

# ISSUE BRIEF

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## Understanding Public Pension Costs: The Example of Wisconsin

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The generosity of pensions provided to public-sector workers has come under increased scrutiny as states and local governments search for ways to close their budget deficits. The intense and ongoing battle over public-sector collective bargaining in Wisconsin, for example, is in part a conflict over the generosity of public-pension benefits. Whether reducing pension benefits is a wise policy choice depends crucially on understanding the full costs to taxpayers. Unfortunately, the complexity of estimating pension costs has led to significant confusion among both policymakers and taxpayers.

This paper is a short primer on the public-pension issue, starting with the basics and moving to the most politically salient aspects. Wisconsin is used throughout for illustration, but the broader points apply to pensions in general.<sup>1</sup>

**Pensions Are Paid from an Investment Fund.** A defined-benefit (DB) retirement plan is a traditional pension that pays recipients a fixed sum at regular intervals between retirement and death. State and local DB plans for government employees, hereafter shortened to “public pensions,” are designed to be fully funded, meaning plan administrators set aside money each year to pay the pension benefits that active workers earn (or “accrue”) in that year.

Administrators put these annual pension contributions into an investment fund. The combination of the annual contribution and the interest earned on that contribution is then supposed to pay for future benefits that current public workers have accrued. (It rarely does in practice, as discussed later.)

**Projected Costs Must Be Estimated by an Actuary.** Pension benefits to retirees are determined by a formula based principally on years of service and salary near retirement. For example, a typical benefit formula might be 2 percent of final salary multiplied by years of service.

But since it is impossible to know precisely how long any given public employee will work, what his average salary will be when he quits, and

how long he will live past retirement, some assumptions are needed to estimate costs. Using these assumptions, actuaries working for pension funds develop estimates of the “normal cost” of pensions, which is the amount of money that must be set aside today to pay for the future pension benefits that have accrued this year.

For example, the Wisconsin Retirement System (WRS), the pension plan that covers most of the state’s government employees, estimated its normal cost to be 11.6 percent of employee wages in 2011.<sup>2</sup>

**Government Actuaries Do Not Properly Account for the Riskiness of Pension-Fund Investments.** Government actuaries dramatically underestimate costs in an important way: They base their normal cost calculation on the expected rate of return on plan investments—7.2 percent for the WRS, 8 percent for many other public plans—which does not account for the riskiness of those investments. Therefore, government actuaries “discount” (reduce the estimated size of) future pension liabilities at a rate that is too high.

A basic principle of financial economics is that liabilities must be discounted at a rate that reflects their

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risk.<sup>3</sup> Pension benefits to state and local government employees are virtually guaranteed to be paid—therefore, nearly all financial economists argue that the discount rate should be based on a virtually risk-free rate of return, such as the yield on U.S. Treasury bonds, which is currently around 3 percent.

Pension funds *might* achieve 8 percent average returns, but they *must* pay their promised pension benefits regardless. Thus, the published normal cost reflects only part of the cost of the pension plan. Additional cost comes from the guarantee that benefits will be paid even if the plan's investments do not generate the predicted returns.

When financial economists advocate risk-free discounting, they mean discounting that properly accounts for risk when funding a guaranteed benefit. They are *not* making projections about future returns or arguing for investing all contributions in risk-free assets. Their point is simply that risk cannot be ignored when calculating the cost of guaranteed future benefits.

**With Proper Accounting, the Real Cost of Public Pensions Can Be Quite High.** The published

normal cost of public pensions must be adjusted upward to reflect the guaranteed nature of pension benefits. Using Wisconsin as an example, what is needed is not the normal cost with the 7.2 percent discount rate used by the WRS, but the normal cost using the lower, risk-free rate. When this adjustment is made, the normal cost of the WRS increases from 11.6 percent of wages to 29.5 percent of wages.<sup>4</sup>

Before the 2011 Budget Repair Bill signed by Governor Scott Walker (R), most state employees in the WRS contributed only about 0.2 percent of their wages toward the pension plan,<sup>5</sup> meaning that the taxpayer cost of the WRS was  $29.5 - 0.2 = 29.3$  percent of the public employees' wages.<sup>6</sup> Now that the reform bill has passed, most government employees must contribute 5.8 percent of their wages, resulting in a new taxpayer cost of 23.7 percent of wages.

It has been frequently reported that the new 5.8 percent employee contribution is "half" of pension costs, but 5.8 percent is half of the improper normal cost estimate that is unadjusted for a risk-free discount rate. *In reality, most government employees in Wisconsin now pay about*

*one-fifth of the cost of their retirements, not one-half.*

**What the Government Puts Into Its Pension Fund Is Not the Same as Actual Costs.** Left-leaning think tanks have attempted to base the cost of public pensions on whatever amounts states and local governments contribute to their pension funds each year. This is fundamentally incorrect. For example, one paper purporting to show that Wisconsin government workers are "undercompensated" recently estimated employer costs for public pensions in the state to be 11.3 percent of base wages, much lower than the actual value.<sup>7</sup>

The 11.3 percent figure is merely what public employers decided to contribute, not what they *needed* to contribute to pay for accrued benefits. Because pension benefits are guaranteed by state law (and often by state constitutions), underfunding pension plans today does not reduce benefits or save money in the long term. It simply delays paying for steadily accruing benefits, forcing future taxpayers to deal with the growing problem.

**Generous Pensions Help Drive Excessive Public-Sector**

1. This paper is only a quick summary. For a more detailed and comprehensive treatment, see Jason Richwine, "The Real Cost of Public Pensions," Heritage Foundation *Backgrounder* No. 2694, May 31, 2012, <http://www.heritage.org/research/reports/2012/05/the-real-cost-of-public-pensions>.
2. "Frequently Asked Questions about Wisconsin Retirement System (WRS) Contribution Rates," Department of Employee Trust Funds, State of Wisconsin, November 30, 2010, p. 2, [http://www.etf.wi.gov/news/2011\\_Contribution\\_Rate\\_FAQ.pdf](http://www.etf.wi.gov/news/2011_Contribution_Rate_FAQ.pdf) (accessed May 18, 2012).
3. The classic theoretical paper is Franco Modigliani and Merton H. Miller, "The Cost of Capital, Corporation Finance and the Theory of Investment," *American Economic Review*, Vol. 48, No. 3 (June 1958), pp. 261-297. For its application to modern pension funding, see Jeffrey R. Brown and David W. Wilcox, "Discounting State and Local Pension Liabilities," *American Economic Review*, Vol. 99, No. 2 (May 2009).
4. The calculation is based on a risk-free interest rate of 3.67 percent, which was the average of the 10-year and 20-year bond yields on July 1, 2011. For more information on adjusting normal costs by changing the discount rate, see Richwine, "The Real Cost of Public Pensions," pp. 4-5.
5. "Questions & Answers Regarding 2011 Wisconsin Act 10 (Budget Repair Bill) & 2011 Wisconsin Act 32 (Biennial Budget Bill)," Office of State Employment Relations, State of Wisconsin, August 12, 2011, p. 4, <http://oser.state.wi.us/docview.asp?docid=7246> (accessed May 18, 2012).
6. Technically, pre-reform Wisconsin law had provided for a much higher employee contribution, but in practice many public employers, including the state of Wisconsin itself, "picked up" (paid for) most of the employee contribution themselves. This is generally no longer allowed under the Walker reforms.
7. Due to acknowledged data limitations, the 11.3 percent figure actually reflects average contributions to DB plans in the states of the East North Central Census Division, not just Wisconsin. Jeffrey Keefe, "Are Wisconsin Public Employees Overcompensated?" Economic Policy Institute, February 10, 2011, <http://www.epi.org/page/-/old/briefingpapers/BriefingPaper290.pdf> (accessed May 18, 2012).

**Compensation.** The annual cost to large private firms of 401(k)-style retirement plans is about 3 percent of payroll—far less than the 23.7 percent that Wisconsin taxpayers are liable for under the state’s public DB plan.<sup>8</sup>

In Wisconsin, California, Ohio, and other states where public-sector compensation has been controversial, generous pensions and other benefits easily outweigh the relatively modest

salaries received by government workers compared to their private-sector counterparts.<sup>9</sup> Ensuring that public workers are paid at fair market rates requires further reform of the way pensions are financed.

**Real Costs Matter for Taxpayers Across the Country.**

Properly estimating the cost of public-sector pensions may seem like something only number-crunching bureaucrats need to worry about. On

the contrary, pension cost analysis informs highly charged political debates that are occurring not just in Wisconsin but all around the country. Public-pension costs are considerably greater than most governments estimate, and a proper understanding of the real cost is the first step toward reform.

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8. The data refer to private-sector companies in the East North Central Census Division. Many private workers in large firms are still enrolled in DB plans, but private-sector DB plans are generally much less generous than public-sector plans.

9. Andrew G. Biggs and Jason Richwine, “The Impact of Act 10 on Public Sector Compensation in Wisconsin,” American Enterprise Institute Working Paper, May 29, 2012, <http://www.aei.org/papers/economics/the-impact-of-act-10-on-public-sector-compensation-in-wisconsin/> (accessed May 30, 2012). See also: Biggs and Richwine, “Public-Sector Compensation: Correcting the Economic Policy Institute, Again,” Heritage Foundation *Backgrounder* No. 2539, March 31, 2011, <http://www.heritage.org/research/reports/2011/03/public-sector-compensation-correcting-the-economic-policy-institute-again>, and Biggs and Richwine, “Public Versus Private Sector Compensation in Ohio,” Ohio Business Roundtable, September 14, 2011, <http://www.dispatch.com/content/downloads/2011/09/BRT-Public-Sector-Comp-Study.pdf> (accessed May 18, 2012).