

# FAQ



NATIONAL INSTITUTE ON  
**Retirement Security**  
Reliable Research. Sensible Solutions.

## **A Better Bang for the Buck The Economic Efficiencies of Defined Benefit Pension Plans**

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### **Why this report?**

For a number of reasons, retirement security has been at the forefront of policy discussions and media attention. Millions of baby boomers are approaching retirement with inadequate retirement assets. At the same time, home values have plummeted, the market/401(k) accounts have taken a nosedive, and consumer prices and inflation have skyrocketed.

Unfortunately, inaccurate and incomplete information about defined benefit (DB) retirement plans has colored retirement policy discussions. In particular, claims have been made that 401(k)-type individual defined contribution (DC) plans are less expensive than DB plans.

“A Better Bang for the Buck: The Economic Efficiencies of Defined Benefit Pension Plans” was published to assess the embedded economic efficiencies of DB plans and then make an “apples-to-apples” calculation of the actual dollar contributions required for a DB and DC plan to achieve the same target retirement benefit.

The report is a myth buster. The findings indicate that a DB pension plan can deliver the same level of retirement income to a group of employees at nearly half the cost – 46% lower – than a DC account.

### **How was the study conducted?**

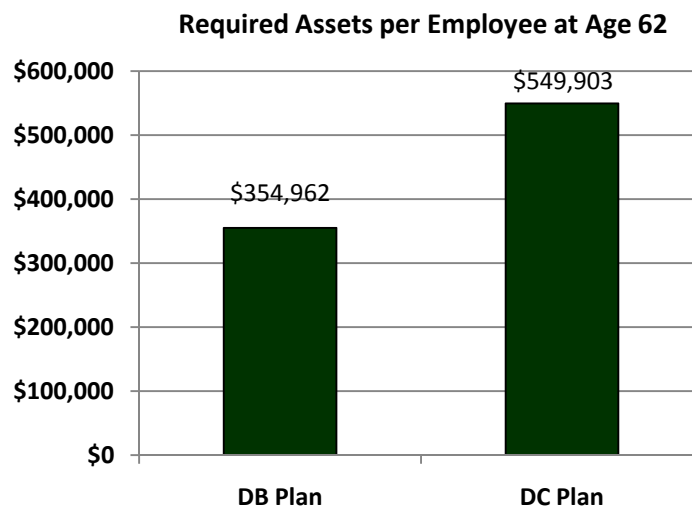
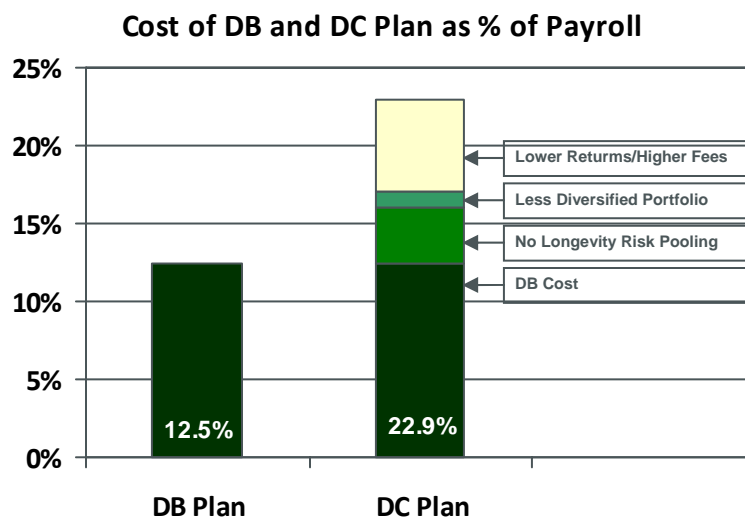
In “Bang for the Buck,” we developed a model that makes an “apples to apples” calculation of the actual dollar contributions required for a DB and DC plan to achieve the same target retirement benefit.

The model is based on a group of 1,000 newly hired 30 year old female teachers who work for a total of 30 years and retire at age 62 with a final salary of \$50,000. The target annual pension benefit for the model is \$26,684 annually, or \$2,224 monthly with cost of living adjustments. Together with Social Security benefits, each teacher in the model can expect to receive roughly 83% of her pre-retirement income, which meets the accepted standards of retirement income adequacy.

## What are the key findings?

The DB plan provides a better bang for the retirement buck. Under the model, the DB plan provides the same retirement income at nearly half the cost of individual 401(k)-type defined contribution accounts – specifically, a 46% lower cost.

The DB plan needs contributions of 12.5% of payroll each year in order to reach the target benefit level. It needs to set aside \$355,000 for each worker by the time she turns 62. In contrast, the DC plan requires contributions of 22.9% of payroll each year. It needs to set aside \$550,000 for each participant in the plan by the time she turns 62. In other words, the DB plan can provide the same benefit at a cost that is 46% lower than the DC plan, \$200,000 less per participant.



## How is it that DB plans are less expensive than DC plans?

There are three characteristics embedded in DB plans that drive their economic efficiency:

1. **DB Plans Avoid “Over-Saving.”** We won’t all live to be ninety-five or one hundred. But in an individual plan, many of us will want to save enough to last until very old age to avoid the risk of running out of money. By contrast, a DB plan only has to save for the AVERAGE life expectancy, which is much lower and which actuaries can calculate with a high degree of accuracy. By saving for a realistic average life expectancy, the DB plan realizes a **15% cost savings**. In technical terms, this is called “longevity risk pooling.”
2. **DB Plans Stay Forever Young.** Individuals age. Therefore, those of us in individual retirement plans must adjust our asset allocation to ensure sufficient cash is on hand throughout retirement. Most advisors counsel individuals to downshift from higher risk/higher return investments to lower risk/lower return investments as they get older. This process protects us from the risk of a stock market crash, but progressively reduces the investment returns we can expect to earn in our retirement piggybanks. However, a DB plan exists across generations and can always maintain the most optimal asset allocation. There isn’t a need to be overly weighted in bonds or cash. This results in a **5% cost savings**.
3. **DB Plans Achieve Higher Investment Returns.** The higher returns of DB plans as compared to individual accounts can be attributed a combination of professional asset management and lower fees. A retirement plan that earns greater investment returns will require less money in contributions. Even seemingly small differences in annual returns compound over time. In our model, a 1% difference in annual investment returns results in a **26% cost savings** over a career, as compared to the DC plan.

## How much cheaper are DB plans?

By our calculations, delivering the same retirement benefit is 46 percent less expensive with a DB plan than a DC plan.

In our model, the DB plan can pay for the teachers target retirement income with contributions of just 12.5% of payroll each year, while the DC plan costs 22.9% of payroll each year. In terms of the dollars that must be accumulated, the DB plan can provide the target retirement income with \$355,000 set aside for each teacher by the time each turns 62. In contrast, the DC plan must accumulate \$550,000 per teacher in the plan by the time she turns 62. The DB plan can provide the same retirement benefits even as it accumulates nearly \$200,000 less per participant.

## So, why the trend of switching from DB to DC plans?

There is a good deal of confusion about the relative costs and economic efficiencies of DB plans versus DC plans.

While many employers have cited the financial burden of DB plans as their main reason for shifting from a DB to a DC plan, it is important to separate the question of benefit generosity from the question of the economic efficiency of a retirement plan. Our model separates these issues by constructing an apples-to-apples comparison using the same target retirement benefit.

A review of the economic literature also helps in this regard. Researchers have found that when employers move out of DB and into DC plans, they almost always cut the average employee benefit in the process. One study found that between 1981 and 1998 the average employer pension contribution declined from \$2,140 to \$1,404 per employee, while the share of pension contributions attributed to DC plans increased from 23% to 68% in that time period.

Thus, when employers simultaneously reduce their contributions along with the move from DB to DC, they will undoubtedly save money. This does not mean, however, that DC plans are inherently cheaper than DB plans. It simply means that employers are reducing employee benefits while also changing the benefit design. Shifting costs from one party (the employer who reduces contributions) to another (employees who receive less in retirement) does not reduce costs overall.

## What are the elements of a secure retirement?

NIRS, along with most retirement experts, believes that retirement security can be achieved with a “three-legged stool” consisting of Social Security, a DB plan, and a supplemental DC savings plan. Workers who have access to all three sources of retirement income are in the best position to achieve a secure retirement.

Although the report indicates that retirement benefits in DC plans are nearly twice the price, the report also indicates that DC plans are essential to the retirement security equation. DC plans enable workers the save for retirement in a manner that reflects their individual situations.

At the same time, there is a dire need to rebuild retirement readiness. This must involve ensuring DB plans remain the centerpiece of retirement income policy and practice. Given current fiscal and economic constraints facing corporate and government retirement plan sponsors, the bang for the buck provided by DB plans is all the more important.

## Is there a way to create a “pension renaissance?”

Reviving the pension system for the private sector is imperative in ensuring the nation moves forward and not backward.

Right now, we're on the backward track. Retirement plan coverage is declining, and personal savings are virtually non-existent. Unless we can turn around and leverage the economic and fiscal efficiencies of DB plans, we are doomed to a nation of underfunded individual retirement plans. In the end, Americans will turn to expensive public entitlement programs in their old age or work until they die. Neither option is palatable.

We hope that research such as the Bang for the Buck will provide policy and decision makers with factual data to improve retirement policies and decisions. A pension renaissance can occur by leveraging pension systems that work (such as multi-employer and public pensions) and identifying ways to revive private sector plans.

## Who authored and sponsored the report?

The report is published by the National Institute on Retirement Security, a new not-for-profit organization in Washington, DC. NIRS is dedicated to research and education programs that deliver reliable research and sensible solutions related to retirement security matters.

The report authors are Beth Almeida, NIRS Executive Director, and William (Flick) Fonia, Aon Consulting Senior Vice President. Almeida is an economist and was involved with the transition of some 40,000 airline employees out of terminating or freezing pensions into a multi-employer defined benefit pension plan. Fonia is an actuary with nearly 30 years of pension and healthcare experience in the public and private sectors.

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