

The Transition Cost Mirage – False Arguments Distract from Real Pension Reform Debates

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Introduction

By their own estimates, state governments have accrued more than three-quarters of a trillion dollars in pension debt. When combined with municipal pension debt, conservative estimates of the total state and local unfunded liability top \$1 trillion. While the global financial crisis and the recession that followed are partially to blame for this huge run-up in debt, structural problems with the traditional defined benefit system and irresponsible policy decisions are also culprits. Annual pension payments were on the rise well before financial markets took a turn for the worse in the fall of 2008. In fact, pension costs have been increasing almost universally since the tech bubble burst in the early 2000s signaling the end of the historic run-up of equity prices that occurred through the 1990s.

Given that pension systems rely on investment returns to fund the majority of promised worker benefits, pension costs rise when the economy underperforms. Thus, recent pension cost increases have coincided with sharp declines in tax revenues that followed the financial crisis. This has put immense stress not only on state and local budgets, but also on employee wages and benefits.

In the wake of rising pension costs and stagnant or declining budgets, many policymakers have questioned the sustainability of the current system. The accumulated pension debt will take decades to pay off (most states spread debt payments across 30 or more years), increasing cost in the medium- to long-term and leaving plans and worker benefits vulnerable to another downturn.

In light of this challenging fiscal situation, many jurisdictions have looked to reform their retirement savings systems. The majority have maintained the traditional defined benefit structure, cutting benefits primarily for new workers, but in some cases for current employees and retirees as well. While these efforts reduce the cost of benefits, they do not address the root of the problem because they maintain the core structure that allowed the pension debt to grow so precipitously in the first place. Other more ambitious jurisdictions have sought to engage in comprehensive reform that will not just cut cost, but will also definitively fix the system, protecting workers and taxpayers alike.

As policymakers have considered reforms, many concerns have been raised about transitions to different retirement savings systems. Opponents of reform have sought to derail these efforts by, among other things, claiming that any transition from the status quo would result in significant, unforeseen costs. This paper will briefly describe the major “transition cost” arguments and will explain why those arguments do not survive careful analysis.

Pension Cost Explained

Before discussing specific transition cost arguments, it is important to establish a more general understanding of pension cost. A public employer's annual pension payment is comprised of two parts: (1) normal cost and (2) debt service.¹ These two parts are wholly separable and should be handled as distinct budgetary line items. Mishandling either portion can lead to additional pension debt and, in turn, growing benefit cost.

Public pension systems are meant to be pre-funded, that is employee and employer contributions made during a worker's career should fully cover the cost of promised benefits. Normal cost is the cost of the retirement benefits workers earn each year or the annual contribution necessary to pre-fund employee benefits as they are earned.

Since traditional defined benefit systems promise an annuity that changes dramatically in value during an employee's career and given that the value also varies based on an employee's entry age and salary, cost is not calculated directly at the individual level. Rather, normal cost is estimated across the entire member population. The most common method for estimating normal cost is called Entry Age Normal. This method uses predictions about the future path of many unknown variables, including economic conditions, the probability workers remain in public employment, wage growth, and life expectancy, among others, to calculate a constant percentage of employee pay that, if contributed on an annual basis, would fully fund promised benefits.

When a pension plan's assumptions about the future do not match real world experience, normal cost contributions can be insufficient to cover the cost of benefits workers have already earned. The result is an unfunded liability or pension debt. Paying down any pension debt that accrues is the sole responsibility of the plan sponsor. Future employee contributions are not used to pay down this debt, and employees are always entitled to withdraw their contributions, usually with accumulated interest.

Pension debt should be thought of and managed just like any other government debt. When a government accrues a debt, it has accepted goods or services and used credit to fund that consumption. This is exactly what happens when a jurisdiction accrues an unfunded liability. Public workers provided labor for which they were promised a certain level of compensation, but instead of fully paying the promised compensation using current revenue, government, in effect, took out debt from the pension system to fund its consumption.

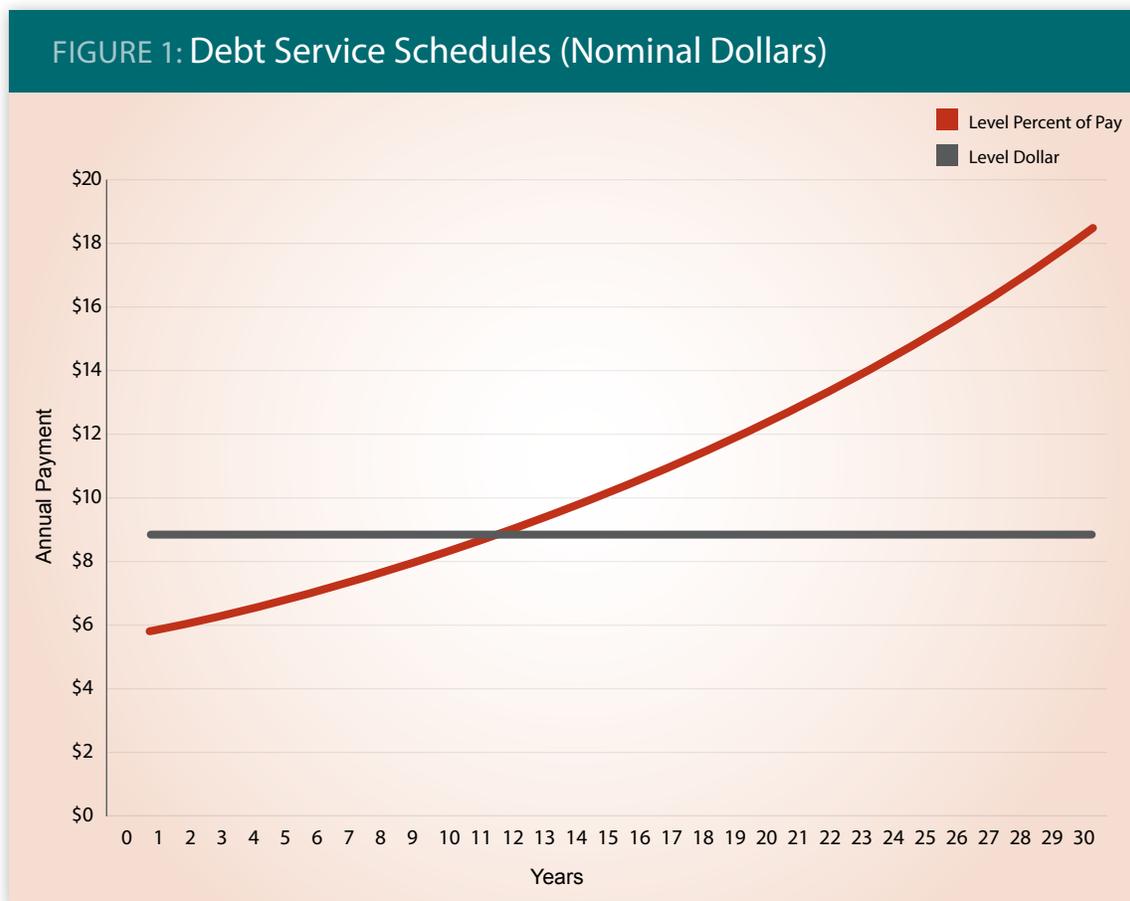
Pension debt is generally amortized, or paid off, through annual payments over many (usually 30 or more) years. Two methods have traditionally been used to determine the repayment schedule for pension debt: (1) level dollar and (2) level percent of pay.

Level dollar amortization works like a fixed 30-year mortgage. Debt is paid through a series of constant or level annual payments. Level percent of pay, on the other hand, allows debt payments to be backloaded, rising over time as payroll increases. Under level percent of pay, debt service payments are a constant percentage of payroll and as payroll increases, so do the debt service payments.

The reasoning behind an increasing payment schedule, like level percent of pay, is that it maintains relatively constant labor cost across time. However, in practice, it allows employers to keep current cost

¹ In pension terminology, debt service is called the amortization payment, but since it is useful to think of the unfunded liability as a debt that is owed to public workers, it is helpful to employ a debt-related term here as well.

low by pushing a large portion of the debt into the future. Figure 1 illustrates the difference between level dollar and level percent of pay amortization.² Although the values for a particular jurisdiction may vary, the shape of these curves will not.



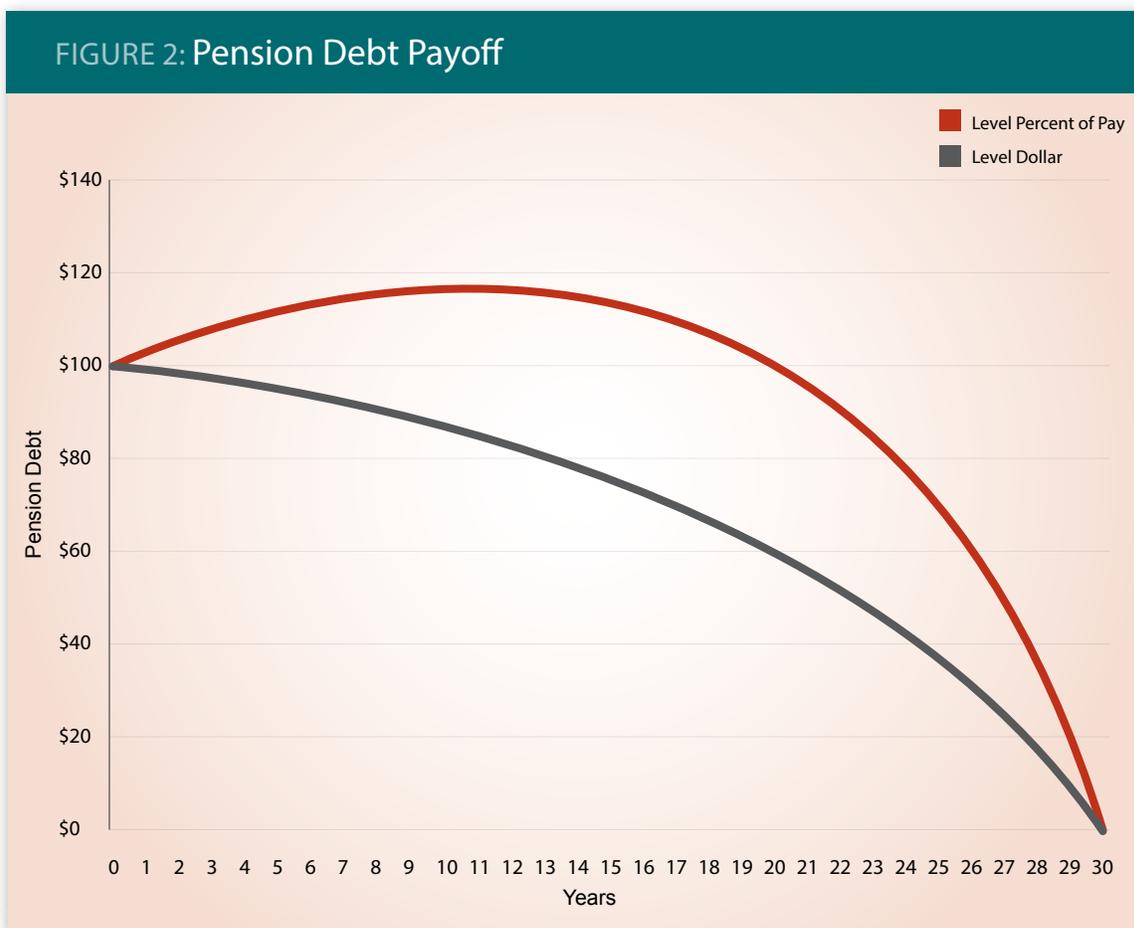
The level percent of pay schedule results in lower annual payments in early years, but much higher payments for the majority of the payment schedule. Because level dollar amortization has higher payments early on, the total amount required to pay off the debt is lower. In this example, a level dollar schedule results in 42 percent of total inflation adjusted debt service payments being made within 10 years, while a level percent of pay schedule only results in 29 percent being paid during that time.

The result of pushing more of the debt into the future is quite costly. Under level percent of pay, the required payments at the end of the schedule will be more than twice as large as under level dollar, and the total amount necessary to pay off the debt will be 16 percent larger.

Figure 2 illustrates debt payoff under these differing payment schedules. The most striking feature of this graph is that the level percent of pay line is always above the level dollar line signifying that the debt is paid off more quickly under level dollar. Notably, the debt actually increases for the first

² The amortization example uses an initial pension debt of \$100 amortized over a closed 30-year interval, annual payroll growth of 4 percent, an assumed investment rate of return of 8 percent, and inflation of 2.5 percent.

12 years of the payment schedule under level percent of pay and does not come back down below its original value until year 21. Given the size of current pension debts, using a level percent of pay schedule increases the total cost of worker benefits by billions of dollars.



Policy Arguments

In the face of rising pension cost and a system that allows public employers to underfund worker benefits, many jurisdictions have looked to reform their retirement systems. A few have considered a structural change, moving away from the traditional defined benefit system and toward more sustainable alternatives. In the discussion about structural pension reform, several concerns have been raised regarding how reform would affect the current system and overall cost. The remainder of this policy brief will address the two primary arguments leveled against a transition to a new system.

Argument I: Moving to a new system would starve the current system of needed contributions.

Moving to a new system would have little to no effect on the current system. State and local pensions are pre-funded systems, and unlike Social Security, the contributions of workers today do not subsidize today's retirees. Future normal cost contributions are used to fund new benefit accruals that workers

earn on a go-forward basis and are not used to close funding gaps. Therefore, it matters little whether the normal cost payments are used to fund new benefits under the current system or a new system.

If new workers are placed in a new system that has an annual cost equal to, or less than, the current plan's normal cost, and the new plan has less funding risk, then the new system will cost less than the current system. The new system could provide new workers with more certainty that their benefits would be fully funded. It could also reduce the risk of a future funding crisis, providing added retirement security to those workers who have already earned benefits under the current system.

Paying the pension debt is the sole responsibility of the public employers who participate in the plan, and as previously discussed, they make debt service payments, in addition to the normal cost, to pay down that debt over time. Moving new workers to a new system does not affect the funded level of past benefit accruals, nor does it affect the debt service payments employers must make to pay off any accrued debt. The pension debt is a bill that is owed to public workers for past service, and this debt must be paid regardless of the go-forward retirement savings system.

In situations where a plan is severely underfunded, the plan may face a cash flow problem. This is particularly true when plan sponsors have consistently avoided making prudent debt service payments by either intentionally underfunding the annual pension payment or irresponsibly pushing too much of the debt into the future by back-loading the funding schedule. However, few plans are currently in such bad shape. Moreover, the fix in these situations is not to continue on the same path until worker benefits are in jeopardy and taxpayers face a huge run-up in contributions. The solution is to comprehensively reform the system, to secure past accruals, and to create a system going forward that is affordable, sustainable, and secure.

Argument II: There are large costs associated with a transition.

Some claim that even though a new system might be desirable, it is impossible to get from here to there because of large costs associated with a transition. These claims are wrong both in theory and in practice. Below are the two primary "transition cost" claims that have been advanced.

GASB requires a shift in amortization method for closed plans

University of Arkansas Professor Robert Costrell thoroughly debunks this myth in a paper titled "*GASB Won't Let me*"- *A False Objection to Public Pension Reform*.³ This claim is based on the accounting rules set forth by the Government Accounting Standards Board (GASB). The old rules (GASB 25 & 27) called for an accounting switch from level percent of pay amortization to level-dollar when debt service payments could no longer be spread over a growing payroll. Actuaries have shortsightedly labeled the switch in amortization schedules a cost because it would lead to higher payments in the short-run as illustrated in Figure 1. However, moving to level dollar would also pay off the pension debt faster and significantly lower overall cost. In the end, if governments were to make this switch, it would *save money*.

In addition, this old GASB rule only applies to situations where the debt service for a defined benefit plan can no longer be spread over a growing payroll. As such, it does not apply to situations where the plan sponsor moves new employees to a hybrid or cash balance system, but only to a scenario where

3 This paper is available electronically on the Laura and John Arnold Foundation website. [Click here to open the document.](#)

the old defined benefit system is closed and new employees are placed in a defined contribution. Even then, debt service payments can easily be spread over total payroll, rather than just defined benefit membership as Alaska did when it switched to a defined contribution plan in 2005. Alaska remains on a level percent of pay amortization schedule despite closing its defined benefit plan to new entrants. Alaska has been rewarded for the action it took to reform its pension systems. Ratings agencies have upgraded the state's credit rating twice since 2005 both times citing pension reform as one of the reasons.

Importantly, the language regarding amortization schedules has been removed from GASB's recently approved update (GASB 67 & 68). The new standards go into effect in fiscal year 2014 and make this claim entirely moot going forward. In describing the revision, GASB made it clear that it sets standards for accounting and has never had any authority to dictate funding policy.⁴ Now, as it has always been, it is up to state and local governments to adhere to a prudent payment schedule on pension debt.

Winding-down requires more conservative and liquid investments over time

When a defined benefit pension system is closed to new members, it will eventually pay all of the benefits owed to workers and cease to exist. Some have claimed this wind-down requires the fund to invest more conservatively and in more liquid investments as the fund gets closer to closure. The first of these claims is simply wrong, and the second is trivial.

The claim that a closed fund must shift to more conservative investments is based on a misunderstanding of portfolio theory. The level of risk a government is willing to take with its pension investments should be independent of whether the plan is open or closed.⁵ A government should be willing to accept the same level of pension investment risk regardless of whether plan assets are growing or shrinking. The myth of time diversification was debunked many years ago by Nobel laureate Paul Samuelson.⁶

Regarding investment liquidity, a closed plan will need to move to more liquid investments at the very end of its existence to make benefit payments, but this change in asset allocation does not need to happen until the last few years of a plan's existence when the remaining asset base is small. Given the small size of the affected asset base and the fact that only a relatively small portion of pension assets are in illiquid investments to begin with, the effect of a shift to more liquid investments will have a trivial effect on overall plan cost. The cost of transitioning to more liquid investments is not only trivial relative to overall plan cost, but is also orders of magnitude smaller than the potential downside risk of the current system, a fact that is surprisingly absent from these discussions.

4 A plain language description of the recent GASB changes can be found on its website. Click here to open the document.

5 For a concise and relatively non-technical explanation of time diversification see "The Portable Financial Analyst: What Practitioners Need to Know" by Mark Kritzman.

6 Paul Samuelson originally debunked the myth in a 1966 paper. Since then, Zvi Bodie and others have also debunked the myth. See Samuelson, P. (1966). Risk and Uncertainty: A Fallacy of Large Numbers. In J. Stiglitz (Ed.), *The Collected Scientific Papers of Paul A. Samuelson*. Cambridge, MA: MIT Press, and Bodie, Z. (1995). On the Risk of Stocks in the Long Run. *Financial Analyst Journal*, 51(3), 18-22.

Conclusion

Public pension reform is arguably one of the most immediate and intractable financial problems facing all levels of government today. The underfunding of worker retirement benefits is irresponsible. Rising pension cost has placed undue political and budgetary pressure on workers' benefits, salaries, and even their jobs. Unfortunately, the next generation of public workers and taxpayers will be left to deal with this hefty fiscal burden unless we take action to fix the system.

Too often misguided claims of potential increased cost frustrate reform efforts that would otherwise place systems on a more sustainable path, protecting both workers and taxpayers. Policymakers should move beyond these distracting and misleading claims and fix the broken system once and for all.