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About NIRS

The National Institute on Retirement Security is a non-profit research institute established to contribute to informed policy making by fostering a deep understanding of the value of retirement security to employees, employers, and the economy as a whole. NIRS works to fulfill this mission through research, education, and outreach programs that are national in scope.

Executive Summary

The financial crisis of 2007–2009 presented financial challenges to state and local defined benefit (DB) pensions. Like all investors, these large institutional funds were hurt in the stock market decline because large shares of pension assets are invested in the stock market. This led to a drop in plans' funded ratios and an increase in governments' unfunded pension liabilities and costs.¹

Thus, the Great Recession also has led to financial and political pressures on DB pensions. Some observers have argued that states should alter their retirement benefits by switching from DB pension plans to individual defined contribution (DC) or cash balance plans. But from a human resource management perspective, pension plans are recognized as strong recruitment and retention tools in both the public and private sectors. Additionally, virtually every state across the country has enacted large-scale pension reforms since the financial crisis to ensure the long-term sustainability of the plans.

In this paper, we review the evidence on the labor relations effects of existing DB pension plans to assess the likely effects of a switch to DC or cash balance design. We find that the literature and the empirical evidence are unambiguous on a number of key effects. Specifically:

- Public employers would attract a different labor force if they switched retirement benefits away from DB pensions. Public employees would be less committed to their employers and thus less likely to invest in nontransferable skills that are critical to effective government.
- Employee turnover would increase under DC and cash balance plans. These types of retirement benefits no longer defer compensation into the future and thus offer fewer economic incentives for employees to stay with public employers.
- Public employers and employees overwhelmingly choose to stay with DB pensions rather than to move to alternative benefits when faced with a choice—illustrating the high value of DB pensions to public sector labor relations.
- Public employers and public employees would face higher costs, both as a result of ending the existing DB pensions and because of higher investment and administrative costs for alternative retirement plans.

In light of these facts, it is not surprising that while the majority of states have undergone revisions to their DB pensions between 2007 and 2012—some even adding DC features and components—the vast majority has maintained the DB pension model for its employees.

DB pension plans have a track record of simultaneously meeting the goals of employers through their recruitment and retention effects, and the goals of employees through the economic security they offer. The Great Recession has presented some funding challenges to public pensions. Yet, states and localities are willing to address these challenges so that they can effectively compete for skilled employees in the future.

Introduction

The states' fiscal crisis that started in 2008 has focused attention on tax and spending priorities. Following the Wall Street near meltdown, pensions for firefighters, police officers, and teachers, among others, have come under unprecedented scrutiny because states have had to raise the employer contribution to pension plans. These rates have increased to compensate for pension funds losses from the financial markets.

Some observers have argued that states should take the crisis as an opportunity to alter their retirement benefits. Some have specifically proposed changing the nature of public employee retirement benefits by switching from existing DB pension plans to individual DC retirement savings plans or to cash balance plans. Proponents who favor such a change in public employee retirement benefits assert that alternative retirement benefits will provide incentives for more effective public employees to join the public labor force, thus raising overall public sector productivity. DC and cash balance plans supposedly increase employee mobility, which some suggest may make it easier for states to attract highly skilled employees and to let go of ineffective employees.

In the private sector, the shift from pensions to alternative benefits has occurred simultaneously with increased labor force mobility. However, the argument that increased mobility leads to a more effective workforce ignores the fact that public and private employers typically need to offer some form of deferred compensation to attract and retain highly skilled employees. Many private firms, for instance, use stock options and stock grants instead of DB pensions to attract and retain skilled employees. Obviously, stock options and grants are not available in the public sector.

Public employers therefore may experience higher employee turn over absent the pension retention effect. When highly skilled employees turnover, they are less likely to make a substantial contribution to public sector productivity. In fact, a switch from DB pensions to alternative retirement benefits can actually reduce public employee productivity, because increased employee turnover can lead to public employers hiring less experienced employees. Employers also face increased recruitment and training costs.

When faced with financial challenges from 2007 to 2011, states in fact did not move away from their DB pensions. Instead, virtually every state has changed its pension plan in some way during to ensure its long term sustainability. This suggests that states value the many features of DB pensions, including their efficiency, which in part stems from their effectiveness as a recruitment and retention tool.

Defined Benefit Pensions are a Powerful Labor Management Tool

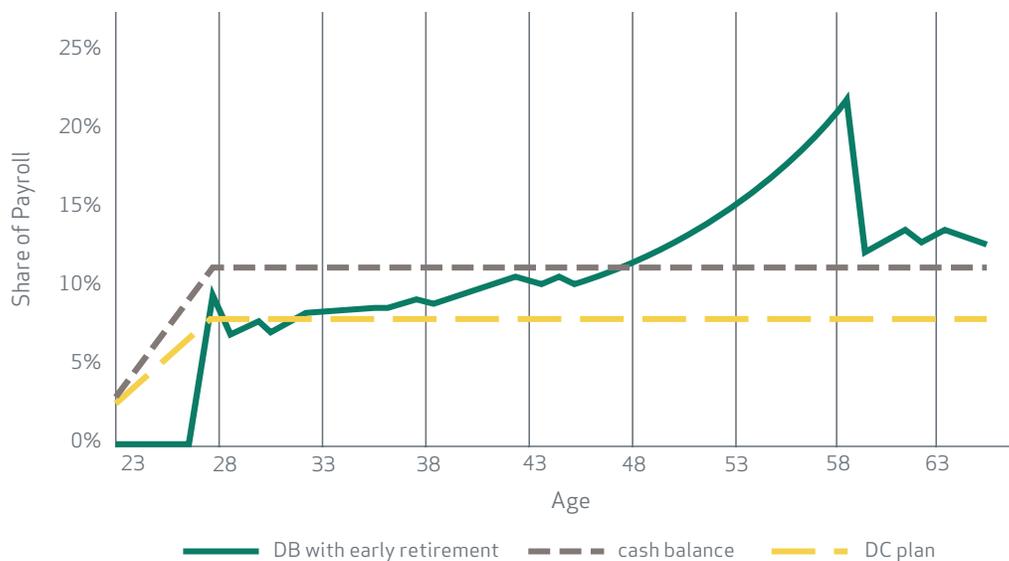
Retirement benefits are a critical part of public employee compensation. Schmitt reports that total public sector benefits amounted to 31.5% of total compensation in December 2009.² Bender and Heywood show that benefits amounted to an average of 32.7% for the public sector between 2004 and 2008 and that 6.5% of compensation is retirement benefits.³

Public employees typically are covered by DB pensions, in which employees receive lifetime retirement benefits based on years of service, age, and final earnings. They often work for at least five or more years before they become vested—that is, before they earn a nonforfeitable and generally legally protected right to their benefits.⁴ Future benefits are financed by employee and employer contributions in addition to investment earnings on accumulated assets. Employee contributions are made at a fixed rate, regardless of

whether the pension plan is underfunded or overfunded. Employers bear the risk if plans have too few assets to pay all promised benefits and more contributions are necessary. They have substantial discretion, however, with regard to the timing and amount of funding.

Public employee benefits make up a smaller share of total compensation earlier in employees' careers than in later years.⁵ Figure 1 below illustrates the annual benefit accrual under a sample teacher DB pension. The x axis shows the years of service, and the y axis shows the annual amount of retirement benefits relative to the annual salary that a teacher earns under a DB pension, cash balance plan, or DC plan.⁶ Employees earn an increasing amount of retirement benefits relative to earnings until they reach early retirement (e.g., after 35 years of service). Teachers still earn additional benefits after the early retirement incentive expires, but the annual accrual is less than during the years leading up to the early retirement age. A teacher, for instance, may work for 35 years in a school until she reaches age 58, assuming she started when she was 23 years of age, and she may earn 2% of her final salary annually as a benefit. If she retired at age 58 after 35 years of service with a final salary of \$90,000, she would receive an annual DB pension until her death of \$63,000 (equal to 35 times 2.0% times \$90,000). (This example is for illustrative purposes only. Many public sector DB plans provide a lower benefit, while some may be higher.)

Figure 1:
Annual Wealth Changes of Teacher Entering in 2011 Relative to Earnings,
Under DB Plan, Cash Balance Plan, and DC Plan, Constant Normal Cost



It should be noted that as many as 30% of all state and local employees are not covered under Social Security, with the degree of coverage varying widely by state and by occupation.⁷ For employees not covered by Social Security, their DB pension benefit may be all the more important, as it is likely their only source of guaranteed income in retirement. As a result, DB pension benefits tend to be more generous for those public employees who do not have Social Security coverage than for those who do.⁸

Alternative Retirement Plan Designs

Although DB pensions remain prominent in the public sector, there are several proposals to replace DB pensions with DC or cash balance plans.⁹ Table 1 summarizes the characteristics of each retirement benefit type. DC plans are retirement savings accounts, which are more common in the private sector than in the public sector as the primary retirement benefit. Under a typical private sector DC plan, employees and

employers contribute a fixed percentage of earnings each year. The money is allocated to an individual account, with employees deciding on the investments and shouldering the risks associated with these decisions.

Individuals face more risk under DC plans than under DB plans. In economic terms, risk poses a cost to individuals, so they should save more to compensate for the greater risk.¹⁰ However recent research in behavioral economics finds that many individuals do not save more as a result of this greater risk.¹¹ Many individuals may not fully understand complex risks, nor do they completely understand how to protect themselves from these risks. Alternatively, individuals may not have a full appreciation of all of the complexities, and even when they do, they do not necessarily act on that knowledge. Studies show that greater risk exposure in DC plans has resulted in more savings, but not enough to compensate for the full increase in individual risk exposure.¹²

Table 1: Characteristics of Typical Pension Plans, by Plan Type

Characteristics	Defined Benefit Plan		Defined Contribution Plan
	Traditional	Cash Balance	401(k)/403(b) plans
Participation	Automatic	Automatic	Voluntary
Contribution	Employer and employee	Employer and employee	Employee with occasional employer matches
Investments	Determined by employer	Determined by employer	Typically determined by employee
Withdrawals	Annuity	Annuity or lump sum	Lump sum
Rollovers Before Age 65	Not permitted	Permitted if lump sum option exists	Permitted
Benefit Guarantee	Often Constitutionally guaranteed	Often Constitutionally guaranteed	None
Early Retirement Benefits	Common	Uncommon	Unavailable
Vesting	Up to a decade Or more	Typically shorter than in traditional pension plans	Typically immediate for employee contributions and often immediate for employer Contributions

Note: Cash balance plans typically do not exist in the public sector. The description thus relies on typical characteristics of private sector cash balance plans. Also, defined contribution plans are generally supplemental retirement savings plans in the public sector and thus tend to be voluntary.

Cash balance plans technically are considered DB pensions, but resemble DC accounts in key aspects. All funds are invested as one large pension pool, as is the case with a DB pension, but each employee receives a notional (hypothetical) account, similar to a DC account balance. In other words, the notional account makes the cash balance plan look like a DC plan to the employee, since the employee sees an account balance that changes from year to year, but the cash balance plan looks like a DB pension to the employer, who is responsible for investing the money and for making sure that the amount that is promised to the employee will be available upon retirement. An employee's notional pension account is credited with an amount equal to a fixed share of an employee's earnings each year, and the account balance increases annually at a predetermined interest rate or credit. The contribution and the interest rate are predetermined, so the employer is responsible for investing the pension plan assets to generate at least this rate of return; otherwise the employer will have to make additional contributions, as in a traditional DB pension. In the public sector, the plan is financed by employer and employee contributions and investment earnings. Employers bear the risk of too low assets. Notional account balances can be rolled over into other retirement plans when an employee switches jobs.¹³

The annual benefit earned with a cash balance or DC plan typically equals a fixed earnings share, which is usually higher during earlier years of employment and lower during later years of employment than under a DB plan. (See Figure 1.) DC and cash balance plans hence may change the recruitment and retention incentives compared to the effects of the DB pension plan.

DB Pensions Increase Employee Productivity

DB pensions serve as an effective human resource management tool, largely because of their recruitment and retention effects. Employers in all sectors have used DB pension plans to reduce attrition of skilled employees.

Employers that have maintained DB pensions have been rewarded by easier employee recruitment and retention.¹⁴ Ippolito, for instance, found that employees seem to value pensions so highly that they would willingly forego higher wages for guaranteed retirement income, possibly reducing the costs of recruiting skilled employees.¹⁵ Nyce found that employees of firms with DB pensions had twice the probability of citing the retirement plan as an important factor in choosing their employer compared to employees at firms with only DC plans. The survey further found that DB plans have a stronger retention effect as well; 69% of employees with DB pensions said that their retirement plan gives them an important reason to stay with their employer, as compared with just 37% of employees with DC plans.¹⁶ MetLife similarly found that 72% of employees cited retirement benefits as an important factor in their loyalty to their employer.¹⁷ And a survey of employers from Diversified Investment Advisors found that 84% of DB pension sponsors—typically employers—believed that their DB pensions has some impact on employee retention, with 31% stating that the impact is major. The survey further found that 58% of plan sponsors with more than 25,000 employees believed that their DB pension has a major impact on employee retention.¹⁸ The value that employees put on DB pensions allows employers to recruit and retain skilled employees.

The retention effect of DB pensions is evident in economic research as lower employee turnover. Allen, Clark, and McDermed offered evidence that employee tenure is greater at firms that offer DB pensions than at firms that do not.¹⁹ Even and MacPherson similarly concluded that firms without DB pensions experience substantially higher turnover rates, ranging from an increase of about 20% in employee turnover to more than 200%.²⁰ The effect of DB pensions on employee turnover tends to be greater at smaller firms than at larger ones. Research from Boston College quantified the reduced attrition associated with DB pensions, which suggested that lower DB pension coverage and higher DC plan coverage beginning in the 1990s correlated with higher turnover rates. DB pension coverage increases tenure with a single employer by four years compared to having no retirement system in place, while DB coverage increases tenure with an employer by 1.3 years compared to DC plan coverage. And the combination of a DB pension and DC plan increases tenure by 3.1 years, relative to DC-only coverage.²¹

Employers with DB pensions also may better attract desirable skilled employees due to a self-selection effect. Employees who are more likely to stick with a job also tend to be more apt to accept employment that offers a DB pension in the first place.²² Boston College research found that public employees, who have relatively longer tenure than their private sector counterparts, seem to prefer DB pensions over DC plans, because DB pensions tend to favor long-term service.²³ Similarly, Dulebohn, Murray, and Sun found that longer-term employees tended to prefer DB pensions to DC and cash balance plans.²⁴ This could be because employees who are looking for a career, rather than a short-term job, seek out employers who offer DB pensions. Ippolito, for example, focused on the attraction effect of DB pensions and considered how employers use retirement plans to attract employees interested in making a long-term commitment to their employers. Employees who delay gratification and are less focused on immediate rewards are more attractive employees for these employers.²⁵

DB pensions, which offer larger compensation to employees with greater tenure, are more attractive to these employees than to those who are more focused on current rewards. Employers with DB pensions thus may use retirement benefits to select the kind of employees who best fit their needs.²⁶ In the same vein, Nyce found that DB pensions had a much larger retention effect than DC plans, and that DB pension plans

raised employees' commitment to their employer, while no such effect existed for DC plans. These results were strongest among younger employees, suggesting that DB pensions can play a crucial role in retaining employees who are willing to make a long-term contribution to their employer's success.²⁷

Better recruitment of targeted employees, increased retention of skilled employees, and greater commitment to the employer translate into higher productivity with DB pensions. Dorsey, for example, found that some labor productivity gains can be attributed to DB pension coverage.²⁸ Hall found that those firms moving from a DB to a DC plan between 1995 and 2000 experienced loss of productivity relative to firms that retained their DB pensions. This loss of productivity may be due to greater turnover after the switch to a DC plan. As more experienced and higher skilled employees leave more quickly, they are replaced with less experienced, less skilled employees, thus suppressing average labor productivity growth below its previous trend.²⁹

Additionally, DB pensions offer additional productivity benefits to employers by influencing employees' decisions on when to retire. DB pensions can encourage "efficient retirement," such that employees withdraw from the labor force when their productivity decreases. Lazear, for instance, argues that DB pensions can function similarly to severance pay in encouraging retirement as employees age and their productivity starts to level off or even decrease.³⁰ Nalebluff and Zeckhauser studied the effect that DB pensions have on individuals' retirement decisions, and found that the features of most U.S. DB pensions can be designed to facilitate appropriate and optimal retirement decisions among employees.³¹ Luchak, Pohler, and Gellatly found that among employees with a DB pension, those with higher levels of affective commitment to their employer planned to retire, on average, about two years later than those with low levels of affective commitment.³² DB pensions hence set an early retirement age in order to target the average age when employee productivity starts to soften.

The ability of DB pensions to encourage efficient retirement is especially crucial during financial and economic crises.³³ Employers can reasonably predict whether employees will leave during a crisis based on their DB pension. Employers with DC plans, in comparison, encounter a phenomenon known as job lock, whereby employees become more likely to stay on the job as a financial crisis and economic recession unfolds. Financial markets generally decline in tandem with deteriorating economic conditions. Employees who may have been inclined to consider retirement before a crisis may decide to work longer to make up for losses in their DC plans.

Financial market losses also systematically correlate with high unemployment rates; thus, finding another job becomes more difficult at the same time that labor demand decreases. Employees who want to work longer in this circumstance will have to try to stay with their existing employer.³⁴ This problem is further exacerbated by the fact that employers tend to lower contributions to their employees' DC accounts during an economic downturn.³⁵ In a 2008 survey of recent retirees, 76% reported that their ability to afford retirement was an extremely or very important factor in their decision to retire; and 81% of those with a DB pension reported that the pension itself either was extremely or very important in determining retirement affordability.³⁶ This also implies an opposite logic during an economic expansion, when skilled employees become more likely to retire exactly when employers need them. DC plans thus can exacerbate labor market swings while pensions tend to generate more stable employment relations over the course of the business cycle. Employers consequently may incur larger employment-related costs to manage their workforce with DC accounts than with DB pensions.

The Role of DB Pensions in the Public Sector

Many of these effects of DB pensions show up especially in the public sector, where DB pensions are the primary and occasionally the only retirement system available to public employees. Boston College research found that public employees largely prefer DB pensions to other forms of retirement income.³⁷ Similarly, public employees consistently expressed strong preferences in favor of DB pensions according to national public opinion polls.³⁸ Several states offer employees a choice between DB pensions and DC plans. Olleman and Boivie found that when public employees are given such a choice, they overwhelmingly choose the DB pension.

For example, in 2010, a mere 4% of public employees in Ohio elected the DC plan over the DB pension when offered, a result that has been consistent since the option was put in place in 2004. Additionally, between 2002 and 2011, 68% of Washington state employees chose an all-DB pension over the default of a combined DB pension and DC plan.³⁹ Finally, West Virginia presented a unique case in which the Teachers Retirement System (TRS), a DB pension, was frozen—new hires were no longer admitted into the plan—in 1991.⁴⁰ All newly hired teachers after 1991 were put into the Teachers Defined Contribution Retirement System (TDC). The TDC was closed in 2005 by the state and all newly hired teachers were switched back into TRS. The teachers who had been enrolled in the TDC between 1991 and 2005 were given the option of choosing which plan they would prefer. On July 1, 2008, the state legislature certified a teachers' vote in which 78% of teachers voted in favor of having the option to switch back into the DB pension. The Charleston Gazette reports that an overwhelming number of younger teachers, more than 75%, decided to make the switch back to the TRS.⁴¹

DB pensions have proven to be substantial recruitment and retention tools for public employers. Gabriel, Roeder, Smith, and Company (GRS) found that DB pensions boosted state and local governments' ability to recruit highly qualified and skilled employees and to retain them throughout their career.⁴²

Public employment is indeed more stable than employment in the private sector. Greenfield found that layoffs and resignations in the private sector were three to four times higher than in the public sector.⁴³ Public employees tend to be more attached than private sector employees to their jobs. Munnell, Haverstick, and Soto found that the tenure of public employees increased between 1973 and 2004, while that of private sector employees decreased. The median job tenure was 7.7 years for public employees by 2004 compared to 5.0 years for private employees. Additionally, public sector employees tend to be older than private sector employees.⁴⁴

The longer tenure tends to go along with other employee features that likely raise public employee productivity. Public employees, for instance, are more likely than private sector employees to value their work, suggesting that DB pensions may serve as a device for employers to select employees who are a good fit for them. Houston showed that public employees are more likely than private employees to place a higher value on the intrinsic reward of important work that provides a feeling of accomplishment. Private sector employees, in comparison, place a higher value on pay and on working fewer hours.⁴⁵ Wright similarly found that public employees valued their work more than private sector employees because of the inherent nature of public sector organizations that address complex social functions—supplying goods and services that cannot necessarily be bought and sold in a private market. Those who enter public service may place a higher value than their private sector counterparts on carrying out acts for the good of their community and the resulting internal satisfaction that these acts provide.⁴⁶ DB pensions again may serve as a tool for employers to select these employees.

Public employees tend to invest more in their skills than private sector employees, possibly because of the long-term economic commitment function of DB pensions. DB pensions may provide incentives for highly

skilled employees like researchers, computer programmers, and lawyers to stick with public service instead of seeking better-paid positions in the private sector. Moreover, because many occupations in the public sector have few private sector counterparts (e.g. public safety, criminal justice), DB pensions provide incentives for employees to seek nontransferable skills and apply them over long periods to public service careers. In the teaching profession, for example, public school teachers who work under strict certification requirements also tend to turn over far less frequently than their private sector counterparts.⁴⁷ DB pensions can thus raise public sector efficiency.

A move to DC accounts from DB pensions therefore could make it more difficult for public human resource managers to recruit, retain, and manage skilled employees. The Center for State and Local Government Excellence surveyed government hiring managers in 2011, and found strong indications that even in the weak labor market that prevailed at that time, state and local government employers struggled to fill vacancies for highly skilled occupations such as engineering, environmental sciences, information technology, and health care professionals.⁴⁸ These difficulties likely stem from a persistent pay gap between public and private employment.⁴⁹ Compensation is necessarily different since governments do not have the same tools at their disposal as private employers, such as performance bonuses, stock options, or other profit-sharing plans.⁵⁰ DB pensions offer public employers a way to remain competitive in the market for skilled employees. State and local governments without DB pensions may find it even more difficult to attract skilled employees.

In a cost-benefit analysis of a switch from a DB pension to a DC plan for the state of New Mexico, the actuarial consulting firm GRS concluded that such a change would either result in a decrease in retirement benefits, an increase in total costs, or some combination of these. In turn, the switch could severely hinder state and local governments' ability to recruit and retain a qualified workforce. The result could be higher turnover, labor shortages, greater training costs due to higher turnover, and lower productivity caused by a larger share of inexperienced employees than would be the case under a DB pension.⁵¹

The Economics and Politics of Public Pensions After the Great Recession

The literature suggests that DB pensions efficiently meet the labor and employment needs of public sector employers. However, states and localities have had to address a variety of financial challenges in the wake of the financial and economic crisis of 2007–2009, including increased demands from public DB pensions. This debate was influenced by states' and localities' fiscal constraints, and also by the politics surrounding public employees, their pay, and their benefits.

States Have Faced Considerable Budgetary Challenges

States faced large general budgetary constraints in the wake of the financial crisis; even after 2009, the economy remained relatively weak, and states continued to struggle. The economic downturn had a negative effect on state revenues. General revenue, which states collect from income, sales, and property taxes, declined by \$54 billion and \$70 billion in 2009 and 2010, respectively.⁵² In the first quarter of 2012, state revenues remained 5.5% below pre-recession levels.⁵³ The Center on Budget and Policy Priorities (CBPP) found that states had a cumulative budget gap of \$191 billion, \$130 billion, and \$107 billion, respectively, in their 2010–2012 budgets. States cut \$425 billion from their budgets between December 2007 and January 2011, followed by even more severe cuts for 2012.⁵⁴ In fiscal year 2013, the budget gap totaled \$55 billion across 33 states, which they have managed to close.⁵⁵ States implemented various changes to balance their budgets through this period, including furloughs and layoffs for state employees.⁵⁶

The budgetary constraints coincided with increasing demands from public DB pension plans. The stock market decline of 2008 and 2009 hit all investors, and public pension plans were not immune. The aggregate funding ratio of the nation's largest public pension plans fell from 85% in 2008 to 77% in 2010.⁵⁷ The funding ratio of public pension plans likely decreased further after 2009 because financial market losses can linger on the books of DB pension plans using an actuarial practice called asset smoothing. (It should be noted that, starting in 2014, many public DB pensions will report a lower funded level—even if their ratio of assets to liabilities has not changed—due to updated accounting guidelines set by the Governmental Accounting Standards Board.⁵⁸) To put these numbers in perspective, the U.S. Government Accountability Office concluded that most experts believe a funding level of 80% or more—the ratio of a DB pension plan's assets relative to its liabilities, or promised benefits—is adequate for most public DB pension plans.⁵⁹

Researchers at Boston College estimate that public pension plans held 75% of their future promised benefits in assets in 2011 and that, under the most likely investment market scenario, this ratio could rebound to 82% by 2015.⁶⁰ Others put public employee underfunding at higher levels, based on more adverse economic assumptions.⁶¹

The additional contributions necessary to cover the estimated underfunding tend to be nontrivial but manageable. The Center for Retirement Research estimated that an additional 2.2% of payroll over 30 years will cover the estimated underfunding.⁶² Munnell and colleagues showed that while there is substantial variation in funding and contribution levels among states, the required contributions to address the underfunding remain manageable for most states.⁶³

States began addressing pension underfunding in the middle of several years of severe budget shortfalls. Between 2009 and July 2012, for example, 44 states either increased contributions or lowered benefits under the DB pensions,⁶⁴ as we discuss in greater detail below.

The Political Environment for Public Pension Changes

The political environment presents additional challenges to public DB pensions. At the same time that states are trying to manage the existing pension underfunding, they are facing pressures from some groups to change retirement benefits from DB pensions to DC plans or cash balance plans. There is evidence to suggest that these challenges are often more based in ideology than financial concern.

National and state interest groups have become key players challenging the continuation of public DB pensions in recent decades, with the primary goal of terminating state and local DB pensions. Almeida, Kenneally, and Madland found that these groups often did not consider the economic efficiency of DB pensions and instead based their challenges on ideological positions of general opposition to public social insurance arrangements.⁶⁵ Madland concludes that ideological orientation, rather than party affiliation, leads individuals to support DC plans over DB pensions,⁶⁶ while Munnell and colleagues demonstrated that states with Republican governorships and Republican-dominated legislatures were more likely to introduce DC plans in addition to or instead of DB pensions.⁶⁷

Although many of these groups believe that there will be cost savings associated with such a switch, public employees will likely receive some form of alternative compensation as a replacement for the DB pension. For example, in 2005 the state of Alaska froze its DB pension plan, but new hires are still offered DC accounts in lieu of the old DB pension.⁶⁸

In addition, several anti-tax movements have gained increased popularity nationwide, according to the *New York Times*, which could further increase opposition to public DB pensions.⁶⁹

The “tea party” movement—a comparatively large, but disparate, anti-tax movement—has typically called for drastic cuts in public spending. It lists among its beliefs that “government must be downsized,” “reduce[d] personal income taxes [are] a must,” and “intrusive government [must be] stopped.”⁷⁰ A 2010 Washington Post survey found that almost half of tea party members listed public operations as their primary concern.⁷¹ Regional tea party groups consequently have targeted local issues, including public pensions. A spokesman for the York (Pennsylvania) 912 Patriots, told the Wall Street Journal in 2010, “A lot of our members are upset that we have to pay for raises and fund pensions for teachers.” And, the Troy (Michigan) Area Tea Party has proposed to cut municipal employees’ compensation—pay and benefits—to address the city’s budget challenges.⁷²

Other anti-tax groups have championed the cause of lower benefits in the public sector. The Free Enterprise Nation, a self-proclaimed “voice of the private sector,” took out full-page advertisements in 2009 in national media outlets like the Wall Street Journal specifically criticizing public pension benefits as overly generous compared to private sector retirement benefits.⁷³ California Pension Reform, a state-level group specifically targeting DB pensions in California, published an online database of individual retired Californian public employees and their annual pension benefits in 2009, and they continue to update the site.⁷⁴

The agenda pursued by these groups is perhaps best summed up by Americans for Tax Reform’s (ATR) Grover Norquist. He said of public DB pension plans in 2001 that “just 115 people control \$1 trillion in these funds. We want to take that power and destroy it.”⁷⁵ Norquist and others attacking public DB pensions actively planned and supported state-by-state campaigns to dismantle public DB pensions from 2005 through 2011. For example, ATR was a supporter of former California Governor Schwarzenegger’s 2005 push to move that state’s public employees into a DC plan.⁷⁶ In 2010 Norquist issued a press statement urging federal legislation that would “unburden” employees with DB pensions by replacing these benefits with DC plans.⁷⁷ ATR is also an official member of Floridians for Sustainable Pensions, a coalition whose stated goal is to replace public employee DB pensions with DC plans.⁷⁸

Alongside tea party growth, there is also some evidence at the federal and state levels that the results of the 2010 elections raised political pressures at the state level to alter retirement benefits. The Republican Party gained 61 seats in the U.S. House of Representatives and 6 seats in the U.S. Senate, 7 governorships, and achieved more majorities in state legislatures than any time since 1928.⁷⁹ Many analysts attributed the Republican Party’s successes in the 2010 election to the combination of the ideological motivation of the tea party and other anti-tax groups with Republican Party affiliation.⁸⁰

In state capitols, pressure to alter retirement benefits from DB pensions to alternative benefits heightened. Stateline reported, for example, that six newly-elected Republican governors came out in favor of moving all public employees out of DB pension plans and into DC retirement accounts after their election.⁸¹ This agenda for advancing alternative benefits also picked up support from some Democrat officials, such as Rhode Island State Treasurer Gina Raimondo. Shortly after taking office in 2011, she steered pension proposals along a tight timeline that culminated in changes that the Wall Street Journal described as “the boldest pension reform of the last decade.”⁸²

In addition to these political challenges, public DB pensions for teachers in particular have come under attack from some education policy experts who have proposed to replace DB pensions for teachers with alternative retirement benefits.

Robert M. Costrell, an education economist at the University of Arkansas, and Michael Podgursky, an education economist at the University of Missouri at Columbia, have published several papers since 2008.⁸³ They assert that DB pensions create adverse economic incentives for ineffective teachers to stay on the job too long and for effective teachers to leave earlier than they would under other retirement systems. It is important

to note that the opposite logic also holds—that DB pensions create incentives for effective teachers to stay longer on the job than they otherwise would. Also, ineffective teachers would leave earlier—typically upon reaching early retirement age—than they otherwise would.⁸⁴ In fact, DB pensions may help to recruit high quality teachers, and to retain highly productive teachers longer, as compared with DC plans.⁸⁵

The National Council on Teacher Quality,⁸⁶ an education reform advocacy group, similarly proposed their preferred ways to retain effective teachers. Their recommendations include replacing DB pensions with DC or cash balance plans for public school teachers. NCTQ based its recommendation on the assertion that young teachers do not appreciate DB pensions. However, Almeida and Boivie reported that young employees value DB pensions as much, if not more, than their older peers. That teachers in particular highly value DB pensions is borne out by actual experience in states where teachers were given the option of choosing their retirement plan, and overwhelmingly chose the DB pension.⁸⁷

The momentum at the state level to change public sector retirement benefits also garnered legislative proposals at the federal level in U.S. House of Representatives. Representatives Devin Nunes (R-CA) and Darrell Issa (R-CA) introduced the Public Employee Pension Transparency Act of 2010. The act “provides enhanced transparency for state and local pensions, [and] also establishes a clear federal prohibition on any future public pension bailouts by the federal government.”⁸⁸ Analyses of the legislation found that the disclosure requirements of the bill would present a distorted picture of public pension funding; these distortions would confuse policymakers and would offer a more negative view of public DB pensions. Finally, this confusion could well lead to abandonment of DB pensions in the public sector.⁸⁹

In September 2012, Senator Jim DeMint (R-SC) joined a “No Pension Bailout” campaign sponsored by the conservative-leaning Illinois Policy Institute.⁹⁰ The campaign’s stated goal is to “prevent the federal government from bailing out” Illinois’ DB pension liabilities. Yet, the backers themselves admit that no legislator in Illinois or elsewhere has requested such a bailout.⁹¹

Government Responses to Fiscal and Political Challenges

The environment facing public DB pensions has been financially and politically challenging. Many states have taken steps to change the retirement benefits for their employees, even as they continue to make progress toward funding their pensions.

The Pew Center on the States estimated the cumulative unfunded public pension liability was \$757 billion in 2010.⁹² Munnell and colleagues projected more current funding levels for the 126 state and local plans and estimated that the aggregate funded level fell to 75% in 2011.⁹³ However, by the first quarter of 2012, state and local DB pensions also saw their cumulative assets increase to \$3 trillion, a gain of 28% since June 2009,⁹⁴ largely due to investment gains; the median investment return for large public pension plans in 2010 was 13.1%.⁹⁵

While facing the previously mentioned short-term cash flow deficit in revenues and higher recommended contributions to fund long-term pension obligations, states in aggregate still contributed \$73 billion to pension trusts in 2009, an increase of \$1 billion from 2008.⁹⁶ Public plan sponsors paid an average of 88% of the annual required contribution (ARC) in 2010. While the percentage of plans receiving 90% or more of their ARC has fallen since 2000, six in ten plans received 90% or more of their ARC in 2010.⁹⁷ Since 2001 in fact, a substantial portion of ARCs were consistently paid, despite two economic downturns; on average, 92% of ARCs were paid between 2001 and 2010.⁹⁸

In terms of changing retirement benefits, the uniqueness in plan design, benefit levels including Social Security coverage, funding levels, and pension plan governance may dictate different responses across states and localities.⁹⁹ Many states, though, have implemented some form of lower benefits and higher contributions for their DB pension plans since 2001.¹⁰⁰ According to the National Conference on State Legislatures, the actions taken by states to ensure their pensions' long-term sustainability have been quite substantive and varied—and many reforms began well before the stock market drop in 2008.¹⁰¹ Reforms have included increased employee contribution rates, reduced benefits for new employees, and greater restrictions on early retirement and on retirees returning to service.

In all, 8 states enacted significant pension reforms in 2012, 32 states enacted reforms in 2011, and 21 did in 2010.¹⁰² Most 2012 reforms took the form of new DB pension plan tiers with lower benefits moving forward. For example, in South Carolina, age and service requirements are increased, future cost-of-living increases are capped, the period for final average salary calculation is increased, and a deferred retirement option is eliminated. Wyoming's new benefit tier includes higher age and service requirements, a longer period for calculation of final average salary, and a lower benefit multiplier. Similar types of pension reforms were enacted in New York and Alabama, along with additional unique provisions. New York's new tier includes employee contribution rates that are progressive based on annual salary. In Alabama, while benefits were reduced in several ways, employee contribution rates were actually reduced.¹⁰³

Between 2009 and 2011, 28 states increased employee contribution rates; 7 states increased employee contributions on new hires only, and 21 states increased contributions on at least some current members as well.¹⁰⁴ Missouri, Utah, Virginia, and Wyoming had previously been noncontributory, but they required employee contributions for the first time after the crisis. And 28 states have increased the retirement age and service requirements for full benefits between 2009 and 2011.¹⁰⁵ In 2010 and 2011 a total of 18 states reduced post-retirement benefit increases, 13 imposed a longer period for calculation of final average salary, and 12 increased vesting requirements, delaying the period until public employees may receive any benefits.¹⁰⁶

Thus continues a trend as 29 states enacted major retirement benefit changes between 2005 and 2009,¹⁰⁷ primarily to DB pensions. In that timeframe, 12 states increased employee contributions to their pension funds; 11 changed the benefit multiplier or final average pay calculation; 10 increased the age and service requirements; 7 implemented anti-spiking provisions; 9 changed post-retirement increases; and 6 increased the vesting time period.¹⁰⁸

Benefits promised under public DB plans are considered highly protected because under the laws of most states, the sponsor cannot close down the plan for current participants. In many states, employees hired under a particular benefit have the right to continue earning that benefit for the length of their employment.¹⁰⁹ The legal and regulatory protections of public pension benefits, however, vary widely by state.¹¹⁰ For example, although 21 states have successfully increased current employees' pension contributions, three other states that had attempted to increase employee contributions rates saw these provisions subsequently overturned in court.¹¹¹

For that reason, it has been considered much easier to reduce the benefits of newly hired workers than to do so for current employees or active retirees; however, pension reforms of 2010 through 2012 have proven otherwise. For example, the increases in employee contribution rates noted above, while not a direct benefit cut, do represent a decrease in total compensation to fund the pension benefit—and 21 states to date have successfully done this. Additionally, legislation was adopted in Colorado, South Carolina, and Minnesota to reduce cost of living adjustments for current retirees.¹¹² Although states loosened constitutional protections moving forward in this way, there is no evidence that they have ever defaulted on their past pension obligations to employees.

A small number of states, such as Michigan, Rhode Island, and Utah, moved to restructure retirement benefits entirely. The Michigan School Employees Retirement System replaced the DB pension with a hybrid plan for all new employees hired after July 2010. The hybrid plan includes both a DB pension and a DC plan. The DB portion includes higher age and service requirements, a lower final average salary calculation, and a lower pension benefit than the previous DB pension system. Also, the DB component will not include any post-retirement cost of living adjustments (COLA).¹¹³ Employer contribution rates to DC plans will be negotiable within limits by individual school districts. Employer contributions vest after four years, and participants have an opt-out option—that is, they do not have to contribute to their DC plan.¹¹⁴

Employer costs under Michigan's hybrid plan are expected to decline, because the hybrid plan offers a less generous benefit than the DB pension.¹¹⁵ Initial analyses of Michigan's switch estimated that the hybrid will save the public school system between \$2 and \$4 million in 2011 and between \$200 and \$400 million over ten years.¹¹⁶ Projections were that as many as 17,000 newly hired teachers would be covered under the new hybrid plan by the end of 2011; however, due to an early retirement incentive that was offered to older teachers,¹¹⁷ as of February 2011, just over 11,600 teachers were yet covered by the hybrid plan.¹¹⁸ Despite the anticipated cost savings, in September 2012 additional legislation was passed that gives employees a choice between paying a higher contribution rate in the new hybrid plan, or switching to a new DC-only plan.¹¹⁹ Yet later that same month, a 2011 law that mandated additional employee contributions to the Michigan state workers' pension was found unconstitutional by the state court, as it represented a reduction in employee pay, which is beyond the authority of the legislature.¹²⁰ Thus, it remains to be seen how these provisions will fare in the future. Meanwhile, as the new hybrid plan remains in effect in years to come, the full effects of the switch on both employer costs and recruitment and retention concerns can be more fully examined.

In Utah, employees hired after January 2011 will have an option of either a hybrid plan, with both a DB pension and a DC plan, or only a DC plan. Employers will contribute 10% of salary for the DB pension of the hybrid plan, and employees will have to make up the difference if this contribution is insufficient to fully fund the benefits. The excess will be deposited into employees' DC accounts, however, if the DB pension is overfunded. Employees can also voluntarily contribute more to their DC plan under the hybrid plan. Alternatively, employers will contribute 10% of salary to the employees' DC plan, if they choose the DC-only plan.¹²¹

The Utah design gives employees a unique decision: to get the advantages of a DB pension—including a guaranteed benefit for life, professional investment management, and the larger benefits provided by longevity pooling—they must also take on the investment risk. If the employee chooses the DC plan, the employer will contribute 10% of pay to the DC account. If the employee chooses the hybrid plan, the employer will contribute 10% of pay. Thus, regardless of each employee's decision and investment returns, the employer contribution remains a flat 10% of pay.¹²²

Rhode Island and Virginia recently adopted hybrid plans as well, while Louisiana and Kansas have adopted cash balance designs. Rhode Island passed legislation in 2011 to replace its DB pension with a hybrid plan for all members, except judges and public safety, in 2012. The Virginia hybrid plan will only be for new members, and will go into effect in January 2014. The new Kansas cash balance plan will only be for new members as of January 2015. Similarly, the Louisiana plan will only be for new members, effective July 2013; it will be mandatory for non-hazardous state employees and higher education members, but optional for other educational employees.¹²³

This survey of the widespread efforts that states undertook to address the financial challenges and to operate within the confines of emerging political pressures shows that the vast majority of states decided to keep their DB pensions as the only or at least one of the primary retirement benefits for their employees. Although

many states and municipalities have conducted feasibility studies of switching from the DB pension to a DC plan, those studies found that the move would save little to no money in the long term, and could actually increase retirement plan costs in the near term.¹²⁴

The Segal Group, an actuarial consulting firm, conducted individual feasibility studies for the city of Los Angeles and the state of Nevada in 2010. In Los Angeles, Segal found that a lower DB benefit would bring significantly more cost savings than would a DC or hybrid switch;¹²⁵ in Nevada, Segal concluded that if the DB pension were frozen in favor of a DC plan, DB costs would increase dramatically.¹²⁶ In 2009, the Kansas Public Employee Retirement System found that of three different DC options, none would save money compared with the baseline DB pension—and in fact, one would be more expensive.¹²⁷ Perhaps not surprisingly, none of these states or municipalities opted in favor of the DC switch. This decision to stay with DB pensions may well reflect an employer appreciation for the efficiency of DB pensions, particularly in light of the increasing political pressures that states have faced to change their retirement systems.

Other Rationales for Changing Retirement Benefits

Labor management arguments are not the only ones surrounding public employee retirement benefits. Two additional arguments that have been made in favor of switching from DB pensions to DC plans deserve further consideration. It has been argued that DC plans are fairer than DB pensions to a more mobile workforce¹²⁸ and that the demands of DC plans are easier to manage than DB pensions for employers.¹²⁹

The assertion that DC plans are fairer than DB pensions depends on a limited definition of fairness. Public employees who leave public service quickly presumably lose some of their compensation because they are not vested in a DB pension, which makes the entire DB pension, in this view, unfair to short-term employees because it creates an annual wealth distribution that favors long-term employees over shorter-term ones.

The opposite conclusion emerges when a lifetime wealth distribution is considered, rather than an annual wealth effect. Since DB pensions are primarily retirement benefits, such a longer-term view is appropriate. Porell and Oakley found that DB pensions in fact reduced the chance of experiencing economic hardships in retirement, particularly for groups of employees such as nonwhites, who are typically disadvantaged in their wealth distribution.¹³⁰ DB pensions, in other words, help somewhat to equalize retirement income inequities that otherwise would exist. Similarly, Wolff showed that DB pensions equalized retirement wealth by race, education, and marital status, but that this effect has worn off over time as DC plans increasingly took the place of DB pensions in the private sector.¹³¹ Thus, looking at retirement wealth effects over a lifetime, DB pensions shows more of an equalizing effect than DC plans.

The fairness argument also overstates its case. Most public DB pension systems are contributory—that is, employees contribute a share of their earnings to help fund the benefit.¹³² Employees are generally allowed to withdraw those funds, plus some nominal interest earned on the funds, when they leave service, although the employer contributions stay with the DB pension plan.¹³³ In addition, shorter vesting periods could overcome any potential adverse distributional effects because short-term employees would more quickly gain a right to retirement benefits. However, shortening vesting periods would have to be weighed against the potential adverse consequences for labor-management practices, because shorter vesting could lead to increased turnover. The bottom line is that to the extent that DB pensions have any adverse short-run distributional effects, they can easily be addressed within the DB context.

The second argument in favor of DC plans as replacement to DB pensions is more straightforward. The costs of DC plans are by definition more predictable because the employer promises to contribute only a fixed share of earnings annually—a contemporaneous increase in compensation—compared to a promised amount of benefits in the future under a DB pension, which can carry uncertain employer contributions in the present.

There are ways to make the employer costs of DB pensions more predictable. One policy tool would be to set a contribution floor so that employer contributions cannot drop during good economic times when asset values are high due to good financial market performance.¹³⁴ This would necessitate that policymakers set a maximum funding ratio since states could otherwise potentially contribute more than necessary, resulting in too many public funds being tied up in public DB pension plans. Weller and Baker suggested a funding ratio of 120% for private sector plans.¹³⁵ States could also change the actuarial valuation of their DB pension plans, such that their funding ratios would fluctuate less and employers would have to contribute more during good economic times and less during bad economic times than is currently the case.¹³⁶ Thus, states that are worried about the unpredictability of the employer contribution to DB pension plans can take reasonable steps to make the contributions more predictable.

Conclusion

The financial crisis of 2008–2009 presented financial challenges to state and local DB pensions. They were hurt in the stock market crash because large shares of DB pension assets are typically invested in the stock market. This led to a drop in plans' funded ratios and an increase in governments' unfunded pension liabilities and costs.

Some observers have argued that states should alter their retirement benefits by switching from DB pension plans to DC or cash balance plans. This paper reviewed the evidence on the labor relations effects of existing DB pension plans to see what the likely effects of such a switch would be. The literature and the empirical evidence are unambiguous on a number of key effects.

First, public employers would attract a different labor force if they switched retirement benefits away from DB pensions. Public employees would become less committed to their employers and thus invest less in nontransferable skills that are critical to effective government.

Second, employee turnover would increase under alternative benefits. Alternative benefits no longer defer compensation into the future and thus offer fewer economic incentives for employees to stay with public employers.

Third, public employers would face higher costs, both as a result of ending the existing DB pensions and because of higher investment and administrative costs for alternative retirement plans.

The value of DB pensions in the public sector is probably best illustrated by the fact that when faced with a benefits choice, employers and employees overwhelmingly choose to stay with DB pensions rather than to move to alternative benefits. The majority of states have undergone revisions to their DB pensions between 2007 and 2012—some even adding DC account features—but the overwhelming majority have maintained the DB pension model for its employees.

DB pension plans have a track record of simultaneously meeting the goals of employers due to their recruitment and retention effects, and the goals of employees due to the economic security they offer.

The Great Recession has presented some funding challenges to public pensions. States and localities are willing to address these challenges so that they can effectively compete for skilled employees in the future.

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