

State policymakers have heeded the data that indicates closing public pensions will not address pension funding shortfall despite facing financial pressures and corporate trends away from the defined benefit plans because....

- Establishing a defined contribution or hybrid plan for new hires does nothing to reduce existing unfunded liabilities.
- DB pensions provide income to retirees for as long as they will live, while in a DC account each retiree bears the risk of outliving their savings.
- DB plans are inherently efficient—they have higher returns, lower costs and pooled longevity risk.
- Other states that have examined the complexities of pension reform have not concluded that switching from a DC to a DC is not the best course of action.

Thinking back to 2007 — before the financial crisis — public pension plans in the aggregate had nearly 90% of the assets on hand required to pay retirement benefits due decades in the future. However, like all investors, public pension funds took a deep hit when the financial markets melted down in 2008. With markets in a downward freefall, pension assets plummeted, unfunded liabilities grew and pressure mounted on state policymakers to enact reforms. Even states with well-funded plans were prudent to closely examine their retirement systems, while policymakers in states that had fallen behind on their contributions prior to the Wall Street crisis faced tough decisions.

While some wanted to use the financial environment to advocate for a wholesale switch to individual defined contribution accounts from defined benefit pensions, it did not happen. That begs the question — why did policymakers stick with their defined benefit plans in the face of financial pressure and the corporate trend away from them? One explanation is state policymakers heeded the data that indicate closing public pensions do not address funding shortfalls.

 **CLOSING A DB PENSION INCREASES
UNFUNDED LIABILITIES**

Establishing a DC plan, or even a hybrid plan for new hires, does nothing to reduce existing unfunded liabilities. For example, the federal government still faces massive unfunded liabilities from its frozen DB plan, more than 25 years after it created a hybrid system for new hires.¹

When a DB pension is closed to new members, this reduces the number of active members and their pension contributions over time. Ultimately, sound pension funding principles require that the employer increase contributions dedicated to paying off unfunded liabilities, until those liabilities are eliminated. Deferring these costs would be contrary to the cost-cutting rationale for pension reform.

An ongoing DB plan has a mixture of early-, mid-, and late-career members, enabling the pension portfolio to be diversified over a long investment horizon. When pension reforms cut off new entrants and their associated contributions, active member contributions will decline over time. In addition, the trustees and the professionals who manage the plan need to make adjustments such as shortening the investment horizon in line with the plan's now fixed obligations. For pension funds following accepted actuarial funding practices, one potential consequence of closing a plan to new entrants is that the time period for paying down existing unfunded liabilities may have to be shortened, depending on the demographic makeup of the plan. This means that liabilities have to be paid down faster, resulting in higher annual required contributions.

Another consequence is that closed plans will over time have to shift assets towards stable, more liquid investments, which have correspondingly lower investment returns. This in turn will raise the cost of funding promised benefits.² For this reason, state-level studies have found that closing off a DB pension plan could increase its unfunded liabilities by as much as one-half.

SUBSTITUTING DB PENSIONS WITH DC ACCOUNTS IS INEFFICIENT

Proponents of 401(k) style accounts for public sector employees argue that they are both less risky for employers and less costly. DC accounts do indeed shift investment risk and market risk from employers to employees. Also, while a DB pension provides income to retirees for as long as they will live, in a DC account each retiree bears the risk of outliving their savings, which is called longevity risk.

Studies have shown that the inherent efficiencies of DB pensions compared to DC plans—higher returns, lower costs, and pooled longevity risk -- translate to significantly higher funding costs in a DC plan to provide a given level of retirement benefit and a high level of risk for individual employees. This means that for each taxpayer dollar spent on retirement benefits, a DC system yields substantially lower value compared to a DB system.

Lower investment returns. In general, 401(k) accounts generate lower investment returns than do DB pensions, which are professionally managed and can diversify their investment portfolios across a wider array of asset classes and invest over a much longer time horizon. Differences in asset allocation account for about 1 percentage point lower average annual returns in DC accounts than in DB pension funds during the 14 years ending in 2010, according to CEM Benchmarking.³ This is consistent with a number of other studies on comparative returns in DB pensions and 401(k) accounts over the long term. Furthermore, research in behavioral finance has found that most individuals do not invest in a way that is appropriate for their risk tolerance and age.⁴

Higher expenses/fees. It is well documented that DC plan fees cost more than DB pensions, which have the advantage of economies of scale and centralized investment management. For instance, an industry funded study by Deloitte and the Investment Company Institute (ICI) calculates typical DC plan fees at 60 basis points (.6 percent) on an asset-weighted basis.⁵ In contrast, researchers at Boston College find that fees average just 25 basis points (.25 percent) for public sector DB plans.⁶

Individual longevity risk. Retirement benefits that rely heavily on 401(k)s also require prudent workers to accumulate assets that will last beyond their average life expectancy, while DB plans pool longevity risk and thus need to be funded only for the group's average life expectancy. In order to assure that workers will not run out of their retirement funds, a DC account requires a contribution rate 28 percent higher than a DB plan.⁷ While individuals can theoretically obtain a lifetime incomes stream by purchasing life annuities from private insurance companies, these annuities are much more expensive than public DB pensions.

Because of these and other factors, providing comparable benefits through a DB pension costs 46 percent less than through a 401(k).⁸ Conversely, providing the same retirement income through a 401(k) plan costs 83 percent more than it does through a DB pension.



STATES HAVE FOUND TRANSITIONING TO DC PLANS MAY REDUCE RISK BUT COST MORE

In light of the above realities, public retirement systems that have seriously examined the cost of alternative plans have consistently found DC-centered arrangements to be significantly more costly than DB-centered arrangements for a given level of benefit. Studies indicate that incrementally modifying DB pension benefits to lower long-term costs and increasing contributions is the usually the most cost-efficient option. States that have carefully examined the complexities of pension reform since 2008 have not concluded that shifting to DC plans is the best course of action.



WEST VIRGINIA

West Virginia's pension reform in the 1990s is a cautionary tale for policymakers. West Virginia learned the hard way that a switch to defined contribution accounts from defined benefit plans does nothing to close unfunded pension liabilities, and can leave employees unable to retire.

To address historical underfunding of the West Virginia Teachers' Retirement System (TRS), the state closed the TRS and moved teachers hired after 1991 to 401(k)-type defined contribution accounts. More than a decade later, both the DB plan and the new DC plan faced challenges. The TRS DB plan was less than 20% funded, while teachers with DC accounts found their balances inadequate. Since West Virginia wisely reinstated its pension plan, the TRS DB finances have improved significantly and teachers are better positioned to retire.

While teachers made their required contributions to the TRS DB plan out of every paycheck, until 1991 state policymakers operated the system on an expensive a pay-as-you-go model that built up a significant unfunded liability. West Virginia adopted an actuarially based plan to reach full funding for the liability in the closed pension plan in 1994. But with the plan closed, demographics shifted quickly. By 2005, TRS paid pension benefits to nearly two retired teachers for every active teacher still contributing to TRS. When combined with funding percentage levels in the low 20s, this was a major concern.

Meanwhile, all new teachers made their mandatory 4.5% of pay contribution to the DC plan and employers contributed 7.5% of salary. However, the teachers' investment decisions were conservative and generated lower investment returns. As a consequence, teachers approaching retirement under the DC plan on average had less than \$25,000 in their accounts and could not afford to retire, according to a 2005 study.

With these poor results, lawmakers cut their losses in 2005. They closed the 401(k) plan and reopened the pension plan to new teachers. This generated an immediate savings for the state because the “normal cost” for TRS was roughly half of the required employer contribution to the 401(k) plan.

On the demographic front, nearly 36,000 active teachers make the 6% contribution to the DB plan and about 32,000 retirees receive a monthly pension check. Now more sharply focused on the state’s 2034 pension full-funding deadline, West Virginia demonstrated its renewed commitment to catch up on past pension funding payments by using \$807 million from its tobacco settlement fund to shore up the TRS plan.

Today, the West Virginia TRS pension plan continues to improve. The system’s financial statement as of July 1 reported funding was at 58% of liabilities. That means that in the eight years since reopening the TRS pension, the state narrowed by half what historically was a sizable pension funding gap. Other states have watched and learned from the West Virginia experience.⁹

TEXAS

The Employee Retirement System of Texas (ERS) completed a comprehensive report in 2012 that considered multiple factors in designing pension reform, including the role of DB pensions in employee recruitment and retention, the value that pooled investing brings to both workers and the state, and the cost of freezing DB plans.¹⁰ The ERS report noted that in many cases, the increased cost of freezing a DB plan, combined with the inefficiencies of DC plans described earlier in this brief, made it sensible to “modify the existing plan design instead of switching all employees to an alternative plan structure.”¹¹

The Teacher Retirement System of Texas (TRS) also completed a detailed analysis of the costs and benefits of alternative retirement systems. The study projected incomes from individual DC accounts with the same contributions, using reasonable estimates of returns on worker selected investments. The study concluded that participants would have only a 50 percent chance of earning investment returns high enough to get 60 percent or more of the current DB plan benefit. Conversely, the study found that it would cost 12 to 138 percent more to fund a target benefit through alternative retirement systems. Individually directed DC accounts were found to be the most costly, and a DB system the least costly. Finally, the study estimated that freezing the DB pension could cause the liability to grow by nearly an estimated \$11.7 billion—49 percent higher than the current liability.¹²

MINNESOTA

In Minnesota, a 2011 study on switching to a DC plan for new hires found that it would decrease costs over the medium term and that it would dramatically increase costs in the short term. And over the long term, the DC plan would be less efficient than the existing DB system in cost-benefit terms.¹³ The study estimated transition costs of \$2.8 billion for the state, due in large part to the impact of switching to more conservative investments in the frozen pension in order to cope with negative cash flow.

- ¹ D. Oakley, 2012, “Federal Employees’ Retirement System and the Thrift Savings Plan,” National Institute on Retirement Security, Washington, DC.
- ² See, for instance, California Public Employee Retirement System (CalPERS), 2011, “Issue Brief: The Impact of Closing the Defined Benefit Plan at CalPERS,” CalPERS, Sacramento, CA.
- ³ M. Heale, 2012 (Mar.), Presentation for the 2012 National Institute on Retirement Security Annual Policy Conference, Washington, DC.
- ⁴ A. H. Munnell, J. Libby, J. Prinzivalli, and M. Soto, 2006, “Investment Returns: Defined Benefit vs. 401(k),” *CRR Issue Brief* No. 52, Center for Retirement Research at Boston College, Chestnut Hill, MA.
- ⁵ Munnell, A.H. and A. Sunden, 2004, *Coming Up Short: The Challenge of 401(k) Plans*, Brookings Institution Press, Washington, DC.
- ⁶ “Typical” in this case refers to the median, or 50th percentile, fee level. Deloitte and Investment Company Institute (ICI), 2011 (Nov.), “Inside the Structure of Defined Contribution/401(k) Plan Fees: A Study Assessing the Mechanics of the ‘All-In’ Fee,” Deloitte.
- ⁷ A. H. Munnell, A.H. and M. Soto, 2007 (Nov.), “State and Local Pension Plans are Different from Private Plans,” *State and Local Pension Plans*, No. 1, Center for Retirement Research at Boston College, Chestnut Hill, MA.
- ⁸ B. Almeida, and W.B. Forna, 2008 (Aug.), “A Better Bang for the Buck: The Economic Efficiencies of Defined Benefit Pension Plans,” National Institute on Retirement Security, Washington, DC.
- ⁹ D. Oakley. “Flaws of adopting cose cutting in switching to DC plans.” *Pensions & Investments*. 20 Jan. 2014: 12. Print.
- ¹⁰ 14 Almeida and Forna, op cit.
- ¹¹ Employees Retirement System of Texas (ERS), 2012 (Sep. 4), “Sustainability of the State of Texas Retirement Program—Report to the 82nd Texas Legislature,” ERS, Austin, TX.
- ¹² Ibid., p. 12.
- ¹³ Teacher Retirement System of Texas (TRS), 2012 (Sep. 1), “Pension Benefit Design Study,” TRS, Houston, TX.