a relatively smaller role in meeting retirement income needs, as compared to plans that have opted out of social security. Similarly, 40 percent of federal employees are currently not included in social security, though all federal employees hired after 1983 and all military personnel have been included in the

national social security program. In the future, social security will probably be extended to cover all governmental employees, since virtually all plans to reform the U.S. social security system require coverage for all state and local employees, as is currently the case for private sector employees.

In the United States, public pension plans are often seen as paying rather generous benefits to retirees, particularly compared to those provided to their private sector counterparts. One way to judge this contention is to compare benefit formulas, where a “benefit multiplier” is applied to years of service times preretirement pay. Private sector retirement plans tend to provide a multiplier of less than 1.75 percent of pay, and use the retiree’s final five-year average salary. By contrast, the majority of state and local plans that use this approach employ a multiplier of 1.75 percent or higher; the federal Civil Service Retirement System (CSRS) also uses a multiplier that averages over 1.75 percent. In addition, CSRS and over 60 percent of state and local plans base benefits on the highest three-year average pay. The relative advantage of governmental plans compared to private sector plans increases after retirement, inasmuch as many state and local plans, as well as the CSRS, index benefits to inflation. By contrast, few private sector plans have automatic indexing and some never increase benefits after retirement. Most private sector plans rely instead on ad hoc inflation adjustments, which typically make up for less than half of inflation.

On the other hand, these more generous public plan benefits are often “paid for” by higher employee contributions than is typically found among private sector employees. As we show below, public employee contributions average 5 percent of pay, with higher rates (6–7 percent) for plans covering teachers, police, and firefighters. By contrast, in the private sector, it is uncommon for participants to pay out of workers’ pay, as is true in the military retirement systems. It must be recognized, of course, that the cost of retirement benefits is related to more than simply benefit levels and employee contributions. Investment performance also plays a role in influencing the cost per dollar of benefit. For example, the CSRS employer contribution per dollar of benefits is higher than that of most other plans because CSRS is invested in U.S. Treasury-backed securities expected to earn 7 percent a year. By contrast, in recent years, many state and local plans adopted investment policies similar to those of private sector pensions, with heavy weighting in equities. This change in investment policy, coupled with a strong stock market, has resulted in lower employer contributions.

An important new development that we highlight in this volume is that some government employers have begun to move gradually to a defined contribution approach, while others have adopted a hybrid approach. This development is being adopted by public sector employers to better meet the demographics of tomorrow’s workforce, according to Eitelberg (this volume) and Fore (this volume). One of the first defined contribution plans in



North America for public employees was the U.S. Federal Employees Retirement System (FERS), a plan that covers federal employees hired after 1983. As is the case in many private sector pensions, FERS combines both a defined benefit and a defined contribution plan. Under this plan, the combined income from both plans plus social security is about the same as was payable under the precursor plan, CSRS, but the mix of benefits is much different. Short-service employees at young ages will do much better under the new plan, FERS, than they would have under the old plan, CSRS. But full-career employees retiring with unreduced benefits will do much better under CSRS than under FERS. In this way, the new model of public pension plans is seen by employers, and often by employees, as better adapted to the mobile, investment-oriented workforce of the twenty-first century.

### **Public Pension Plan Finances**

Pension plans represent long-term contracts between employers and the plan participants, who give up current salary either directly through salary reduction or indirectly through foregone earnings. This is done in exchange for future retirement benefits payable by the pension plan. In the case of a defined benefit plan, the retirement promise is financed by contributions and returns on invested assets. Figuring out how much must be contributed, and how the assets should be invested, constitutes a major task of the public pension plan managers. In general, contributions must be determined based on plan obligations, which are in turn determined by actuaries who conduct valuations of the plan. Assumptions play a key role, including anticipated age, service, and compensation of the plan's membership with demographic assumptions related to mortality, disability, and probabilities of retirement, and with economic assumptions regarding wage increases, inflation, and projected rates of return on plan investments (Husted, this volume). The resulting valuation gives employers a measure of the plan's long-term liabilities and the contributions required to finance the long-term liabilities in an orderly and systematic manner through time (Mitchell et al., this volume).

In practice, of course, public plans differ from one another in terms of the underlying assumptions they use, and actuaries also can select among a range of methods to determine the pension plan's liabilities. In addition, alternative methods may be employed to determine the value of plan assets available to fund the promised pension benefits; it is not uncommon for assets in public plans to be reported in such a way as to reduce the volatility of year-to-year market fluctuations. For all these reasons, the status of public plans is not always transparent or comparable across systems. Despite these caveats, it appears that in the United States at least, state and local plans hold pension assets equal to 88 percent of liabilities, with some-

what higher funding ratios among state and local employee plans (90 and 97 percent, respectively) as compared to systems covering teachers and public safety employees (82 and 88 percent respectively; Mitchell et al., this volume). This is an improvement in the funding ratios of most plans over the last generation. The strong performance of the stock market has contributed to the improvement in funding status, to some extent as a result of increasing equity investment. The "flow" funding ratio of 98 percent indicates that state and local employers have typically met their new pension obligations as they arise. By contrast, the federal government pension plans prove to be much less well funded. In particular, the CSRS fund is not fully financed and the military benefits are funded over a much longer period than common for state government plans. The combined unfunded liability of the military and civilian systems is estimated at over \$1 trillion.

One reason that state and local pension systems can boast such a strong funding stance today is that many of these plans invested heavily in stocks during the 1980s and 1990s. This would not have happened given investment restrictions and practices in place during the 1960s: indeed, for years, many public plans were prohibited from investing in anything but government bonds. The practice of requiring public sector plans to either invest in, or avoid, certain types of holdings is a very old one, as illustrated by Clark et al. (this volume) in their analysis of the Navy pension plan. But, as Munnell and Sunden (this volume) show, state and local systems have been allowed to gradually move increasing fractions of their assets into stocks in the last four decades. Today public pensions hold only slightly less equity (59 percent) than do private pension funds (64 percent) with the balance made up of more bonds (35 percent versus 29 percent). U.S. state and local plans also have some international equity exposure (11 percent) though less than that of private funds (14 percent).

Holding stock has benefited many governmental plans, but some restrictions remain for public pension plan managers. For example, Canadian public plans are still restricted from holding any more than 20 percent of assets in non-Canadian assets (Pozzebon, this volume). And in some cases, U.S. public sector pensions still face restrictions in terms of maximum ceilings that can be held in certain forms (e.g., venture capital). Whether it is a good idea for public pension stakeholders to have massive amounts of equity in the pension portfolio is also a matter of extensive and ongoing debate. Peskin (this volume) argues that public plans' assets should be chosen to match liability streams more precisely, rather than simply be invested in equities to the extent they are. A contrary view is taken by Munnell and Sunden (this volume), who argue that public pension stakeholders are better served by taking advantage of the equity premium. While this debate is not resolved here, the lines are clearly drawn and the choices illuminated.

Having recognized that the investment mix is rather similar between

public and private pension systems, it is logical that public plan investment returns should also track private plan returns. Of course, returns are also influenced by investment and other expenses that must also be taken into account in judging investment performance. In the public plans under study here, we find that per member costs averaged \$211 per member per year across all plans but were only one-third that level in a dollar-weighted computation. This suggests that larger plans incur substantially lower expense on an annual basis (Mitchell et al., this volume). Investment expenses computed as a fraction of system assets totaled 44 basis points but were only 27 basis points for the dollar-weighted total. Fees in this range are consistent with the lower end of institutional money management fees charged by pension investment managers.

### **Governance and Regulation of Public Pension Plans**

Governmental pension systems are generally managed by a board, with the group size and composition varying widely but averaging around eight members. We find that the majority of the members is appointed by politicians or serves *ex officio*; sometimes board members may be elected by plan participants. In general, these pension boards are directly charged with pension investment decisions (88 percent), most are directly responsible for benefits (71 percent), and most (84 percent) bear responsibility for asset allocation and actuarial assumptions needed to determine plan funding and contribution obligations (Mitchell et al., this volume). An interesting insight into how a specific board works appears in Brosius's (this volume) evaluation of the board structure, duties and responsibilities for the Pennsylvania State Employees Retirement System. A different perspective on governance structure, of the federal retirement systems including the Federal Thrift Retirement Investment Board, is examined by Hustead and Hustead (this volume).

Federal regulation of governmental retirement plans has important similarities with the private sector but also many differences. Crane (this volume) highlights key differences including exemption from financial oversight by the Internal Revenue Service and from insurance charges (and coverage) by the Pension Benefit Guaranty Corporation. Useem and Hess (this volume) link board structure with public plan investment policy. They find that retirement systems differ greatly in terms of their use of in-house versus external money managers, the extent to which boards oversee investment strategy, and the resultant investment performance of public plan assets.

## Looking Ahead

Looking across the many different public sector pension systems that have flourished in North America over the last few decades, several messages become clear. Although there are many types of benefit formulas, the main model for public sector pension provision has been the defined benefit plan. However, the status quo is changing in the face of workforce and other pressures. By comparison, private sector pensions have been subject to similar workplace pressures for a generation, and many private employers have already made the transition to hybrid or defined contribution plans, well ahead of the public sector developments.

Public pension plan benefit offerings have also been seen as relatively generous in the past, as compared to private pensions, but some of this apparent generosity is attributable to the fact that governmental participants were often not covered by social security in the past. If social security coverage were to be mandated for the remainder of public sector employees, it is likely that benefit and contribution rules will conform more closely to offerings in the private sector.

Regarding plan financing, most public pension plans today require contributions from both employers and employees, and most plans are relatively well funded, albeit with equities making up some 60 percent of the assets. In the face of this trend, some investment experts argue that pensions are investing too much in equities as compared to their pension liability structure. On the other hand, this investment mix is the result of public pension plan governance structures, which are quite diverse and generally involve politicians as well as plan members. It is interesting that virtually the same investment asset mix has emerged in the private sector, where the pension governance structure is based on fiduciary law embodied in the Employee Retirement Income Security Act of 1974 (ERISA). Part of the reason that investment practices appear so similar is, no doubt, that public plans are increasingly being held to the same performance standards as private investment managers. Another reason is that public sector investors have been attracted with high market rates of return and little apparent risk over the last twenty years. In many ways, public pension plans have benefited from shifts in investment practices, greater competition in investment practices, and increased transparency in reporting and disclosure that have today become the norm in private pension practice.

Our review of the public pension arena at the threshold of the twenty-first century finds a generally robust, well-funded, and reasonably well managed pension environment. Notwithstanding this positive assessment, many challenges remain for the future. The aging and more mobile workforce will exacerbate pressures to make changes such as replacing defined benefit plans with hybrid or defined contribution plans. It would also be pain-

ful if there were a substantial and long-term economic downturn. Pension funding ratios are quite healthy at present, but this is partly a result of strong stock returns—which may not persist in the future. In order to spread this risk of possible market downturn, public employers may feel the need to move to defined contribution, or perhaps hybrid, plans that shift capital market risk to participants. Bryan (this volume) has shown how a state budget crisis can influence public pension financing decisions; whether state budgetary fiscal problems might translate into pension problems on a broader scale remains to be seen. Finally, an important challenge will arise as the nation's social security system is reformed. Broader integration and design issues would be raised for most public—and indeed private—pension plans if the nation's "first-pillar" of old-age support were altered fundamentally.

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