



## **PUBLIC-SECTOR PENSION REFORM IN PENNSYLVANIA AND THE ROLE OF TRANSITION COSTS**

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Chairman Eichelberger, Minority Chair Blake, and distinguished members of the Senate Finance Committee: thank you for inviting me to testify on the subject of transition costs in pension reform in the Commonwealth of Pennsylvania.

As part of my research for the State and Local Policy Project at the Mercatus Center at George Mason University, I have studied the accounting, economic, and fiscal principles at work in public-sector defined benefit plans. I have analyzed the state pension plans of New Jersey, Rhode Island, Delaware, and Alabama. I have also studied and commented on the pension systems of New Hampshire and Montana. On May 1, 2012, I provided testimony to the Pennsylvania House State Government Committee on the funded status and financial health of Pennsylvania's pension plans.<sup>1</sup>

As state and local governments assess the long-term sustainability of defined benefit plans, a growing number are choosing to close existing defined benefit plans and move either new hires or a portion of all employees to new systems. These systems may be defined contribution plans, as in Oklahoma, Michigan, and Alaska; cash balance plans, a type of defined benefit plan, as in Kansas and Kentucky; or hybrid plans that combine features of defined contribution and defined benefit plans, as in Rhode Island and Utah.

These reforms aim to stop the growth of unfunded pension liabilities and establish retirement systems with stronger foundations and sounder funding for retirees. In each of these states, policymakers have projected the growing costs of keeping defined benefit plans open to new employees and found that switching to a new system is the best course for employees, taxpayers, and governments.

1. Eileen Norcross, "Pension Reform in Pennsylvania," testimony provided to the Pennsylvania House State Government Committee, May 1, 2012, <http://mercatus.org/publication/pension-reform-pennsylvania>.

In some cases, proposed pension reforms have stalled over concerns by policymakers that closing defined benefit plans and moving employees to a new system will generate transition costs. These costs, it is argued, add short-term expenses to already increasing fiscal burdens resulting from underfunded employee pension plans. Transition costs diminish as the closed plan pays out benefits to the remaining retirees.

Closing a defined benefit plan does not add liabilities to the plan. Rather, it changes how the plan's liabilities are accounted for and changes the investment strategy for the plan's assets. It reveals the economic value of the plan and makes the funding of the plan's benefits more sound. Closing a defined benefit plan doesn't add new costs; it makes the costs transparent, and it makes it easier to ensure that the benefits for retirees are fully funded.

I will now explain what transition costs are and why they should not stand in the way of switching employees from defined benefit to defined contribution or hybrid plans. I will also address how pension plans, particularly closed ones, should invest their assets.

## WHAT ARE TRANSITION COSTS?

Two types of transition costs are cited as budgetary barriers to switching public employees from a defined benefit plan to a defined contribution plan: accounting costs and investment costs.

Both of these short-term costs, it is argued, rise in a closed defined benefit plan. While they dwindle as the number of retirees in the closed plan approaches zero, governments are hesitant to add costs to already strained budgets. Let me explain some misconceptions about these costs and why these are not a barrier to pension reform.

Claims of accounting-based transition costs stem from a misreading of Government Accounting Standards Board (GASB) accounting guidance regarding amortization schedules for closed defined benefit plans. Amortization refers to smoothing out debt payments—in the case of pensions—for past years of service. Plans are free to amortize, or structure the payments, of the closed plan's liability using one of several approaches and can even stick with the existing amortization schedule. Alaska elected to use the existing amortization schedule for its closed plan.

Investment-based transition costs concern how the closed defined benefit plan should value and invest the plan's assets. These costs arise from past accounting assumptions that have led plans to be underfunded by relying on unrealistically high-expected returns from riskier assets. Closed plans are required to switch to less risky and more liquid portfolios. This switch improves the closed plan's funding and reduces the risks associated with underfunding retiree benefits. When a plan's assumed rate of return decreases, the present value of the liability increases, though the liability itself is gradually decreasing in the closed plan. Thus, investment-based transition costs serve a positive and necessary goal—fully paying out retiree benefits.

In general, transition costs refer to the employer's contribution to the pension that funds employee benefits. This contribution has two parts. One is the normal cost, the annual cost for benefits earned by active employees in the current year. The other is the amortization of the unfunded accrued liability (UAL), which covers unfunded benefits from past years. This latter portion is the focus of the accounting-based transition-cost critique.

## ACCOUNTING-BASED TRANSITION COSTS

The UAL payments—much like a home mortgage or a car loan—can be structured in different ways. They can be uniform payments each year, or they can be back-loaded, rising over time.

When a public-sector defined benefit plan closes to new employees, according to GASB statements 25/27, plans should switch from calculating payments to retirees based on a level percentage of projected payroll to a level dollar method. The projected payroll method calculates amortization payments based on a constant percentage of projected payroll. The level-dollar method requires equal dollar amounts to be paid each year. It is argued the level-dollar method raises the plan's short-term cost by accelerating the amortization schedule. Under either

method of calculating amortization payments, the total amount paid over time does not change. It is a matter of structuring the payments.

In a 2012 paper titled “GASB Won’t Let Me’: A False Objection to Public Pension Reform,” economist Robert Costrell examines this claim.<sup>2</sup> First, he notes that GASB accounting guidance on how to amortize unfunded liabilities in a closed plan is only guidance—not a legal requirement. GASB has no authority to compel funding or amortization decisions for state or local governments. GASB’s rules are for reporting purposes only. Governments are free to set their own funding policies independent from how they calculate the annual required contribution for reporting purposes.

Costrell goes on to note that the level-dollar method is intended to ensure that pension costs are fairly spread across generations of taxpayers and that future taxpayers don’t bear an unfair burden, as they would with the back-loaded payments under the level percentage of payroll method. But the level percentage of payroll method can achieve fairness by simply calculating that payment over a different base—one that includes active employees and not only members of the closed defined benefit plan. That is, if the level percentage of payroll method is applied to total payroll, and not to a subset of payroll, then the amortization schedule will not be affected, and the goal of intergenerational equity will be met.<sup>3</sup>

In sum, states are free to set contribution policy according to a few approaches and are not bound by GASB standards intended only for reporting purposes. When Alaska closed its Public Employees’ Retirement System and Teachers’ Retirement System plans to new hires, it kept its existing amortization schedule for funding purposes.<sup>4</sup>

The accounting-based transition cost objection has been addressed and is generally no longer presented as a barrier to pension reform. New guidance contained in GASB statements 67/68 has clarified that the change in amortization schedule to a level-dollar method is only for reporting purposes. A second line of argument has replaced the accounting-based transition cost objection.

## INVESTMENT-BASED TRANSITION COSTS

This newer objection holds that closing the defined benefit plan increases costs for the sponsoring government since the plan must gradually shift its investment portfolio to safer, lower-return investments that are more liquid, thereby lowering the expected return on assets and increasing the plan’s liabilities and short-run costs.

These investment-based transition costs are the subject of a recent Mercatus Center study by Dr. Andrew Biggs and testimony he provided to the Pennsylvania House State Government Committee on March 24, 2015.<sup>5</sup>

The investment-based transition costs argument is a casualty of the flawed accounting standards that have created large, unfunded pension liabilities that states must now address. The use of GASB 27 over the years created an accounting and funding illusion that allowed public plans to ignore investment risk and undercontribute annual plan payments. It is why plans experienced such large and unanticipated losses during the 2008 market crash and why plans suffer from large unfunded liabilities today.

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2. Robert M. Costrell, “GASB Won’t Let Me’: A False Objection to Public Pension Reform,” LJAF Policy Perspective, Laura and John Arnold Foundation, Houston, May 2012, <http://www.arnoldfoundation.org/img/LJAF-Policy-Perspective-GASB-Wont-Let-Me.pdf>.

3. Costrell, “GASB Won’t Let Me,’” 20.

4. *Ibid.*, 26–29. According to Costrell when Alaska closed the DB plan and switched to a DC plan, the system used the level-dollar method for one year. They then enacted a statute to use total payroll (instead of payroll for plan members) as the amortization base. This enabled them to return to a level percent of projected payroll.

5. Andrew Biggs, “Transition Costs and Public Employee Pension Reform,” testimony submitted to the House State Government Committee, Commonwealth of Pennsylvania, March 24, 2015, <http://mercatus.org/publication/transition-costs-and-public-employee-pension-reform>.

The crux of GASB 27—the accounting guidance used to measure plan liabilities that is now being replaced by GASB 68—is that it is possible to value the plan’s liabilities, which are a low-risk, legally guaranteed stream of future cash flows, with reference to high-risk, high-return expected asset performance. However, according to well-established principles of economics, the return on plan assets is absolutely irrelevant to the value of the liability—the benefits promised to workers.

Liabilities are much like bonds—guaranteed in statute to be paid to retirees—and should be valued based on bond rates. A pension plan’s asset-investment strategy should therefore be a liability-matching strategy. One such liability-matching approach uses an asset mix that reflects the age and employment-status mix of the plan’s beneficiaries. I will explain this approach in a moment.

Once plan liabilities are valued on an economic basis—that is, valued like bonds—and invested in a way that reflects the risk and timing of payments, the present value of liabilities rises, but the risk of underfunding is lessened, if not nearly eliminated. As Biggs writes, “True full funding acknowledges the expected return on a mixed portfolio of stocks and bonds is uncertain. But the liabilities the plan is obligated to pay are guaranteed.”

It might seem that a 7.75 percent annual expected return on pension assets is a reasonable assumption based on historical average stock market performance. This argument is an artifact of improper accounting that implies it is possible to guarantee a certain, risk-free benefit with volatile investments. In reality, exposure to stock market volatility lessens the likelihood that there will be enough money in the plan to pay benefits when they are due.

The majority of a plan’s obligations are payable over the next 15 years. Even if plans accurately predict market returns over a long period, they must pay out benefits over the short term, when average market returns are more uncertain. There is a significant probability that a “fully funded” plan would be unable to meet its obligations even if the plan accurately projects average market returns. But it is a near certainty that the government will not opt to default on plan payments to retirees, and there is a roughly 50 percent chance that plans will be unable to pay benefits under an 7.75 percent assumption.

Changing the annual return assumption from a risky 7.75 percent to a conservative 3 percent means that the plan requires higher contributions in the present to fund promised future benefits. Economists and accountants use the term discount rate to describe the interest rate used to transform the future value of plan benefits into a present value. The discount rate calculation is basically the reverse of the compound interest rate calculation that shows us how an investment grows over time at a given interest rate.

The accounting flaw embedded in GASB 27 that allowed the use of an 8 percent discount rate is why economists estimate that Pennsylvania’s true pension liabilities are several times larger than what government accounting suggests. In fact, the probability of Pennsylvania meeting its pension obligations by the year 2030 without additional contributions is not even 50 percent, but significantly lower: 31 percent for the Public School Employees Retirement System (PSERS) plan and 16 percent for the State Employees’ Retirement System (SERS).<sup>6</sup> The need to make up this shortfall is the reason for saying that closing a defined benefit plan generates investment-based transition costs. But these costs lessen the risk of pension underfunding and may even eliminate the risk.

## HOW SHOULD PLANS INVEST, AND HOW SHOULD A CLOSED PLAN INVEST?

Retirement experts often recommend that workers adopt a life-cycle approach to investment that reduces the portfolio’s allocation to risky assets as the individual ages. As a person approaches retirement, the goal is certainty and liquidity. By contrast, a young person just entering the workforce can take on more investment risk, as he or she has several decades to save for retirement and ride out fluctuations in portfolio value.

6. Gary A. Wagner, “The State of Pension Funds in Pennsylvania,” testimony before the State House Government Committee, Commonwealth of Pennsylvania, March 24, 2015, <http://mercatus.org/publication/state-pension-funds-pennsylvania>.

As Biggs notes in his research, one guideline for a life-cycle approach is to allocate a percentage of the investment portfolio to stocks equal to 100 percent minus the investor's age. A 20-year-old might hold 80 percent in stocks and 20 percent in bonds. A 60-year-old might hold 40 percent in stocks and 60 percent in bonds. This approach is similar to the strategy followed by public-sector plans in other countries, as well as by private-sector defined benefit plans in the United States. As participants age, the plan shifts to less risky asset allocations.

Unfortunately, due to the illusions created by GASB accounting guidance, public-sector plans have used the exact opposite approach: allocating the portfolio to riskier assets as the plan's participants age. Biggs finds that for non-US defined benefit plans, a 10 percent increase in the percentage of retired members is associated with a 1.2 percentage point reduction in the plan's allocation to risky assets. US public-sector plans do the opposite: a 10 percent increase in the percentage of retired members is associated with a 2.1 percentage point increase in the plan's allocation to risky assets.<sup>7</sup>

Both open and closed defined benefit plans could follow a life-cycle approach. The key is to allocate the portfolio according to the employees' age distribution.

Deborah Lucas, a professor of finance at MIT's Sloan School of Management, and Stephen Zeldes, a finance and economics professor at Columbia Business School, show that a matching portfolio for a defined benefit plan should account for age and variable wage growth for a plan's active employees. Active employees continue to earn benefits in open defined benefit plans and in plans that have undertaken a "soft freeze" by closing to new hires but allowing current workers to continue earning benefits under the old plan.

Younger employees who are actively accruing benefits in these scenarios are likely to see their wages grow over time, and thus the plan's liability to those workers can be matched to riskier assets, such as stocks. Inactive employees and retirees, whose final salaries are known, should have their liabilities matched to lower-risk assets, such as bonds. Lucas and Zeldes find that a 22-year-old employee's portfolio should have an 83 percent allocation to stocks, since a young employee has a long time until retirement. A 62-year-old in the same plan, with only a few years until retirement, should allocate only 14 percent of the portfolio to stocks.

The defined benefit plan's overall portfolio should be based on the age composition of that plan's workers. In a plan that is closed to new hires, the portfolio should gradually shift to bonds as more workers move from active employment to retirement and those collecting benefits in the plan shrink.

## WHAT SHOULD PENNSYLVANIA'S SERS PLAN LOOK LIKE?

Biggs applies the Lucas-Zeldes asset allocation model to public plans to model how a closed defined benefit plan might allocate its assets. In particular, he has calculated what Pennsylvania's SERS plan's asset distribution might look like based on the age structure of its participants.

Active employees make up 52 percent of all SERS beneficiaries. Three percent of plan participants are inactive, and 45 percent are retirees. Based on these participants' ages, Biggs estimates that active employees would hold 28 percent of their assets in stocks. Since these employees make up 52 percent of the total, 28 percent is weighted by 52 percent. Thus, the total amount of stock holdings in the SERS portfolio should be 15 percent, with the remaining 85 percent in bonds.

Remember that retirees' benefits are bond-like, as retirees are collecting benefits and experiencing no wage growth. Liquidity and certainty are the goals for retirees; there is no reason to hedge their liabilities with stocks. Their hypothetical portfolio generates a discount rate of 3.5 percent, and that leads the SERS funding ratio to fall to 32

7. Deborah J. Lucas and Stephen P. Zeldes, "Valuing and Hedging Defined Benefit Pension Obligations: The Rule of Stocks Revisited" (working paper, Northwestern University and Columbia University, September 2006). Also see, Deborah J. Lucas and Stephen P. Zeldes, "How Should Public Plans Invest?," *American Economic Review* 99, no. 2 (2009): 527-32.

percent. But it is important to stress that the lower funding ratio and higher liabilities are the result of investing the portfolio conservatively to guarantee payment to retirees and to avoid future surprises of underfunding to employees and additional burdens to taxpayers. The lower investment return would also apply to a shrinking liability.

The objection to investment-based transition costs is a variation on the objection to valuing the plans based on the legal guarantee of payment. The closed plan forces more accurate disclosure and less-risky investment to achieve full funding of future benefits. The shift to a lower-risk portfolio in a closed plan is one that comes with an increased probability of funding benefits and enabling stable and predictable contributions from government. The current SERS plan assumes 7.75 percent annual returns, but the plan has less than a 50 percent chance of achieving that return over the long run. Essentially, taxpayers are on the hook for the shortfall.

In sum, the objections raised in pension reform discussions that cite transition costs as a financial barrier to closing existing defined benefit plans are rooted in incomplete analysis and in accounting assumptions that have contributed to plans' growing unfunded liabilities. In keeping with standard investment practice for retirement savings, a closed defined benefit plan should, like private-sector and non-US defined benefit plans, gradually switch the plan's portfolio to less risky and more liquid investments to match the age and retirement status of plan members. The gradual shift in a closed plan to less risky investments does not generate costs, nor add liabilities, but rather makes full payment to retirees guaranteed, which is the goal and intent of the plan: to ensure workers receive full retirement benefits without imposing future fiscal burdens on Pennsylvania's citizens.