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DO PUBLIC WORKERS WITHOUT SOCIAL SECURITY GET COMPARABLE BENEFITS?

*By Laura D. Quinby, Jean-Pierre Aubry, and Alicia H. Munnell**

Introduction

One-quarter of state and local government employees – approximately 6.5 million workers – are not covered by Social Security on their current job. To remain outside of Social Security, federal law requires that these employees be covered by an employer pension of sufficient generosity. Since many public pensions have grown less generous in recent years and a few plans could exhaust their assets, the question is whether state and local plans currently satisfy the federal standards.

This *brief,* which is based on a recent study, attempts to answer that question.[1] The first step is to determine whether the retirement plans for noncovered state and local employees satisfy the "letter of the law." Specifically, do they meet the IRS "Safe Harbor" parameters, and do these parameters provide income equivalent to Social Security at age 67? Even if the plans meet these requirements, however, noncovered state and local employees still may not receive Social Security-equivalent resources because they face long vesting periods and may not get full cost-of-living adjustments (COLAs) – albeit, they can claim full benefits earlier than under Social Security. Thus, the second step requires incorporating vesting, the COLA, and retirement ages to produce lifetime retirement wealth. The final step involves addressing the additional complication caused by low funded ratios in a number of pensions for noncovered state and local employees.

The discussion proceeds as follows. The first section presents a brief history of the federal regulations that affect noncovered workers. The second section compares the plans currently offered to noncovered workers to the Safe Harbor requirements. The third section examines whether the requirements provide Social Security-equivalent benefits at age 67. The

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conclusions are that virtually all plans satisfy the Safe Harbor provisions and that participation in a Safe Harbor plan produces about the same level of benefits at age 67 as Social Security. The fourth section shifts from benefits at 67 to a lifetime-wealth measure that reflects differences in vesting requirements, COLAs, and normal retirement ages. This wealth-based generosity test suggests that 43 percent of noncovered public pension plans fall short of Social Security for a significant minority of new hires. The fifth section addresses the implications for valuing benefits of underfunded pensions and potential exhaustion of assets in a few plans. The final section concludes that the issues regarding generosity could be eliminated by extending mandatory Social Security coverage to state and local workers, but the question of how to value underfunded benefits remains a challenge.

A Little History

The Social Security Act of 1935 excluded state and local employees from coverage because of constitutional ambiguity over the federal government's authority to impose payroll taxes on public employers and because these employees were already covered by defined benefit pensions. Beginning in the 1950s, a series of amendments allowed government employers to enroll certain employees in Social Security, so that by 1991 most state and local employees were covered by the program. Today, public employees are permitted to remain outside of Social Security if their employer plan meets the IRS Employment Tax Regulations for sufficiently generous benefits.

To meet the generosity standard, a plan must provide members with a benefit for life of equal value to the Primary Insurance Amount that members would have received had they participated in Social Security. The benefit must start on or before Social Security's full retirement age (FRA), which was traditionally 65 but is now 67 for nearly all workers.

To help public plans determine whether they are in compliance, the government has established Safe Harbor provisions. In general, benefits in defined benefit plans are equal to a benefit factor multiplied by average final earnings and years of service. The Safe Harbor provisions assume the traditional retirement age of 65 and set a benefit factor that varies with the number of years included in the final earnings calculations.[2] For example, if the plan bases benefits on the three years of highest earnings, it must have a benefit factor of 1.50 percent; if the averaging period is 5 years, the benefit factor must be 1.60 percent (see Table 1).

Table 1. Safe Harbor Minimum Benefit Factors for Defined Benefit Pension Plans

Basis for final average earnings	Benefit factor
Highest –	
3 years	1.50%
4 years	1.55
5 years	1.60
6-10 years	1.75
More than 10 years	2.00

Source: IRS Revenue Procedure 91-40.

Do Current Benefits Satisfy Safe Harbor Provisions?

To assess whether retirement benefits for noncovered new hires meet the Safe Harbor requirements, we gathered data on Social Security coverage from surveys of plan administrators and detailed benefit data from state and local plans' actuarial valuation reports.[3] Table 2 shows the relevant states and the percentage of workers in these states who are not covered.

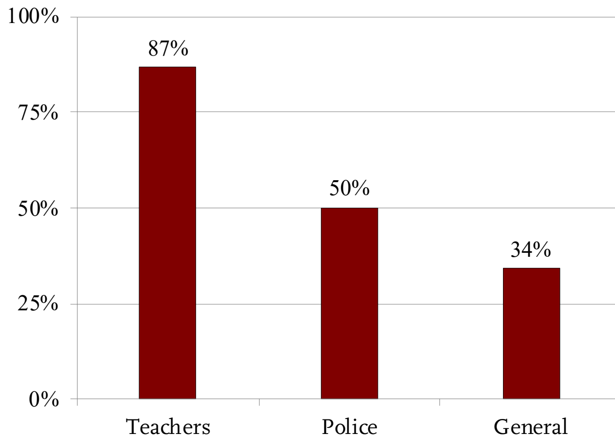
Table 2. Percentage of State and Local Workers Noncovered in Sample States, 2018

State	Percentage of workers noncovered
California	42%
Colorado	76
Connecticut	64
Georgia	22
Illinois	42
Kentucky	29
Louisiana	87
Massachusetts	100
Missouri	20
Nevada	100
Ohio	100
Texas	35

Sources: Authors' and NASRA surveys of plan administrators; U.S. Census Bureau, *Annual Survey of Public Employment and Payroll* (ASPEP); and other public sources.

Coverage in the states that we surveyed varies significantly by type of employment. While most teachers in these states lack Social Security coverage, only a third of general employees are not covered (see Figure 1).

Figure 1. Percentage of State and Local Workers Noncovered in Sample, by Occupation, 2018



Sources: Authors' and NASRA surveys of plan administrators; ASPEP; and other public sources.

Our survey produced information on both normal retirement ages (NRAs) and benefit structures for new hires in plans with noncovered workers. Although a couple of plans set their NRA older than the Safe Harbor benchmark of 65, no plan exceeds the current Social Security FRA and many allow for normal retirement at substantially younger ages, with a median age of 62. Similarly, the benefit structure is typically more generous than required by law (see Table 3). For example, among plans with a three-year final average salary period, the median benefit factor is 3.0 percent, whereas the Safe Harbor formula only requires 1.5 percent.[4] In short, the benefits earned by noncovered state and local new hires appear to satisfy the Safe Harbor requirements.

Do the Safe Harbor Designs Work?

The second question is whether the Safe Harbor parameters themselves satisfy the guidance that retirement benefits at age 67 should be equivalent to the Social Security Primary Insurance Amount. To answer the question, we compare two scenarios: 1) Safe Harbor plus Social Security benefits for a worker who spends some of their career in noncovered employment and the rest in covered employment, vs. 2) the Social Security benefit that this same worker would have received had they spent a whole career in covered employment.

In the calculations, the Safe Harbor-compliant plan offers a 1.5-percent benefit factor, a 3-year final average salary, an NRA of 65, and no COLA. Because Safe Harbor regulations do not stipulate a vesting requirement, we assume immediate vesting.[5]

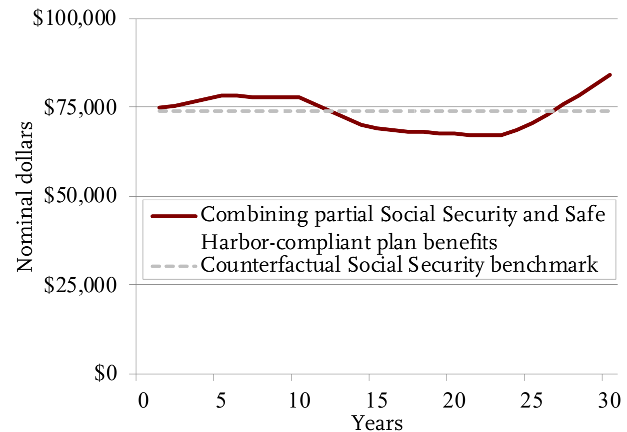
Figure 2 compares total benefits at age 67 from the two scenarios. The results show that the years worked in noncovered employment have little effect on age-67 benefits. That is, the scenario that com-

Table 3. Characteristics of Benefit Formulas for Noncovered State and Local New Hires in 2016

Basis for final average earnings	# of benefit formulas	Benefit factor: Sample median	Benefit factor: Safe Harbor requirement
Highest –			
1 year	1	3.00%	1.50%
2 years	1	2.00	1.50
3 years	22	3.00	1.50
5 years	33	3.00	1.60
6-10 years	8	2.00	1.75

Sources: Authors' and NASRA surveys of plan administrators and plan actuarial valuation reports.

Figure 2. Estimated Retirement Benefit Under Two Scenarios for a Hypothetical New Worker age 25 in 2018, by Years in Noncovered Employment



Source: Authors' calculations.

bines a Safe Harbor-compliant pension with some Social Security (the solid red line) produces roughly the same total retirement benefits as the scenario with continuous Social Security coverage (the dashed gray line), regardless of the worker's assumed tenure in government.

Do Noncovered Workers Get the Same Lifetime Benefits?

Although the plans for noncovered public employees satisfy the Safe Harbor requirements and the Safe Harbor achieves the goal of the Employment Tax Regulations, it is still not clear that the noncovered employees enjoy Social Security-equivalent resources *throughout* retirement.

Public pensions and Social Security differ in important ways that affect lifetime retirement resources. On the negative side, state and local plans often set very long vesting periods and are increasingly unlikely to grant full COLAs after retirement.[6] On the positive side, they allow members to collect full benefits at much younger ages than Social Security.

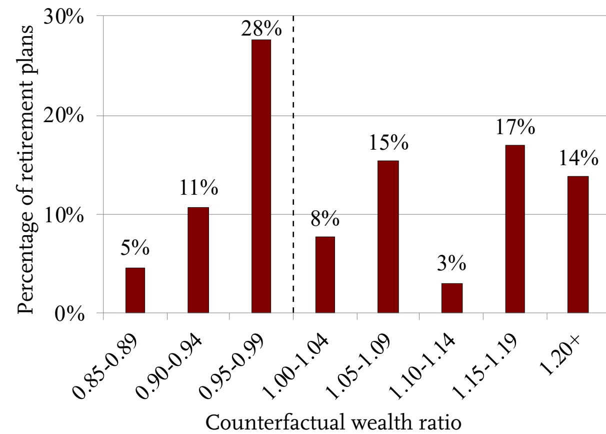
Incorporating these factors into the generosity test requires a conceptual transition from age-67 benefits to lifetime retirement wealth. Specifically, the new standard uses the following ratio:

$$\frac{\textit{Noncovered Pension Wealth} + \textit{Covered Social Security Wealth}}{\textit{Counterfactual Social Security Wealth}}$$

Noncovered pension wealth is the present value of future state and local pension benefits from noncovered employment; covered Social Security wealth is the present value of Social Security benefits earned from covered employment (in either the public or private sector); and counterfactual Social Security wealth equals the present value of the Social Security benefits that the worker *would have received* had they spent a full career in covered employment. If this "counterfactual wealth ratio" is less than one, the worker is worse off than if they had never entered noncovered employment.[7]

The results are presented in Figure 3, which shows that 43 percent of the evaluated plans without Social Security coverage have a counterfactual wealth ratio less than one, indicating insufficient generosity.

Figure 3. Percentage Distribution of State and Local Plans, by Counterfactual Wealth Ratio, 2018



Note: Numbers do not add to 100 percent due to rounding.
Source: Authors' calculations based on plan actuarial valuation reports.

Note that these calculations ignore the spousal and survivor benefits provided by Social Security, which would further reduce the counterfactual wealth ratio.

That said, we found that the percentage of plans falling short is very sensitive to the employment patterns of the noncovered employees. New hires who spend only 5 years in government employment (about 45 percent of new hires remain no longer than 5 years) always accrue benefits at least as valuable as a career covered by Social Security, because they still have 35 years to earn full Social Security benefits. Police officers and firefighters enjoy high counterfactual wealth ratios because they tend to retire early and receive benefits for many years. The counterfactual wealth ratio is also somewhat sensitive to the assumed age of entry into non-covered public employment. Interestingly, the distribution of counterfactual wealth ratios does not appear to be sensitive to realistic variation in earnings levels.

The bottom line nevertheless is that a significant portion of noncovered state and local plans fall short of Social Security for some of their members, with the extent of the shortfall depending on workers' characteristics and specific benefit plan designs. Moreover, underfunding and the possibility of a few plans exhausting their trust fund assets reinforce the findings regarding benefit generosity.

Will Current State and Local Benefits Be Paid in the Future?

The 2008 financial crisis reduced the reported funded ratio of state and local plans, and a handful of governments have persistently failed to make their actuarially required contributions. As a result, the possibility exists that a few plans may exhaust their assets. Since legal experts generally agree that, once trust funds are depleted, benefit payments become dependent on the goodwill of the government, the likelihood of trust fund exhaustion is an important metric of benefit generosity.

We assess the likelihood of exhaustion in the near term by projecting cash flows to estimate the date on which each plan in the sample could run out of assets.[8] To acknowledge uncertainty around the future performance of equities, assets are projected under two assumptions: 1) the plan's assumed return (7.6 percent at the time of the analysis); and 2) a return of 5.3 percent.[9]

Regardless of the return, two Chicago plans for noncovered workers – the Municipal Employees' Annuity and Benefit Fund and the Policemen's Annuity and Benefit Fund – are projected to exhaust their trust fund assets by 2026. Another six plans are projected to exhaust by 2035 under both return assumptions.[10]

Of course, this simple projection is a highly imperfect indicator of a plan's future financial health. The returns to risky investments do not follow a deterministic path, leading many studies to simulate pension finances stochastically. Additionally, expenditures are unlikely to grow at historical rates once the baby boom generation completes its transition to retirement. Most importantly, plan sponsors could shore up troubled pension systems by infusing their trust funds with new revenue, and a few have begun to do so.[11]

Nevertheless, the exercise highlights the question of how to value unfunded state and local benefit promises. Interestingly, a similar problem arises with respect to Social Security, which also faces a financial shortfall over the next 75-year projection period. Hence, not only are state and local pension promises vulnerable to cuts, but benchmark Social Security benefits also entail risk.

Conclusion

Federal law allows certain state and local governments to exclude employees from Social Security coverage if they are provided with a sufficiently generous pension. Given the erosion of benefits provided by many public pensions in recent years, the question is whether current state and local plans satisfy federal standards and whether the standards ensure pension benefits that are equivalent to Social Security.

We find that state and local plans do adhere to the standards and provide equivalent benefits at the full retirement age. However, the standards ignore differences between public pensions and Social Security in key provisions that drive lifetime resource levels. Accounting for those differences, a wealth-based generosity test suggests that 43 percent of public pension plans fall short of Social Security for a significant minority of noncovered new hires. Equally important, a few plans could exhaust their trust funds within about 10 years, putting beneficiaries at risk.

How could policymakers ensure Social Security-equivalent protections for all state and local employees? A practical first step might be to update the Safe Harbor defined benefit requirements to specify reasonable vesting periods and provide full COLAs. Alternatively, legislators could obviate the need for federal generosity standards by enrolling all state and local employees in Social Security – a common feature in many packages of proposed changes to improve Social Security's finances.

Mandatory Social Security coverage of all future earnings, however, will not protect noncovered state and local retirees whose pensions are poorly funded. Of course, Social Security also faces financial challenges. It is not obvious how public pension benefits should be valued relative to an underfunded Social Security program. This question is left as a challenge for future research.

Endnotes

1 Quinby, Aubry, and Munnell (2020).

2 The regulations also outline a Safe Harbor design for defined contribution plans, requiring total contributions to equal at least 7.5 percent of salary annually. While the full study addresses the issues with respect to defined contribution plans, this *brief* limits the discussion to defined benefit plans.

3 The surveys focused on large state-administered retirement systems identified by the U.S. Government Accountability Office (2010) as representing the bulk of noncovered state and local payrolls.

4 On the defined contribution side, the median total contribution rate (employer plus employee) is 18 percent of salary and the sample minimum is 10 percent, well above the Safe Harbor contribution requirement of 7.5 percent.

5 For details on the methodology for this analysis, see Quinby, Munnell, and Aubry (2020).

6 Vesting periods in noncovered state and local pensions are long relative to private sector defined contribution plans (the most common plan type in the private sector).

7 For details on the methodology for this analysis, see Quinby, Munnell, and Aubry (2020).

8 The exercise is conceptually similar to Rauh (2010) and Munnell et al. (2011).

9 The 5.3 percent is a conservative assumption designed to match the assumed nominal return on Social Security trust fund assets from the 2018 Social Security Trustees Report.

10 These six plans are: the Public School Teachers' Pension and Retirement Fund of Chicago; the Illinois State Employees' Retirement System; the Illinois State Universities Retirement System; the Kentucky Teachers' Retirement System; the Louisiana State Employees' Retirement System; and the Ohio Teachers' Retirement System.

11 For example, Chicago revised its funding policy in 2016 and 2017 to bring the police and municipal funds to 90 percent funded by 2058.

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