

Report to Congressional Requesters

March 1996

PUBLIC PENSIONS

State and Local Government Contributions to Underfunded Plans







United States General Accounting Office Washington, D.C. 20548

Health, Education, and Human Services Division

B-262220

March 14, 1996

The Honorable Nancy L. Johnson Chairman, Subcommittee on Oversight

The Honorable Sam M. Gibbons Ranking Minority Member Committee on Ways and Means House of Representatives

Over 13 million state and local government employees expect to receive the pension benefits they have earned. If their employers are not currently on track to fully funding these pensions, some employees may ultimately receive less than expected unless additional revenues are provided.

Oversight or other protections for beneficiaries of state and local pension plans derive principally from the state and local laws that created such plans, their administration by state and local agencies, and ultimately their enforcement by the courts. Although federal pension laws impose funding requirements on private pension plans, they impose no such requirements on state and local plans.

This report responds in part to your request that we review the status of public pension plan funding. It focuses on the basic pension plans of state and local governments. Another report examines state and local supplemental retirement programs, such as section 401(k) or 457 plans, and a third report examines federal pension plans.¹

Regarding state and local pension plans, you asked us to provide information on the implications of underfunding. In addition, you asked us to provide recent data about the (1) funding status of such plans; (2) status of contributions to such plans, particularly underfunded plans; and (3) changes in the funding and contribution status over time.

To address your concerns, we researched and examined studies and literature on state and local government funding of pension plans. In particular, we analyzed data assembled by the Public Pension Coordinating Council (PPCC) from a survey representing 451 state and local pension plans that covered 76 percent of the active participants of such plans. Data for 1992 were the most recent available; we compared these

 $^{^1\!}See$ our forthcoming report on section 457 plans (GAO/HEHS-96-38); $\underline{Public\ Pensions:\ Summary\ of}$ Federal Pension Plan Data (GAO/AIMD-96-6, Feb. 16, 1996).

data with 1990 data from an earlier PPCC survey. We did not make any adjustments to the data reported by the plan sponsors. We also interviewed officials of selected plans. We performed our work from June 1995 through November 1995 in accordance with generally accepted government auditing standards. (See app. I for more information on our scope and methodology.)

Results in Brief

Although state and local governments rarely become insolvent or cease to operate, those with underfunded pension plans may face difficult budget choices in the future if they do not work toward full funding. Their future taxpayers will face a liability for benefits earned by current and former government workers, leaving these governments to choose between reducing future pension benefits or raising revenues.

Funding of state and local pension plans has improved substantially since the 1970s. After adjusting for inflation, the dollar amount of the unfunded liability has decreased by roughly half. Still, in 1992, 75 percent of state and local government pension plans in the PPCC survey were underfunded; 38 percent were less than 80-percent funded.

Sponsors of slightly more than half of plans in the PPCC survey made contributions that kept on schedule for paying off any unfunded liability. One-third of the pension plans, however, were both underfunded in 1992 and not receiving the actuarially required sponsor contributions. Of all plans with complete data, one-fifth were both underfunded and not receiving full contributions in both 1990 and 1992.

Background

In late 1992, about 13 million workers and retirees participated in state and local government pension plans. Eighty-seven percent of state and local full-time employees participated in defined benefit plans, while 9 percent participated in defined contribution plans. Some employees participated in both; 93 percent participated in one or the other.

In a defined benefit plan, benefits are established by a formula that is generally based on such factors as years of employment, age at retirement, and salary level. Employers and employees in most state and local plans contribute to a fund from which these defined benefits will be paid. Actuaries calculate the size of the fund that will be needed to pay these benefits on the basis of projections of fund investment earnings, mortality, and other factors. If the fund's assets are less than the projected liabilities,

the plan is generally considered to be underfunded. Actuaries also calculate the contribution amount needed to cover the liability that accrues each year and to pay an installment on any unfunded liability. Thus, if a plan sponsor is making these actuarially required contributions, the plan can be underfunded yet still on track toward full funding.

In contrast, a defined contribution plan, such as a 401(k) or 457 supplemental retirement account, sets the amount contributed to individual worker accounts. The balance in such an account at retirement, reflecting total contributions and investment earnings, determines the worker's retirement benefit. Thus, by definition, such a plan cannot be underfunded in an actuarial sense.

Oversight of State and Local Plans

For private-sector pension plans, the Employee Retirement Income Security Act of 1974 (ERISA) ensures that most promised employee benefits will be paid. If a company goes out of business and leaves its defined benefit pension plan without adequate funds, the business no longer has earnings with which to make further contributions to cover its pension obligations. Among other things, ERISA insures pension benefits against insufficient funding; the Pension Benefit Guaranty Corporation (PBGC) assumes the liability and assets of terminated private pension plans and pays the retirement benefits, subject to certain limits. ERISA also requires that plan investments be diversified and funded on a sound actuarial basis and that plan fiduciaries adhere to certain standards of conduct. Further, ERISA establishes a framework for enforcing its provisions involving three federal agencies: the Department of Labor, the Internal Revenue Service, and the PBGC.

ERISA does not apply, however, to state and local pension plans, nor does federal law impose funding requirements on them.² Instead, state and local pension plans are created and governed by laws of their respective governments, which specify any funding or other requirements. These laws, their administration by state and local government agencies, and ultimately their enforcement by the courts provide any protections the beneficiaries may have. For example, in all 50 states, statutes include provisions for fiduciary standards; in about half of the states, these provisions are similar to ERISA's. Also, about half restrict the types of investments that can be made. In addition, annual contributions to

²However, participants of government pension plans do enjoy tax deferral on contributions and investment earnings. To qualify for this tax deferral, plans must adhere to federal rules, including ones on coverage, participation, nondiscrimination, integration with Social Security, benefit distribution, and operating for the exclusive benefit of plan members.

56 percent of state and local pension plans are required to be actuarially based; for 40 percent of these plans, statutes set a specific contribution level, which in most cases is periodically adjusted to achieve actuarial balance, according to a state pension official. In addition, the plans are subject to review by state and local governmental audit agencies and legislative oversight committees.

Moreover, the Governmental Accounting Standards Board (GASB) sets accounting and reporting standards for state and local governmental entities, including pension plans. Most state and local governments adhere to these standards. GASB will soon require the reporting of a 6-year funding and contribution history for pension plans and, for plan sponsors, the reporting of a measure of the difference between actuarially required and actual contributions. According to a PPCC analyst, such reporting should provide further impetus to improve funding and contributions.

At times, perceptions arise that a state or local government is redirecting funds from a pension plan to meet other budgetary needs. For example, since 1992 California has attempted to delay its annual contributions of roughly \$500 million by more than a year, costing its Public Employees' Retirement System as much as \$50 million per year in interest. In other states, such as New York and New Jersey, the legislatures have attempted to change certain actuarial assumptions to lower contributions.³ Also, several state legislatures have encouraged pension managers to invest some portion of plan assets in ways that will promote economic development as long as these investments are sound. Some critics raise concerns that such targeted investments often are not sound, citing certain bad investments that lost millions.⁴ For example, in 1990, Connecticut's pension plan invested about \$25 million in Colt Industries, which in 1992 declared bankruptcy; the pension plan lost \$21 million.

State and local government plans nevertheless operate in public view, and some plan fiduciaries and others have filed suits against plan sponsors.

It is noteworthy, however, that changing actuarial assumptions is not necessarily inappropriate. After assessing pension fund performance and other factors, actuaries may change assumptions each time they make a new valuation and recalculate contributions required from plan sponsors.

³The pension plan sponsor's actuarially determined annual contribution is particularly sensitive to changes in the underlying assumptions. For example, a small change in the assumed rate of return on plan investments can produce a large change in calculated pension liabilities and, in turn, in the annual contribution needed from the employer; a 1-percentage point increase in the assumed investment return rate, with other assumptions remaining the same, could result in a 20- to 25-percent reduction in the required annual contribution.

⁴Public Pension Plans: Evaluation of Economically Targeted Investment Programs (GAO/PEMD-95-13, Mar. 17, 1995).

For example, according to pension officials and trade publications, in the California case, a superior court judge ordered the state to make the delayed contribution with accrued interest; the case is pending on appeal. Similarly, New York's highest court ruled that the New York law changing the actuarial methodology for the public employees' retirement system violated the New York State Constitution, and the state has agreed to a payment schedule that will make full restitution of missed contributions by 1999. As of this writing, the other cases involving New York and New Jersey are still pending in their respective courts. Regarding targeted pension investments, while some such investments do not earn competitive returns, others do.

Underfunding May Present Future Problems

Although incidents of insolvency or termination of state and local pension plans are rare, underfunding of such plans may present governments with difficult budget decisions in the future. If the actuarial value of a pension plan's liabilities exceeds its assets, a plan may still have enough funds to pay benefits for many years. If such underfunding persists, however, eventually—perhaps years in the future—the plan may lack enough funds to pay benefits. At that time, the sponsoring government will need to have made additional contributions to the pension fund. Or, a government may change the law to reduce benefits or postpone benefit increases that offset inflation, depending on the law that created the plan and the state constitution or municipal charter that governs lawmaking. Thus, the ability of state and local governments with underfunded plans to meet their pension obligations at some future date will depend on balancing competing budgetary demands and possibly on the willingness of their taxpayers to meet the cost.

Moreover, if pension benefits are not fully funded, the fiscal burden of providing for them can grow quickly as a share of the budget under various circumstances. Benefit costs can increase rapidly if the number of retirees surges. Also, government revenues can grow slowly if the tax base decreases or tax rates are cut, even though promised benefits have already been determined for years to come. In fact, the ratio of active workers to retirees is declining in the state and local sector,⁵ which means that the cost of paying benefits for previous years' employees is growing relative to the cost of paying current employees. If benefits are not fully funded, the relative fiscal burden of providing for them will grow as well. Also, the

⁵1990 Comparative Study of Major Public Employee Retirement Systems, State of Wisconsin Retirement Research Committee, Staff Report No. 79 (1990).

prospect of such budgetary pressures can significantly affect the sponsoring government's bond ratings.

In addition to concerns that full benefits might not be paid as promised or that the fiscal burden of doing so might be excessive, underfunding of state and local plans implies that the cost of government has been partially shifted from one generation of taxpayers to another. This year's cost of government includes the cost of pension benefits that employees earn with this year's work.

Underfunding can arise when pension contributions do not fully cover the cost of pension benefits that workers earn in a given year. Underfunding can also arise for other reasons, however, such as pension plan investments' not earning as high a return as projected. Actuarially required contributions include an installment on the amount needed to amortize the underfunded amount. Thus, undercontributing arises when the sponsoring government is not paying enough either to cover the pension liability incurred this year or to amortize this year's share of the unfunded liability or both.

A number of federal pension plans also have unfunded liabilities; however, arrangements have been made to fund the liabilities in the future. More importantly, the funding status of federal pension plans does not have the same implications as that of state and local plans. Unlike state and local pension assets, the vast majority of federal pension assets must by law be invested in nonmarketable U.S. Treasury securities. In effect, federal pension assets largely represent government promises to pay benefits, rather than investments that can be converted to cash. When the Treasury pays benefits now or in the future, it must obtain the money either from tax revenues or borrowing, regardless of the plans' technical funding status.

State and Local Pension Underfunding Has Decreased, but Underfunded Plans Remain Although underfunding of state and local pensions has decreased considerably since the mid-1970s, underfunded plans remain. The unfunded liabilities of all state and local government pension funds then totaled \$150 to \$175 billion, according to the U.S. House of Representatives Pension Task Force; adjusting for inflation, this equals about \$400 billion in 1992 dollars. In 1992, unfunded liabilities totaled roughly \$200 billion, according to our estimate from the PPCC sample.

⁶Public Pensions (GAO/AIMD-96-6, Feb. 16, 1996).

⁷The 1975 estimate is based on a different, more limited sample, so comparing it with our 1992 estimate has limitations. Still, the change in funding status is great.

Thus, the unfunded liability has decreased by about half in constant dollars. Also, in the mid-1970s, the funding ratio was roughly 50 percent. The 1992 funding ratio for plans in the PPCC sample was 82 percent (see table 1).8 (The funding ratio is the proportion of pension liability covered by the value of plan assets.)

Table 1: Funding Status of State and Local Pension Plans, 1992

| | State | | Loc | ala | Total | | |
|-----------------------------------|-------|---------------|-------------------------|-----------------|-------------------------|-----------------|-------------------------|
| - | Nun | nber of plans | Funding ratio (percent) | Number of plans | Funding ratio (percent) | Number of plans | Funding ratio (percent) |
| Underfunde plans | ed | 81 | 79 | 198 | 73 | 279 | 77 |
| Fully funded and overfunded plans | k | 25 | 117 | 72 | 116 | 97 | 117 |
| All plans | | 106 | 85 | 270 | 77 | 376 | 82 |

^aLocal plans include all plans not sponsored by a state.

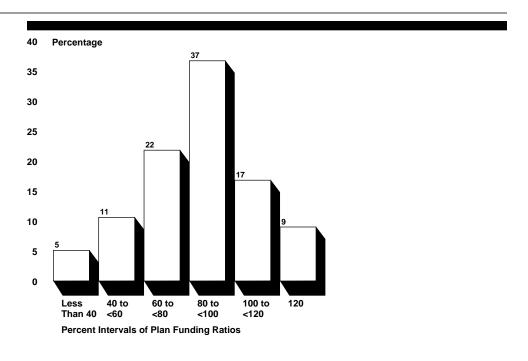
Source: GAO Analysis of 1993 PPCC Survey.

Funding ratios vary widely, however. Of the plans that were underfunded in 1992, 38 percent were less than 80-percent funded (see fig. 1). For underfunded plans alone in the PPCC sample, total assets equaled 77 percent of liabilities.

⁸Data are from the 1993 Survey of State and Local Government Employee Retirement Systems, PENDAT survey for 1993, prepared by PPCC. Plans with complete funding data for 1992 represented 95 percent of all employees and 94 percent of all assets for the plans responding to the PPCC survey. (See app. I for more detail.)

⁹We used the actuarial accrued liability to measure plans' pension liability. It is noteworthy that funding ratios provide only general indications of funding status because public pension plans can use different actuarial methods and assumptions, such as the assumed rate of return on plan investments. (See app. I.)

Figure 1: Distribution of State and Local Pension Plans by Funding Ratio, 1992



Source: GAO Analysis of PPCC Survey.

State and Local Government Contributions Have Fallen Short of Actuarially Required Amounts In 1992, state and local government contributions to their pension funds fell short of the actuarially required amounts; the contribution ratio was 88 percent for all plans in the sample with complete contribution data. ¹⁰ The contribution ratio is the proportion of the actuarially required contribution covered by actual contributions. (See table 2.)

 $^{^{10}} Plans$ with complete contribution data for 1992 represented 84 percent of all employees and 85 percent of all assets for the plans responding to the PPCC survey.

Table 2: Contribution Status of State and Local Pension Plans, 1992

| | State | | Loc | Local ^a | | Total | | |
|--------------------------------------|-------------------------|-----------------------------------|-----------------|------------------------------------|-----------------|-----------------------------------|--|--|
| _ | C Number of plans | ontribution ratio (percent) | Number of plans | Contribution ratio (percent) | Number of plans | ontribution ratio (percent) | | |
| Received less than full contribution | 50 ns | 69 | 100 | 73 | 150 | 69 | | |
| Received full contribution or more | 46 ns | 105 | 151 | 106 | 197 | 105 | | |
| All plans | 96 | 84 | 251 | 99 | 347 | 88 | | |

^aLocal plans include all plans not sponsored by a state. Local plans cover 26 percent of all employees in state or local plans and 11 percent of employees in plans that received less than full contributions. Thus, the contribution ratio for local plans does not have a large effect on the ratio for all plans combined.

Source: GAO Analysis of 1993 PPCC Survey.

Underfunding of state and local government plans will not likely improve if contributions fall short of actuarially required amounts, which are calculated to cover currently accruing liabilities and also to help pay off any existing unfunded liability. Inadequate contributions over the long term could seriously erode the financial status of some plans, especially those underfunded by large amounts.

Contribution ratios also varied widely in 1992. While 57 percent of plans received full contributions, the remaining 43 percent had a combined contribution ratio of just 69 percent, or nearly \$4 billion less than the actuarially required amount. About 15 percent of plans received less than 60 percent of required amounts. For state plans alone, over half received less than full contributions, with nearly one-fourth below 60 percent of required amounts.

Examining only the plans that were underfunded, 44 percent received less than full contributions and 16 percent received less than 60 percent of the required amount. About 55 percent of underfunded state plans received less than full contributions, compared with 40 percent of underfunded local plans. (See table 3.)

Table 3: Contribution Ratios of Underfunded Plans, 1992

| In percent | | | | | |
|--------------------|------------|---------------------------------|-----------|--|--|
| | Percentage | Percentage of underfunded plans | | | |
| Contribution ratio | State | Locala | All plans | | |
| Less than 40 | 13.0 | 4.0 | 6.6 | | |
| 40 to less than 60 | 10.1 | 9.7 | 9.8 | | |
| 60 to less than 80 | 10.1 | 10.9 | 10.7 | | |
| 80 to less than 99 | 21.7 | 15.4 | 17.2 | | |
| 99 or more | 44.9 | 60.0 | 55.7 | | |
| Total | 100.0 | 100.0 | 100.0 | | |

Note: Numbers in table may not add to the total due to rounding.

Source: GAO Analysis of 1993 PPCC Survey.

Recent Changes in Funding and Contribution Status

According to our analysis of the PPCC survey data, the funding status of state and local pension plans improved between 1990 and 1992. The contribution status of these plans worsened slightly, however, and a significant share of plans underfunded in both years also received less than full contributions in both years. Although the survey had complete data for both years for only a subset of all survey respondents, this analysis illustrates the plans' varied experience and what can happen in the worst cases.

For the plans with complete funding data for both years, the funding ratio increased from 80 to 83 percent. For underfunded plans alone, the funding ratio increased from 72 to 78 percent.¹¹

For plans with complete contribution data for both years, the contribution ratio decreased from 93 to 85 percent. For plans receiving less than full contributions, the contribution ratio decreased from 62 to 60 percent.

Examining the distribution of plans by funding and contribution status better reveals the potential for funding problems since each pension fund

^aLocal plans include all plans not sponsored by a state.

 $^{^{11}}$ Of the 376 plans with complete funding data in 1992, 156 also had complete data in 1990. The funding ratio for the 376 plans was 82 percent in 1992 compared with 83 percent for the 156 plans. Thus, the plans with missing data tended to be similar in funding status.

The 376 plans covered 95 percent of the employees in plans that responded to the survey, while the 156 plans covered 62 percent of them. Contribution data had a similar pattern, though 143 plans had complete contribution data in both years, covering 54 percent of employees. (See app. I for more detail on the data set.)

must meet its own obligations. Of the 156 plans with complete funding data for both years, 97 plans increased their funding ratios, and the number of underfunded plans dropped from 122 to 118. For the 143 plans with complete contribution data for both years, the number of plans receiving less than full contributions increased from 53 to 57.

Still, it may be perfectly appropriate for an overfunded plan to undercontribute; underfunded plans that do so are the primary concern. Of the 117 plans that had complete data for both years, ¹² 90 were underfunded in both years. Sponsors undercontributed to 28 of these in one of the two years but not both and undercontributed to 25 in both years. (See table 4.) Of the 25, 8 plans had funding ratios that decreased between 1990 and 1992. Another three had level funding ratios. Thus, nearly half of the 25 showed no improvement in their funding status.

Table 4: Recent Changes in Funding and Contribution Status of Plans With Complete Data, 1990 Versus 1992

| | Nu | mber of plans | s |
|------------------------------|---------------------------|--------------------------------------|-----------|
| Receiving full contributions | Underfunded both years | Fully funded 1 year or both | All plans |
| Neither year | 25 | 3 | 28 |
| 1990 or 1992 | 28 | 10 | 38 |
| 1990 and 1992 | 37 | 14 | 51 |
| Total | 90 | 27 | 117 |

Source: GAO Analysis of 1991 and 1993 PPCC Surveys.

Even with undercontributing, funding ratios may improve for various reasons, including strong returns on pension fund investments. Also, while most of the underfunded plans without full contributions nevertheless improved their funding status, their sponsors may not have been paying off the unfunded liability exactly on schedule. Conversely, making the full actuarially required contribution, including partial payment of the unfunded liability, may not have been sufficient to improve funding ratios; for example, investments may have returned less than estimated. Of the 37 plans that were underfunded yet fully contributing in both years, 9 nevertheless had decreasing funding ratios. This illustrates the value of full funding in buffering against poor investment returns or other temporary strains on the pension fund.

 $^{^{12}\}mathrm{Of}$ the 504 plans responding in either year, 117 plans had both complete funding and contribution data for both years. These 117 plans covered 42 percent of the employees covered by the 504 plans.

Conclusions

The funding status of state and local government pension funds has improved substantially in the past 15 years. More than half of underfunded plan sponsors are contributing enough to reduce their unfunded liability, while the other plans are not.

Most significantly, one-third of state and local pension plans were both underfunded in 1992 and receiving less than the actuarially required sponsor contributions. Sponsors of underfunded plans who consistently undercontribute will leave their plans with little buffer against possible deterioration in the plans' financial status. Such a deterioration could arise, for example, from an increase in the number of retirees or poor investment performance. As a result, sponsors create the potential for difficult budget choices in the future and may implicitly shift to future taxpayers part of the burden for paying today's government workers.

Agency Comments

The Chair of the PPCC's Survey Committee and the administrator of the PPCC database provided comments on a draft of this report. The PPCC represents associations of finance and retirement officials from state and local government. (See app. I for more detail.) Neither individual disputed the accuracy of the data we presented, but both disagreed with some of our specific conclusions.

The Survey Committee Chair commented that the report's tone is not balanced and would likely lead readers to think that public pension underfunding is a larger problem than it really is. We do not agree that this report is biased in tone or content. We clearly acknowledge that on the whole funding has improved substantially. However, we also attempt to focus attention on those underfunded state and local plans that may face problems if undercontributing persists.

The administrator of the PPCC database suggested that only contribution ratios of less than 90 percent be considered significant undercontributing. He feels that relatively small levels of undercontributing often may reflect differences between actual experience and actuarial projections and that sponsors may compensate with overcontributions in other years. We acknowledge that a small level of undercontributing in one year may not significantly erode funding levels for a given plan, but we do not believe we can arbitrarily specify a numerical value at which undercontributing becomes significant in isolation from other factors.

Ultimately, the critical question is whether undercontributing for a given plan persists from year to year and whether its funding level improves or worsens. Our 2-year analysis attempts to address this question, but, unfortunately, the PPCC Survey does not yet have complete data for enough plans for enough years to draw firm conclusions. Regarding this analysis, PPCC's database administrator also commented that it is not appropriate to generalize from the relatively small number of plans that had complete data for both years. We agree and, in fact, were careful not to generalize from this 2-year analysis; we presented this analysis only to illustrate and focus on the implications of persistent undercontributing.

In general, both commenters stated their view that the funding status of state and local pensions is improving. One noted that GASB reporting rules may provide further impetus to improve state and local plan funding and contributions. Both commenters also had some technical comments, which we have incorporated where appropriate.

As arranged with your office, unless you publicly announce its contents earlier, we plan no further distribution of this report until 30 days from the date of this letter. At that time, copies will be made available to others upon request.

If you have questions concerning this letter, please call me on (202) 512-7215. Other GAO contacts and staff acknowledgments are listed in appendix II.

Jane L. Ross

Director, Income Security Issues

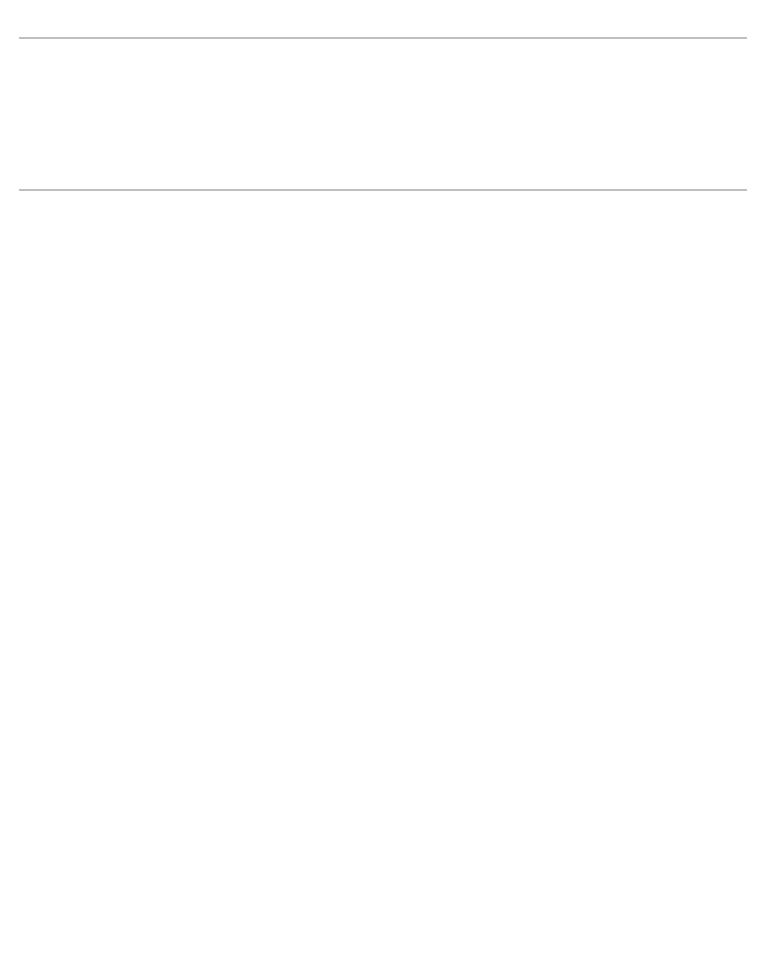
Jane L. Joss

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Abbreviations

| AAL | actuarial accrued liability |
|-------|---|
| ERISA | Employee Retirement Income Security Act of 1974 |
| GASB | Governmental Accounting Standards Board |
| PBGC | Pension Benefit Guaranty Corporation |
| PBO | projected benefit obligation |
| PPCC | Public Pension Coordinating Council |



Scope and Methodology

To analyze the current status of state and local pension plan funding and contributions, we used data from the Public Pension Coordinating Council (PPCC). Members of the PPCC include the

- Government Finance Officers Association,
- National Association of State Retirement Administrators,
- National Conference on Public Employee Retirement Systems, and
- National Council on Teacher Retirement.

The most recently available PPCC data were from their 1993 survey representing the financial status primarily for fiscal year 1992. We compared these data with a similar survey PPCC conducted in 1991, representing the financial status primarily for fiscal year 1990.

Despite some limitations, the PPCC data are the best available, and respondents to the 1993 survey represent 83 percent of the assets of all state and local government plans and 76 percent of active plan members. Following are the data limitations: (1) survey responses represent the financial status for the fiscal year with the most recent actuarial valuation and thus do not all represent the same fiscal year's financial status; (2) the samples are not random and therefore limit any generalization of results to nonrespondents; (3) many responses lack complete funding or contribution information; (4) the 1991 survey had fewer respondents than the 1993 survey; and (5) the data represent the plans' own estimates using varied actuarial cost methods and assumptions.

For the 1991 survey, 73 percent of responses had data from fiscal year 1990, 18 percent from 1989, and the remainder from other years. For the 1993 survey, 68 percent of responses had data from fiscal year 1992, 19 percent from 1991, 8 percent from 1993, and the remainder from other years.

PPCC sent its survey to all members of two of its member associations and to a representative sample of members of the other two associations. PPCC reported that one of its associations was especially helpful in ensuring responses. Due to the nonrandom nature of this sample and the resulting potential for bias, no analysis can offer any generalizations about nonrespondents. Nor can confidence intervals be calculated. Nevertheless, the survey covered a substantial majority of pension plan members and assets. Thus the analysis describes the funding status of a large and important portion of all plans and members.

Appendix I Scope and Methodology

As noted in footnotes throughout the report, many respondents did not provide complete funding data or contribution data or both. We can calculate the number of employees represented by plans with complete data, but we cannot generalize anything about the plans with incomplete answers or assess any resulting bias in the results. Still, as the footnotes detail, the plans with complete data generally represented a substantial share of the employees in responding plans.

| | 1991 s | 1991 survey | | 1993 survey | | One or both surveys | |
|------------------------|-----------------|---------------------------------|-----------------|---------------------------------|-----------------|---------------------------------|--|
| | Number of plans | Number of employees represented | Number of plans | Number of employees represented | Number of plans | Number of employees represented | |
| Responding to survey | 271 | 9,140,285 | 451 | 9,945,551 | 504 | 10,825,468 | |
| With complete data for | | | | | | | |
| Funding | 185 | 7,205,524 | 376 | 9,420,708 | 156 | 6,702,879 | |
| Contributions | 188 | 6,553,254 | 347 | 8,393,893 | 143 | 5,818,174 | |
| Both | 150 | 5.240.075 | 318 | 7.976.721 | 117 | 4.597.509 | |

The limitations of incomplete data were greatest for comparisons between 1990 and 1992. Therefore, we present this analysis primarily for illustration.

We did not adjust the PPCC data to standardize actuarial cost methods and assumptions. State and local governments may have many legitimate reasons for choosing various cost methods and assumptions, and we did not evaluate their choices. For example, among various investment restrictions, some plans are not allowed to invest in stocks while others are; therefore, plans' assumed rate of return on investments should differ.

Change in Actuarial Measures Used

In our previous analysis of this database, ¹³ we used a measure called projected benefit obligation (PBO) for the pension plans' liabilities. At the time, the Governmental Accounting Standards Board (GASB) required that state and local plans report this measure. In 1994, GASB changed its policy to require a measure called actuarial accrued liability (AAL), primarily responding to many requests from plans that did not use the PBO measure. Also, many officials felt that the PBO underestimates plan liabilities.

¹³Underfunded State and Local Pension Plans (GAO/HRD-93-9R, Dec. 3, 1992).

Appendix I Scope and Methodology

In accordance with GASB's change in policy, our current analysis also used the AAL measure; the PPCC database includes both PBO and AAL data, when reported. Our analysis confirmed that PBO generally yields higher funding ratios and therefore suggests a lower degree of underfunding. Since our previous analysis used the PBO measure and our current analysis used the AAL measure, funding ratios and related statistics should not be compared between the two reports. The trend analysis in this report, however, does make a valid comparison over time, using AAL for both the 1990 and 1992 data.

GAO Contacts and Staff Acknowledgments

| Contacts | Donald C. Snyder, Assistant Director, (202) 512-7204 |
|-----------------|--|
| Acknowledgments | The following individuals made major contributions to this report: Dea M. Crittenden, Evaluator-in-Charge; Kenneth C. Stockbridge, Evaluator; Lawrence Charron, Evaluator; and Sharon Fucinari, Computer Specialist. |

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