Who Pays for Pensions in the State and Local Sector: Workers or Employers?*

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Introduction

In 1974 Congress passed the Employee Retirement Income Security Act (ERISA). This complex piece of legislation, which applies only to private-sector pension plans, contains several provisions which tend to increase employers' costs of providing pensions. These include liberalized vesting rules, stringent funding requirements, and increased fiduciary responsibility and accountability. The analysis in this paper will focus on the likely effect of these provisions if they are applied to state and local government employee retirement systems. Although a public-sector variant of ERISA has yet to be passed, public employee retirement systems have recently become subject to scrutiny by various governmental bodies. Partly because of fiscal crises at the state and local level, and partly because of ERISA's passage, investigations have been launched to ascertain the need for pension reform legislation in the public sector. Whether prepared at the federal, state, or local level, the resulting reports invariably call for important reform of public-sector pensions, notably in the area of funding.[1]

As with any piece of social legislation, a public-sector variant of ERISA is likely to have costs as well as benefits, and it is reasonable to inquire what the magnitudes of these costs are likely to be.[2] Turning first to ERISA's vesting provisions, vesting provisions are currently much

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[1] See, for example, U.S. House of Representatives, Committee on Education and Labor, *Pension Task Force Report on Public Employee Retirement Systems* (Washington: 1978).

[2] See Ronald G. Ehrenberg and Robert S. Smith, "A Framework for Evaluating State and Local Government Pension Reform," in *Public Sector Labor Markets*, eds. Peter Mieszkowski and George Peterson (Washington: 1979) for a more extensive discussion of the costs of ERISA-type legislation in the private and public sectors.

more liberal in the public sector than they were in the pre-ERISA private sector; for example, only 2.4 percent of state and local government employees are in plans with no vesting. Indeed, the House Pension Task Force concluded that applying ERISA-type vesting provisions to the state and local sector would require vesting changes for only 20 percent of employees in the sector and would not prove extremely costly.[3] Our own estimates, based upon regression analyses of the effect of pension plan characteristics on normal costs (for retirement systems in Pennsylvania, the only state to publish actuarial information for its public pension plans), support this view.[4] We calculate that adoption of ERISA-type vesting requirements in the state and local sector would increase per-worker pension costs by roughly 2.5 percent; these costs would *not* be distributed uniformly across systems, but would be concentrated in those systems which initially had less generous vesting provisions.

In contrast, applying ERISA funding requirements to the state and local sector would be enormously costly because of the very poor funding practices which currently exist. The Pension Task Force estimates that 75 percent of public employers are not currently funding at the levels required by ERISA, that assets are equal to 38 percent of accrued liabilities in the typical fund, and that the average funding deficiency is about $16,000 per worker.[5] While the Pension Task Force did not estimate the increases in yearly pension costs ERISA funding provisions would require, actuarially-based data from Pennsylvania's municipal employees' retirement systems suggest that they would be substantial. Unfunded liabilities for nonuniformed employees in the typical Pennsylvania city are around $15,000 per worker—very close to the estimated national average. If cities had to make pension contributions which cover normal costs and amortize unfunded liabilities over 30 years, the average city contribution per year would have to rise by $585 per worker. This sum would increase their current contribution of $657 per worker by 89 percent!

Who Pays for Pensions in the State and Local Sectors?[6]

Given the likely magnitude of the *costs* of pension reform in the state and local sector, the next issue is how these costs will be distributed across taxpayers and various groups of public employees. This

[3] U.S. House of Representatives, pp. 88–89.

[4] See Ehrenberg and Smith, especially Appendix A, for details.

[5] U.S. House of Representatives, pp. 51, 157, 165.

[6] Due to space constraints, our discussion is necessarily brief here. See Ehrenberg and Smith for details.

requires one to first have information on how much of the added pension costs will be paid for by employees in the form of lower wages. Once the impact of pension reform costs on wages are known, increases in unit labor costs can be calculated. These calculations can then be combined with public-sector labor demand elasticities to yield estimates of employment changes and revenue needs. Because estimates of public-sector labor demand elasticities already exist, our research has focused on the extent to which pension costs are reflected in public-sector salaries.[7]

Most pension plans in the public sector are defined benefit pension plans, are quite complex, and contain numerous provisions (e.g., age and service requirements for regular retirement, vesting rules, benefit levels, employee contribution rates).[8] Fortunately, in most cases it is straightforward to calculate how changing a provision will alter the net contribution a government employer must make to an employee's pension fund account each period to keep it fully funded.[9] For example, increasing *employees'* required contribution rates will decrease the employer's net pension costs, while increasing the level of retirement benefits will increase the employer's net pension costs.

To the extent that one can control for other factors that would cause public-sector wage scales to vary across cities, higher employer net pension costs should *in theory* be associated with lower public employee wage scales. Estimation of an equation in which public employee wage scales are regressed on retirement system characteristics *and* variables that previous studies have shown influence public employee wages permits one to ascertain whether public employers actually do shift the cost of pensions on to their employees.[10]

The discussion above is couched in terms of a fully funded public-sector retirement system. The effects of underfunding on public-sector wages depend on employers' and employees' perceptions about the outcome of underfunding. The possible cases are discussed below.

Employers may regard underfunding as merely borrowing from the future—that is, creating a future liability with a present value equal

[7] See Ronald G. Ehrenberg, "The Demand for State and Local Government Employees," *American Economic Review* 63 (June 1973), pp. 363–78, for estimates of public-sector wage elasticities of demand.

[8] See U.S. House of Representatives for a more complete enumeration of these provisions and the frequency with which they occur.

[9] Burt S. Barnow and Ronald G. Ehrenberg, "The Costs of Defined Benefit Pension Plans and Firm Adjustments," *Quarterly Journal of Economics* 93 (November 1979), present examples of such calculations.

[10] See Ronald G. Ehrenberg and Gerald S. Goldstein, "A Model of Public Sector Wage Determination," *Journal of Urban Economics* 2 (February 1975), for an analysis of the other factors that affect public-sector wages.

to the amount of underfunding. With this perception they would not be willing to offer higher wages in the event of underfunding. We would thus observe no wage-underfunding trade-off.

Public-sector employers, however, may regard underfunding as cost-saving, at least to the currently elected administration. They may, for example, believe that higher levels of government will "bail-out" funds whose pensioners face nonreceipt of benefits. They may also reason that the financial crisis is 15 to 20 years in the future and therefore well past the time when they will be in office. In either case, employers regarding underfunding as cost-saving will be willing to pay higher wages if they choose to underfund. The ultimate wage-underfunding trade-off, however, depends on employee perceptions.

If employees are unaware of underfunding or believe it will have no effect on their expected pension benefits, they will essentially ignore underfunding in their choice of employers and go for the highest paying job (ceteris paribus). The highest wages, other things equal, will be paid by the biggest underfunders. Large-scale underfunders would dominate in their ability to attract employees and a Gresham's Law of pensions would exist: poorly funded retirement systems would drive out well funded ones. We would observe near-total underfunding by all public employers.

If employees are aware of underfunding and perceive it to reduce their expected benefits, they would demand higher wages to compensate for additional underfunding. Employees who require a large wage increase for a given increment of underfunding would choose to work for the better-funded employers, while those who require only a small wage increase would work for the poorest funders. We would observe both a positive wage-underfunding trade-off in the labor market and the coexistence of retirement systems in which funding practices vary widely. In fact, this is the only case where a wage-underfunding trade-off would be observed; in the other cases employers are either unwilling to make the trade-off or are clustered at some near-maximum level of underfunding.

Attempts to ascertain empirically the extent to which our theoretical predictions are borne out about the effects of public-sector retirement system characteristics and funding practices on state and local government employees' wages are limited by numerous troubling data problems.[11] Nevertheless, within the limits of available data, we have conducted three tests of whether a trade-off exists between wages and retirement system characteristics in the public sector. Details of these

[11] See Ehrenberg and Smith for a detailed discussion of these problems.

analyses are presented elsewhere, we merely summarize some of the more important findings here.[12]

Ehrenberg used data on police and firefighters in roughly 130 cities of populations of 50,000 or more, drawn from the 1973 International City Management Association survey of "Personnel Practices in Municipal Police and Fire Departments" and other sources, to test for the effects of several pension plan characteristics—minimum age and service requirements for regular retirement, percentage of salary received for regular retirement, and employees' pension contributions as a fraction of their salary—on public-sector wages. His strongest finding was that, holding promised pension benefits and other variables expected to affect wages constant, police and firefighters appear to be fully compensated in the form of higher wages, on virtually a dollar-for-dollar basis for increases in their own pension contributions. He also performed a limited analysis of the effect of underfunding on wages, finding that a set of proxy variables for the extent of underfunding was correlated with wages. Those results are suggestive of the existence of a positive association between the extent of underfunding and wages, although no quantitative estimates of the relationship were obtained.[13]

In the same paper, Ehrenberg also analyzed data from the U.S. Conference of Mayors' "Third National Survey of Employee Benefits for Full-Time Personnel of U.S. Municipalities" on 262 cities with populations of 25,000 or over to test for wage-retirement system characteristics trade-offs among fire, police, and sanitation workers. Perhaps his most important finding was that, ceteris paribus, the presence of vesting led to a 3-9 percent decrease in wages.

Finally, Smith tested the predictions of the theory on data for nonuniformed employees enrolled in Pennsylvania's city and county retirement systems. These data are the only *available* public-sector retirement system data that include actuarial calculations (in particular, calculations of the "normal cost of pension promises" and the extent of underfunding). Smith found that, ceteris paribus, increases in normal service costs reduce wages virtually dollar-for-dollar and increases

[12] Ronald G. Ehrenberg, "Retirement System Characteristics and Compensating Wage Differentials in the Public Sector," *Industrial and Labor Relations Review* (forthcoming) and Robert S. Smith, "Pensions, Underfunding, and Wages in the Public Sector" (mimeo, March 1979).

[13] The ICMA data set was the only one of the three we analyzed which contained information on collective bargaining status. Since the effect of public-sector unions on the wage–retirement system trade-off is of interest in its own right, we should note that these data indicated that, holding retirement system characteristics *and* other determinants of wages constant, police wages were some 3 to 5 percent higher and firefighter wages some 4 to 10 percent higher in cities in which wages were determined by formal union negotiations.

in the extent of underfunding increase wages, again virtually dollar-for-dollar.

Who Will Pay for Pension Reform in the Public Sector?

Our findings, summarized above, suggest we cannot rule out the possibility that the costs of pension reform legislation in the public sector will be borne completely by public employees in the form of downward pressures on their salaries. This raises the issue of who pension reform will benefit. For example, some workers may prefer higher current wages to vesting reforms, either because they plan to stay in the job until retirement or because they will quit any job before becoming vested. To require that all plans vest in 10 years, for example, would eliminate the option of working for higher-wage employers with illiberal or nonexistent vesting. Such losses, however, would be small in the aggregate because of the nearly complete level of vesting which exists currently in the public sector.

The implications of our findings for funding reform policies are probably more worthy of careful discussion because of the large costs involved. Our evidence is consistent with the hypotheses that employees are reasonably well informed of underfunding and they are fully compensated for it at the margin. One can surmise that, at the margin, they are willing to take a gamble on receiving a pension if the current wage is high enough. Mandated full funding would remove this option from their choice set and would reduce their utility.

The gamble appears attractive to employees because the chances are good that political pressure to bail-out bankrupt funds will be effective. The thought of retirees being unable to receive pension checks due to the irresponsible funding policies of some *previous* administration is politically intolerable, no matter how strong the evidence is that these retirees were previously compensated for the risk of this eventuality. Herein lies one possible justification for this reform. Rather than protecting *workers*, the reform may be most useful in protecting the *public* from having to pay for underfunding twice: once in the form of higher wages and once at the time of bail-out.

Assuming that policy-makers judge funding reform to be desirable, at least three possible policy options appear to exist. First, one might require all state and local government retirement systems to amortize their existing unfunded liabilities over a specified period of time (say 30 years) and to fully fund new liabilities. Since current and future employees will pay the cost of full funding, in the form of lower wages, requiring that all current unfunded liabilities be amortized would place

a heavy burden on younger and prospective employees. These employees would in effect be required to pay for the pensions of older employees—the very ones, if our evidence is correct, who have received wage premiums to compensate them for underfunding over the years.

Second, one might argue on equity grounds that the full funding requirements should apply only for liabilities incurred *after* the date of any new legislation. This would necessitate the creation of new funds which all current employees could be required to join. Existing underfunded pension funds might be closed down and current and future retirees paid their pro rata share of the assets. Such a scheme would have the benefit of not placing the burden of funding current unfunded liabilities on future generations of public employees; however, it would substantially reduce the well-being of current employees and retirees who belong to retirement systems with unfunded liabilities (it also is *illegal* in most states). While one might be tempted to argue that our results suggest that these individuals already have been compensated for the possibility of such an action occurring, replication of our results by other investigators is required before this option can be seriously considered.

Finally, one might require that public employee retirement systems fully fund future pension liabilities, but that existing unfunded liabilities be financed out of more general revenue sources, either at the state or federal level. Such a policy would shift the burden of current unfunded liabilities to taxpayers in general and, to the extent that unfunded liabilities vary across states and federal funding is opted for, would have distributional implications across geographic areas.