How to Dig an Even Deeper Pension Hole

Ending Defined Benefit Plans Could Saddle New Jersey Taxpayers with $42 Billion in Transition Costs

By Stephen Herzenberg
Executive Director, Keystone Research Center

No one disputes that New Jersey’s public pension system is alarmingly underfunded. Gov. Chris Christie’s own pension review task force described the situation as “dire” in late September, in a preliminary report that will be followed by recommendations for making public employee retirement benefits more affordable (for the state) and sustainable (for taxpayers and retirees).

One option being considered is closing New Jersey’s defined benefit (DB) pension plans and enrolling new employees in 401(k)-type defined contribution (DC) plans.

Both Gov. Christie and state Treasurer Andrew Sidamon-Eristoff publicly advocated this type of change this spring. The governor said “the only way” to fix New Jersey’s budget crisis would be “to stop the insanity of a defined benefit pension system that we cannot afford.”¹ Meanwhile, the treasurer told the Senate and Assembly budget committees that “there are ways to phase in” the transition from a DB system to a 401(k)-style system that could convert into an annuity based upon how much is in the account at retirement.²

But phasing out the state’s traditional pension plans and replacing them with 401(k)-type accounts would:

• Burden taxpayers with transition costs currently estimated at $42 billion
• Fail to reduce the state’s unfunded pension liability

In addition, moving employees from DB to DC plans:

• Has failed in three states that have tried it
• Was rejected by 13 other states after research concluded that the change would hurt taxpayers and pension recipients

There is no flaw in the basic design of New Jersey’s defined benefit pension plans, as long as these are managed well. Nor are the Garden State’s pensions, which average about $26,000 per year per retiree, overly generous. New Jersey’s pension system is seriously underfunded primarily because the state has persistently failed to make required contributions. Since 2000,
New Jersey has ranked last among the 50 states in actual pension contributions made vs. the amount actuaries say should have been made. Continuing this shortsighted tradition of underfunding the system, Gov. Christie shorted the pension funds by nearly two-thirds in the current budget cycle when he failed to pay nearly $2.5 billion owed.

In the face of its multi-billion-dollar unfunded pension liabilities, New Jersey would be ill-advised to switch to a transparently inferior retirement plan design such as 401(k)-style accounts. In fact, high investment returns combined with low costs make DB pensions the most cost-effective retirement plans over the long term, which benefits taxpayers and public-sector retirees.

Requiring higher contributions to achieve lower retirement benefits and incurring the high transition cost of switching to DC accounts would exacerbate New Jersey’s already serious pension liabilities. Instead, the state should focus on improving how it manages its DB plans, starting with complying with the 2011 law (“Chapter 78”) requiring the state to phase-in full funding of these plans.

**Defined Benefit & Defined Contribution Retirement Plans: The Basics**

Much of the recent debate about public pensions centers on a choice between two basic retirement plan designs. Defined benefit (DB) pensions, common in the private as well as the public sector until the 1980s and 1990s, are so called because the benefit that the employee will receive is specified – defined – up front based on the employee’s years of service and final salary (usually the average salary over the last several years before retirement). As elaborated below, this type of pension plan has a long track record of delivering high returns at low cost. With many DB plans, the employer bears all or most of the risk associated with financial market fluctuations: if investment returns fall below expectations, the employer makes up the shortfall in contributions. (Some DB plans increase employee contributions or reduce benefits if financial markets disappoint, which means that employees share the market risk.) However, even when the state bears all the financial market risk, these plans have proved to be a good deal for taxpayers over the long term because average returns over 30-year or longer periods are high.

Defined contribution (DC) retirement savings plans – also known as “401(k)-type” individual retirement accounts – do not guarantee any specific benefit. Instead, they specify the amount that employers and employees put into each employee’s account each year. In standard DC plans, employees bear all the financial market risk. If financial markets plunge, as they did in 2007 to 2009, individuals approaching retirement may find they no longer have sufficient funds to leave their jobs. DC plans have also failed many private-sector workers because employers (and employees) put too little money into them. In addition, as explained in more detail below, 401(k)-type plans deliver lower returns and have higher costs than DB plans. (Appendix A contains an annotated bibliography on how 401(k) retirement plans have failed private-sector workers.)
**Why It Could Cost New Jersey $42 Billion to Switch Plans**

Many states have considered, but rejected, switching from DB pensions to DC pensions – with good reason. A crucial problem in making such a switch is the cost of transitioning out of the traditional pension system and into a new system. Numerous studies suggest that such transitions reduce the rate of investment returns on the current pension plans’ assets, which increases the unfunded liabilities and can saddle taxpayers with billions in additional costs.

What would it cost New Jersey taxpayers to close the state’s DB pension plans? Absent complete actuarial studies that should be conducted prior to any legislative consideration of a possible change, a reliable way to gauge transition costs is to examine studies that have assessed pension plans similar to New Jersey’s. Fortunately, studies of the transition costs of closing DB pension plans with characteristics very similar to New Jersey’s were conducted just last year in Pennsylvania.

The main (three) New Jersey and (two) Pennsylvania plans both have:

- Total assets of $84 billion
- Similar funded ratios: 63 percent in New Jersey and 64 percent in Pennsylvania
- Similar unfunded liabilities: about $50 billion in New Jersey and $47 billion in Pennsylvania
- Similar average annual benefits
- Similar numbers of retired members: 291,820 in New Jersey and 319,076 in Pennsylvania

Actuaries in Pennsylvania estimated the cost of moving from a DB to a DC pension system at $42 billion. New Jersey could expect to incur similar costs, based on the similarities of the two states’ current plans.

The reasons for high transition costs are straightforward. Pension fund managers rely on investment returns to pay for two-thirds of retirement benefits – twice the amount covered by employer and employee contributions combined. But closing the DB plans to new employees cuts off the flow of long-term investment funds from young workers, thus reducing the overall rate of return. Achieving less robust returns would drive up the amount that public employers – hence taxpayers – must pay to cover current pension commitments.

Investment returns decline when new employees are switched out of DB plans because the loss of new enrollees forces two key changes in investment strategy as more and more plan participants reach retirement age.
A shorter investment horizon

Most DB plans have a balanced mix of young, middle-age and retired members. Plans with multi-aged investors allow managers to diversify their portfolios over a long investment horizon, investing in some high-risk, high-return investments (such as stocks or private equities), as well as some low-risk investments that have lower returns (such as bonds). In DB plans that no longer accept new employees, existing plan participants gradually age and the plans’ investment horizons shorten. As a result, investment managers must shift plan assets from higher-return to safer assets – just as individual investors approaching retirement shift savings away from risky assets to protect themselves against market drops shortly before they start to withdraw money. The shift of pension funds to lower-return assets reduces investment earnings. In New Jersey, lower investment earnings would force the state and other public employers to make additional contributions to cover benefits already promised to retiring employees.

A need for more liquid assets

Without new employees entering the pension system, an increasing percentage of DB recipients will age out and retire. As this happens, more and more of the funds remaining in the plans must be removed from non-liquid assets, such as private equities, and invested in liquid assets that are easy to convert to pension checks for retirees. This shift to more liquid assets will also lower the rate of return, increasing the taxpayer contributions needed to honor existing pension obligations.

Given the importance of investment earnings to growing pension assets over time, even their modest decline (e.g., one percentage point) can result in a large increase in the cost to taxpayers of meeting existing pension commitments. Studies in 13 states that have considered a switch to DC plans have reached an actuarial consensus that closing a DB plan lowers investment returns and increases unfunded liabilities (see Appendix B for more detail and complete references). These studies find that modifying DB pension plans to lower long-term costs and increase employee contributions – as New Jersey did in Chapter 78 – is a more cost-efficient way to reduce taxpayer costs and unfunded liabilities.5
Closing Defined Benefit Plans Hasn’t Worked in Other States

Three states have closed their defined benefit (DB) plans to new employees and put all new hires in 401(k)-type plans: West Virginia in 1991; Michigan for its state employees in 1997; and Alaska in 2006. In none of these states has this shift eliminated or reduced the state’s pension debt or worked well for public-sector retirees.

West Virginia

Fifteen years after adopting a 401(k)-type plan, West Virginia reversed course in 2006, reopening its DB plan to all new hires and allowing the members of the 401(k)-type plan to switch into the DB plan. Before the switch, the closed DB plan had plunged to 18 percent funded (in 2003). In addition, the average investment return for employees with individual accounts equaled 3.39 percent from 2001 to 2006 (a period including the dot.com bust), compared with 6.13 percent from the teachers’ DB retirement system. In addition, for five out of every six members over age 60 with individual accounts, the average account totaled $23,193. With many individual accounts not on track to generate adequate retirement income, the DC plan was perceived to be driving up taxpayer costs for means-tested public programs.

Michigan

Michigan began enrolling all new state employees in a 401(k)-type plan in 1997. Since then, the system’s unfunded liabilities have skyrocketed from $697 million in 1997 to $4.1 billion in 2010. This increase partly reflects inadequate employer contributions to pay for the unfunded liability.

Alaska

Alaska adopted a 401(k)-type plan for new state and public school employees effective in 2006. Though promoted as a way to reduce the employer contribution rates, these rates have increased. For state employees, the actuarially determined employer contribution rate required to pay off the unfunded liabilities increased from 12.4 percent of salary in 2006 to 22.5 percent in 2012. For teachers, this rate increased from 24.6 percent to 36 percent. Across the two plans, the unfunded liabilities associated with the closed DB plans have increased from $3.8 billion in 2006 to $7 billion in 2011 (the latest year for which data are available).

In both Michigan and Alaska, the worst may be yet to come. To date, much of the increase in the unfunded liabilities of these plans reflect the poor financial markets of 2007 to 2009. Over the next 15 years, however, first in Michigan then in Alaska, virtually all of the members of these plans will be retirees. As a result of the aging of these plans’ members, investment returns will likely erode further compared to those of open DB plans, resulting in a further increase in unfunded liabilities.
Less Bang for the Buck: Low Returns and High Fees Make 401(k)-Type Defined Contribution Retirement Plans Less Cost-Effective

Beyond the transition costs of switching to DC plans, research and experience show that DC retirement systems are much less efficient and cost-effective than DB pensions, because they:

- **Deliver lower investment returns.** This is partly because individuals making investment choices do not match the returns of investment experts who manage DB funds and partly because individuals need to invest more conservatively as they approach retirement.
- **Experience higher administrative costs.** This is due to the complexity of tracking the wide range of individual investment choices, higher marketing costs incurred as different retirement savings options seek to persuade employees to select them and higher public pension system educational costs as the pension system itself educates plan participants about investment options.
- **Assume higher financial management and trading fees.**
- **Incur higher costs because they do not pool “longevity risk.”** When individuals convert their accumulated savings to an “annuity” – a fixed payment until they die – the annuity provider issues a lower payment amount in case the individual outlives the expected average. Since DB plans do pool longevity risk – across tens of thousands of plan members – they know that plan participants, on average, will live exactly the expected number of years. Thus, annual benefit payments don’t need to be pared back.

A large body of evidence exists on the higher investment returns of DB compared to DC retirement plans. The National Institute on Retirement Security (NIRS) cites three sources that put the DB investment return advantage over DC accounts between 0.8 and 1.8 percentage points annually. The human resources firm Towers Watson has been analyzing asset-weighted performance differences between DB and DC plans since 1995. In a May 2013 brief, the firm reported that DB pension plans outperformed DC plans by 0.76 percentage points per year from 1995 to 2011. Among the largest plans, which included New Jersey’s plans, DB pensions outperformed DC plans by 0.99 percentage points.

The Center for Retirement Research at Boston College compared returns from 1988 to 2004 and found weighted by size, the average return for DB plans was one percentage point greater than DC plans.

In a small number of states, the state retirement system administers both DC and DB retirement options. In Florida, for example, Keystone Research Center found that the investment returns of the Florida DB pension have been 1.05 percentage points higher than returns of the aggregated individual accounts since the DC option was established in the early 2000s. A 1.05 percentage point annual difference may not sound like much, but it compounds. A typical worker might withdraw money 30 years later. After 30 years the higher DB returns translate into about one-third greater retirement benefits dollar for dollar.
Two recent NIRS studies seek to gauge the combined impact of all of the DC plan inefficiencies summarized in the bullets above. The studies conclude that DC retirement plans cost 45 percent to 85 percent more in employee and taxpayer contributions to deliver the same level of retirement security.

**New Jersey’s Pension Benefits Are Modest**

Part of the context for public pension debates is the inflated perception of the generosity of state pension benefits. In reality, New Jersey’s average annual public pension benefits are modest.

Pension benefits in New Jersey average about $26,000 across the main systems. Retired teachers and police and fire personnel each receive around $40,000 in benefits on average with state employees receiving $25,000 and local government employees receiving about $16,000. (Police and Fire System benefit levels have been adjusted to take account of the fact participants in this plan do not participate in Social Security.)

**New Jersey’s public pension benefits are lower than in most other states**

Partly as a result of the benefit cuts made in the Chapter 78 compromise – in exchange for funding commitments from the state now being violated – New Jersey now has among the lowest state pension benefits in the country. Comparing New Jersey’s two largest public pensions (for teachers and state/local employees) to plans covering similar employees in other states (i.e., plans for non-public safety personnel), we find.
• **A low multiplier.** In New Jersey, the multiplier for state/local employees and for teachers is now 1.67 percent, which means that somebody with 30 years of service receives a benefit equal to half (30 times 1.77 percent) of their final average salary in their first year of retirement. This is lower than the multiplier in most (62 percent) of 117 public pensions for non-public safety personnel and the same as the multiplier for 15 percent of the plans. Only a quarter (24 percent) of plans in other states have a lower multiplier than New Jersey.

• **High employee contributions.** In New Jersey’s pensions plans, public employees now contribute more than in slightly over half (52 percent) of the other public employee pension plans and the same as in another 8 percent of the comparison group plans.

• **No inflation protection.** As a result of the Chapter 78 changes, the inflation protection in New Jersey’s pensions is now suspended. By contrast, slightly more than two-thirds of other plans have some automatic inflation protection.

The ways in which New Jersey pensions are less generous than most other state pension plans reinforce one another, with a cumulative impact that makes New Jersey’s pensions among the least generous in the nation. For example, under the Chapter 78 pension rules a 30-year teacher who retires at 62 will receive a benefit initially that equals 46 percent of salary in his/her final year of service. The lack of inflation protection means that this person’s benefit will lose 36 percent of its buying power by the time the person is 80 (assuming 2.5 percent inflation). As a result, the pension benefit will have a buying power of about 30 percent of final year salary when the retired teacher is 80. Given that employees are paying 6.5 percent of their salary for this modest benefit eroded constantly by inflation, it is no surprise that the cost to taxpayers of pension benefits for post-2011 New Jersey public workers is very low.

Gov. Christie’s pension commission reports higher benefit levels because it reports the average for new retirees and it does not adjust Police and Fire benefits to take account of the fact that members do not participate in Social Security.

*New Jersey public employees earn slightly lower compensation than comparable private employees*

In addition to being modest in absolute terms and relative to other states, New Jersey’s pension benefits are not out of line with the private sector. While pension and health benefits are higher for public employees than comparable private employees (with similar levels of education and other characteristics that impact compensation), wages and salaries are lower. Total annual compensation is 4.1 percent lower for public than private employees, according to a 2010 study.
There’s a hidden cost of switching to 401(k)-style accounts

Since New Jersey public sector compensation is comparable to private sector, a switch to an inferior 401(k)-type retirement benefit could make public sector compensation non-competitive. For example, if it takes 50 percent more in contributions with DC accounts to achieve the same retirement benefit (a conservative estimate based on the NIRS research cited above), if we assume the same total contributions (which could be optimistic), benefits would be cut by a third. With this cut, the 80-year old teacher with 30 years of service who retired at age 62 would see benefits drop from 30 percent of the purchasing power of her final-year salary to 20 percent.

In sum, the modest existing pension benefits that today’s young teachers can look forward to would become a meager benefit for the teachers of the future, not a recipe for attracting and retaining great teachers for every classroom. With reduced benefits under a DC retirement system, New Jersey schools, emergency response services, and state agencies would likely have to increase salaries to attract and retain qualified teachers, police, fire fighters, and public health nurses.

How We Got Here: Underfunding New Jersey's Public Pensions

If New Jersey’s defined benefit (DB) pension plans have no inherent design flaw and are not overly generous, why are these pension plans so underfunded? It’s simple: the state has acted for much of the past 14 years as if these pensions were self-funding – free to the employer – and don’t require contributions from the state.

Gov. Christie’s pension commission recognized, and highlighted, the pension underfunding problem in its preliminary report, pointing to New Jersey as having the fourth lowest “funded level” (i.e., funded ratio) of any pension system in the nation. But, in some respects, the commission understated this problem. New Jersey has actually been the worst actor nationally – by a large margin – in terms of underfunding its pensions since 2000.

In 2001, all three of New Jersey’s main public pension plans were more than 100 percent funded. From 2000-12, however, the state contributed only 27 percent, on average, of the amount required to ensure long-term financial sustainability (the aggregate “annual required contribution,” or ARC).
Measured by the average percentage of ARC contributed to public pensions over most periods since 2000, New Jersey finishes dead last out of the 50 states. Between 2003 and 2012, New Jersey’s average contribution as a percent of ARC was far below any other state (Washington State was second-lowest, at 48 percent, compared to New Jersey’s 31 percent).²⁶

As a result of persistent dramatic underfunding, the funded ratio of New Jersey’s three largest pension plans dropped steadily throughout the 2000s, to about two thirds (66 percent) in 2009.
Fixing New Jersey’s Pensions Starts with Honoring Chapter 78

Faced by 2010 and 2011 with a growing unfunded pension liability, Gov. Christie and state lawmakers enacted Chapter 78. This law cut benefits in several ways:

- It lowered the multipliers for each pension plan.
- It extended from three to five years the number of years over which final average salary is computed (for the teacher and state/local worker pension plans).
- Most important, it suspended cost-of-living adjustments for retirees, including current retirees.27

In conjunction with benefit reductions and higher employee contributions, the state committed to ramp up pension contributions, over a seven-year period, to 100 percent of ARC. As recently as February, the Christie administration heralded the compromises of Chapter 78 and acknowledged the state’s “firm commitment” to meet its own funding obligations to retirees.28

In the first three state budgets following passage of Chapter 78, the state maintained its Chapter 78 commitments. Somewhat higher contributions as a share of ARC plus improving financial markets helped level off the rate of deterioration in the funded status of New Jersey’s pensions.

In 2014, however, the Christie administration turned its back on Chapter 78. In the 2014 budget, Gov. Christie withheld $900 million in required payments and, between the 2014 and 2015 budgets, he reduced pension contributions by 64 percent, a nearly $2.5 billion reduction of scheduled Chapter 78 levels. This lower amount covered only the ("normal") cost of additional pension benefits earned in the past 12 months. It eliminated all pension contributions to help pay down the unfunded liability. The governor also rejected two revenue sources that would have provided funds for pension payments and other needs: a temporary increase in the income tax rate on earnings over $1 million and a temporary surcharge on the corporate business tax.

In the lead up to the creation of his pension study commission, Gov. Christie began suggesting eliminating New Jersey’s traditional DB pensions for new employees, placing these new employees instead in their own DC savings accounts.

Switching public retirement away from DB plans into DC plans flies in the face of common sense and a mountain of evidence: university endowments, national foundations (e.g., the Ford and Gates Foundations) and the world’s wealthiest people grow their assets most rapidly by amassing a large pool of funds, achieving low costs with economies of scale and using professional managers to invest their assets.29 They would not think of chopping up their massive fund pools and having individuals without financial market expertise invest their assets only in the high-fee financial options available to individuals. Yet this is precisely the illogical shift that moving from DB to 401(k)-type saving accounts implies.
Large DB pension plans allow large numbers of middle-class families – and the taxpayers that co-fund these pensions – to enjoy returns on their savings, net of costs, that approach those available to the world’s largest endowments and philanthropies and to wealthy individuals. In a world in which the distribution of wealth is becoming ever more polarized, DB pension plans represent a small sanctuary where the playing field for growing wealth is level, a terrain on which taxpayers, school custodians and administrative assistants can get a return on their pooled assets, net of costs, that is similar to that of Princeton University. Policymakers should not throw away the long history of high returns and low costs enjoyed by public pensions.

To be sure, managing a DB pension plan in politically shortsighted ways – like continually and radically underfunding it – will result in amassing a large pension debt, just as New Jersey has done over the past 15 years. But switching to a transparently inferior retirement savings vehicle such as 401(k)-type savings plans would be throwing the baby out with the bath water. Instead, New Jersey needs to improve its management of its three DB pension plans, starting with implementing Chapter 78 of 2011.
Appendix A: Recent Media Reports on 401(k) Plans

Just how good are 401(k) retirement plans? A number of recent articles in the business press and other news media recognize 401(k)s have a poor track record in the private sector, failing to provide retirement security and also proving less cost effective than traditional pooled pension plans.

**Pension Plans Beat 401(k) Savers Silly -- Here's Why**
"Towers Watson, the global human resources consultant, found that pension-style plans beat 401(k)-style offerings by nearly 3 percentage points in 2011, the latest study year. Pensions made investment returns of 2.74% while defined contribution plans lost money, banking -0.22%.

It’s no fluke. [Defined benefit] [p]ension plans often beat 401(k) plans. … Part of the reason is mutual fund fees. Mutual funds in the plans studied had weighted average expenses of 65 basis points [0.65%] in 2011… "

**Why Your 401(k) Retirement Plan is Failing You**
"Q: Some people do hit it big (in the stock market) right? A. That’s mostly a myth. We know from the studies of people who look at this data, roughly 1%, maybe a little less, have the ability to beat the markets year in and year out. That’s very unusual. So it’s sort of like saying anybody can be Albert Einstein if only they went to the right high school."

**Retirement Gamble: Frontline’s Powerful Case for Taking Control of your Financial Future**
"Traditional pensions have been supplanted by 401(k) plans, which have proved to be massively ineffective as a primary source of retirement security. Billions of dollars in savings have leaked out of these plans over the years and trillions were wiped away in the market collapses of 2000 and 2008."

**Abolish the 401(k): The real crisis facing America's aging society is not Social Security, but private retirement plans**
*Salon.com*, April 4, 2013 (online at [http://www.salon.com/2013/04/04/abolish_the_401k/](http://www.salon.com/2013/04/04/abolish_the_401k/))
"But the risks, including risks from poor investments and the chance that you will retire during a stock market downturn, fall entirely on the individual. Even worse, many working-class and middle-class Americans with 401Ks are stealthily fleeced by money managers, who charge high
and often difficult-to-find fees for allocating retirement money among stocks, bonds and other assets."

**The Greatest Retirement Crisis In American History**
*Forbes*, March 20, 2013 (online at [http://www.salon.com/2013/04/04/abolish_the_401k/](http://www.salon.com/2013/04/04/abolish_the_401k/))
"Americans also know the great 401k experiment of the past 30 years has been a disaster. It is now apparent that 401ks will not provide the retirement security promised to workers. As a former mutual fund legal counsel, when I recall some of the outrageous sales materials the industry came up with to peddle funds to workers, particularly in the 1980s, it’s almost laughable—if the results weren’t so tragic."

**What Will Replace the 401(k)?**
*Time* Magazine, March 21, 2012 (online at [http://business.time.com/2012/03/21/what-will-replace-the-401k/#ixzz2Ws9a3Kir](http://business.time.com/2012/03/21/what-will-replace-the-401k/#ixzz2Ws9a3Kir))
"With little or no return for more than a decade—and just as baby boomers begin to retire—the savings crisis has pushed us to new levels of despair. More than half the population has less than $25,000 saved for retirement, according to the Employee Benefits Research Institute."

**Retirement overhaul: 401(k)s may not be the answer now**
“Now, we're in a different world," says Ted Benna, a retirement consultant who created the first 401(k) plan in 1980 and is semi-retired. "How are we going to move forward from here? It will be interesting to see. And I am not going to lose any sleep if 401(k) doesn't survive."
Appendix B: The High Cost of Transitioning from Defined Benefit to Defined Contribution Retirement Plans

Public officials who are considering moving from a defined benefit (DB) pension plan to a defined contribution (DC) plan should be aware of the potential side effects. Actuaries and benefit experts who have analyzed proposed changes in other states have found that closing a DB plan and transitioning to a DC plan can result in significant additional costs to the state and taxpayers. Aside from transition costs and the impact on unfunded liabilities, most of the studies in other states also find that new DC plans are substantially less cost-effective in the long term – i.e., they deliver less retirement security for any given level of employee plus employer (or taxpayer) contributions than DB plans. In this annotated bibliography, we highlight primarily findings that relate to the fall of investment returns in DB plans closed to new entrants.

Arizona
An analysis of the DB and DC plans conducted by the Arizona Retirement System in 2006 concluded: “If the goal of a retirement plan is to provide the least expensive method of providing a basic guaranteed replacement income to the members, then the defined benefit plan appears to provide a significant advantage for the majority of participants if the plan choices are mutually exclusive.”

California
A 2011 study for the California Public Employees’ Retirement System concluded that closing the DB plan would lower investment returns of plan assets due to a shrinking investment horizon and the need for more liquid assets. The study also concluded that freezing the DB plan would incur the increased administrative costs of a DC plan and the costs associated with having two systems concurrently.

In 2005, Milliman, an actuarial firm hired by the Los Angeles County Boards of Retirement, studied the fiscal impact of placing Los Angeles County employees hired after July 1, 2007 into a new DC retirement plan instead of the current DB pension. Milliman estimated that the county’s DB plan contribution rate would rise by 3.66 percentage points, increasing required contributions to the closed DB plan by $206 million in 2008. While the contributions would then decline over time, the county would not see any savings in DB plan costs until 2018. The actuary also found that there could be a “transition cost” of the switch to a DC plan: investment of assets may need to be more conservative because no new members would be added after July 1, 2007, reducing investment returns and requiring the employer to pay more to fund retirement benefits.

Colorado
A study by Buck Consultants under contract to the State Auditor in 2001 found “it is more expensive for a defined contribution plan to provide a career employee with the same level of retirement benefits as a defined benefit plan.”
Kansas
An actuarial study examined questions related to closing the DB plan (with no new hires becoming members of the plan). The study concluded, “The System’s current asset mix reflects its position as an institutional investor with a very long time horizon. In anticipation of the closed plan moving into a negative cash flow situation, the target asset mix would be rebalanced to produce a greater degree of liquidity, reflect a shorter time horizon for investment, and the resulting lower risk tolerance level. The System’s ability to invest in illiquid asset classes, such as private equity and real estate, would be reduced. The System’s shorter time horizon for investment would dictate a reduction in the higher return producing asset classes, which produces more volatility of returns. The System’s need to hold more cash equivalents to meet outgoing cash flows would also reduce the total return of the investment portfolio. As a result, the return on the portfolio would be expected to be lower than the investment return assumption on an ongoing basis. The lower investment return would result in higher contributions needed to provide the same benefits.”

Kentucky
An analysis in Kentucky done by the actuarial firm Cavanaugh Macdonald in 2011 found that a conversion to a DC plan would increase the state’s costs for nearly two decades.

Minnesota
A 2011 study for the Minnesota legislature found that the transition costs of switching new hires from DB pensions to DC plans “would be approximately $2.76 billion over the next decade for all three systems.” The analysis explained that costs increase during a transition period because once a plan is closed to new members any unfunded liabilities remaining in the existing DB plan must be paid off over a shorter timeframe.

Nevada
A 2010 Segal Company study of Nevada’s proposal to put new hires in a DC plan found that the state’s total pension costs would increase.

New Hampshire
The New Hampshire Retirement System performed an analysis on proposed 2012 DC legislation related to the benefit plan design and funding. The report found that closing the DB plan to new hires would increase the unfunded liability by an additional $1.2 billion, and closing the DB plan to new workers will likely lead to changes in investment allocations, including an increase in more conservative investments with lower returns, because over time it will become a retiree-only system.

New Mexico
The New Mexico legislature requested analysis on the implications of moving from a DB program to a DC program for all new education employees in 2005. The analysis was conducted by Gabriel, Roeder, Smith & Company, and as the report explained, when a DB plan is closed to new hires, “since a growing portion of plan assets must be used to pay benefits, a
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growing portion of assets will likely be held in short-term securities, thereby reducing investment returns.”

New York
In 2011, the National Institute on Retirement Security and Pension Trustee Advisors conducted a study on behalf of the Office of New York City Comptroller John C. Liu. It found that costs associated with traditional pensions range from 36 percent to 38 percent less than a DC plan providing equivalent benefits. Longevity risk pooling saves between 10 and 13 percent, maintenance of portfolio diversification saves between 4 and 5 percent and superior investment returns saves between 21 and 22 percent.

Pennsylvania
Three different actuaries concluded that closing Pennsylvania’s DB pensions to new employees would gradually erode investment returns leading to a $42 billion increase in unfunded liabilities.

Texas
The Employee Retirement System of Texas in 2012 noted that, in many cases, the increased cost of freezing a DB plan, combined with the inefficiencies of DC plans, made it sensible to “modify the existing plan design instead of switching all employees to an alternative plan structure.”

The Teacher Retirement System of Texas concluded that even if contributions remained the same as in the current DB plan, participants in an individually directed DC plan would have only a 50 percent chance of earning investment returns high enough to get 60 percent or more of the DB plan benefit. The study found that it would cost 12 percent 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 an estimated $11.7 billion – 49 percent higher than the current liability – due to lower investment returns resulting from a transition to a more liquid asset allocation.

Wisconsin
A 2011 study for the state legislature analyzed the impact of establishing a DC plan as an option, among other potential changes to the Wisconsin Retirement System (WRS). The final report stated: “Actuarial analysis indicates that to provide a benefit equal to the current WRS plan, an optional DC [defined contribution] plan would require higher contributions than employers and employees currently pay.” The study recommended: “Given the current financial health and unique risk-sharing features of the WRS, neither an optional DC plan nor an opt-out of employee contributions should be implemented in Wisconsin at this time. Analysis included in this study from actuaries, legal experts, financial experts, and information from similar studies conducted in other states show that there are significant issues for both study items in terms of the actual benefit provided and potential for negative effects on administrative costs, funding, long term investment strategy, contribution rates, and individual benefits.”
Endnotes


3 There is a modest difference between the number of active members in the two states’ plans, with New Jersey having more active members (473,949 versus 379,552), reflecting the greater growth of the New Jersey population in the last several decades.

4 A letter from Cheiron, the consulting actuary for Pennsylvania’s Public Employee Retirement Commission (PERC) to PERC, summarizes the transition costs of the Pennsylvania Senate version (SB 922) of Governor Corbett’s 2013 401(k)-type proposal based on the actuarial studies by the PSERS and SERS actuaries. Tables 5 and Table 6 of the Cheiron letter show transition costs of $35 billion for PSERS and $7.2 billion for SERS, for a total of $42.2 billion (on a cash flow basis – i.e., in nominal dollars not dollars in hand today, which economists call “present value” dollars). See “Letter from Tony Parisi to James L. McAneny, Executive Director, Public Employee Retirement Commission, Re: Senate Bill No. 922 (Printer’s No. 1252, as Amended by AO2498),” in Public Employee Retirement Commission, Actuarial Note Transmittal, Senate Bill Number 922, Printer’s Number 1252, as amended by Amendment Number 02498, online at https://rlws.sers.pa.gov/apex/f?p=146:15:1837450920335:::P15_HIST_LEG_KEY:2726, pp. 21-35. (This complete PERC Actuarial Note Transmittal within which the Cheiron letter can be found is 583 pages.) See also Stephen Herzenberg, A $40 Billion Dollar Oversight: Actuarial Studies Document High Cost of Governor’s Pension Plan, Keystone Research Center; online at http://keystoneresearch.org/publications/research/pension-primer-7-40-billion-dollar-oversight. This KRC brief was written based on actuarial studies of the House version of the Governor’s 401(k) proposal, which also included benefits cuts for current members. Nonetheless, the findings on the transition cost estimates are essentially the same as those summarized by Cheiron based on the actuarial studies of the Senate version of the Governor’s proposal, which did not include benefit cuts.

5 For the arguments in this and the next paragraph, see, for example, California Public Employees Retirement System, The Impact of Closing the Defined Benefit Plan at CalPERS, March 2011, online at http://www.calpers.ca.gov/cip-docs/closing-impact.pdf.


7 For details and references on the Alaska and Michigan examples, see Herzenberg, Digging a Deeper Pension Hole, pp. 5-6.

8 Judy Ward, “State Plan Sponsor of the Year: A Lesson in Funding,” online at http://www.plansponsor.com/MagazineArticle.aspx?id=429499002

Data for 2001 to 2010 from Michigan State Employees Retirement System (MSERS), Comprehensive Annual Financial Report (CAFR) for the Fiscal Year Ended September 30, 2011, p. 43, online at http://www.michigan.gov/documents/orstatedb/State_Employees-2011_CAFR_375807_7.pdf; data for 1997 to 2000 from MSERS, CAFR for the FY Ended September 30, 2007, p. 43, online at http://www.michigan.gov/documents/orstatedb/CAFRAStateEmployees_221902_7.pdf. There are two estimates for the Michigan unfunded liability in the 2000 CAFR, the second showing that the defined benefit fund had a surplus of $733 million when the fund was closed to new employees (not a deficit of $697 million).

11 The analysis in this paragraph is based on data in Alaska Department of Administration (ADA), Division of Retirement and Benefits (DRB), Public Employees’ Retirement System (PERS), Comprehensive Annual Fiscal Report for the Fiscal Year Ended June 30, 2012, pp. 117-118, online at http://doa.alaska.gov/drb/pdf/pers/cafr/2012PersCafr.pdf; and ADA/DRB/PERS, Teachers’ Retirement System Comprehensive Annual Financial Report For the Fiscal Year Ended June 30, 2012, pp. 110-11, online at http://doa.alaska.gov/drb/pdf/trs/cafr/2012TrsCafr.pdf. There is a three-year lag in Alaska between the actuarial determination of required employer contribution rates and their application. It could therefore be argued that rather than comparing the 2012 and 2006 rates, we should compare the 2014 (which is based on 2011 financial data) and 2009 rates (based on 2006 financial data when Alaska switched to defined contribution plans). During this alternate period, the employer contribution rate for unfunded pension liabilities has increased from 21.5 percent to 24.19 percent for state workers; for teachers the rate has increased from 34.8 percent to 43.51 percent. Thus, the qualitative finding remains that employer contribution rates to pay off the unfunded liabilities have increased since the switch to a defined contribution rate. (Note also that employer contributions to pay off the unfunded liabilities in Alaska continue to be imposed on total salaries, including those of new employees.)

Disentangling the impacts of overall financial market conditions from the decline in investment returns as these defined benefit pensions wind down is a very challenging analytical task. No one to our knowledge has yet attempted this in a rigorous way. As a logical matter, since Michigan’s DB plan was closed 17 years ago it is likely that some of its increases in unfunded liabilities now reflect “transition costs.” In Alaska, since it has been closed less than a decade, most of the increase in unfunded liabilities may reflect the overall collapse of financial markets.


14 Instead of buying an annuity, holders of individual accounts may prefer to retain a savings account and spend it down during retirement. When they choose this option, however, holders of individual accounts need to save for beyond the median life expectancy or run a 50 percent chance of running out of funds before they die.


16 See Brendon McFarland (2013), “DB Versus DC Investment Returns: the 2009-2011 Update,” The Insider, May 2013, online at...


18 Almeida and Fornia, A Better Bang for the Buck, August 2008; and Fornia, Better Bang for NYC’s Buck, October 2011, Table 6, p. 23.

19 There are four bars for the three systems because the chart shows separately the benefit levels for state government and local government members of the State Employees Retirement System.

20 The table excludes pension plans for safety employees such as police and fire, which have more generous benefits in New Jersey and most other states. As with teacher and state/local pensions, New Jersey’s pensions for police and fire employees are less generous that pension plans for most safety employee pensions in other states. Our estimates likely overestimate the generosity of New Jersey’s pensions. In comparing other pensions to New Jersey’s pensions for teachers and state/local employees, if there was ambiguity in the generosity of other plans compared to New Jerseys, we erred on the side of recording the system as less generous. Source. Keystone Research Center analysis based analysis of 119 public funds for non-public safety personnel in the National Association of State Retirement Agencies Public Fund Survey data, online at http://www.publicfundsurvey.org/publicfundsurvey/survey.asp

21 This is based on an assumption of 4 percent average nominal wage increases annually plus final average salaries that equal an average of salaries over the last five years of service.


24 New Jersey Pension and Health Benefit Study Commission, Truth and Consequence, p. 6; see also p. 7 for year-by-year underfunding.

25 This is based on data downloaded on the three New Jersey plans from the Public Plans Database maintained by the Center for Retirement Research at Boston College; online at http://crr.bc.edu/data/public-plans-database/. In 2001, PERS was 117 percent funded, the Police and Fire Pension plan 101 percent funded, and the Teachers Plan 108 percent funded.

26 If you start in 2000 and cover the period 2000-12, New Jersey is even more of an outlier, contributing only 27 percent, on average, of ARC, with second-place Washington more than twice as much, at 62 percent.

27 The COLA suspension for retirees and active employees when Chapter 78 was enacted is an ongoing subject of a court challenge.

28 Online at http://www.state.nj.us/treasury/omb/publications/15bib/BIB.pdf

29 Economist Thomas Piketty in his widely admired book Capital in the Twenty-First Century, reviews research evidence on the correlation between wealth and the rate of return on that wealth. He does this to show that the wealthy of the wealthiest grows more quickly than the wealth of the rest of us and this contributes to the growing importance of inherited wealth in total global wealth. But the logic and evidence Piketty uses to explain why the wealthiest enjoy the highest (net) returns on their capital is essentially the rationale behind DB pensions: the wealthy enjoy the benefits of economies of scale and also low fees, and they also can pay for the best professional management of their funds will tiny fractions of their assets (because they have so many assets.)
33 Kansas Public Employees Retirement System (KPERS or the System) and Cavanaugh Macdonald Consulting LLC (Cavanaugh Macdonald), Fiscal Impact Report: Senate Substitute for HB 2194 and House Substitute for HB 2333 Conference Committee on Senate Substitute for HB 219, online at http://www.kpers.org/legislation_fiscalimpactreport.pdf.
40 See references in this body of this brief.
43 Wisconsin Department of Administration (Department of Employee Trust Funds, Office of State Employment Relations), Study of the Wisconsin Retirement System in Accordance with 2011 Wisconsin Act 32, June 30, 2012; online at http://etf.wi.gov/publications/wrs-study.pdf.