Defined Benefit Pensions: Still the Best Bang for the Buck

By Diane Oakley, Executive Director, NIRS

Back in August 2008, the National Institute on Retirement Security (NIRS) issued a report that shattered a myth about the cost of retirement plans. *A Better Bang for the Buck: The Economic Efficiencies of Defined Benefit Pension Plans* was co-authored by a respected economist and qualified actuary, and reviewed by outside experts for accuracy. Its validity has withstood the test of time.

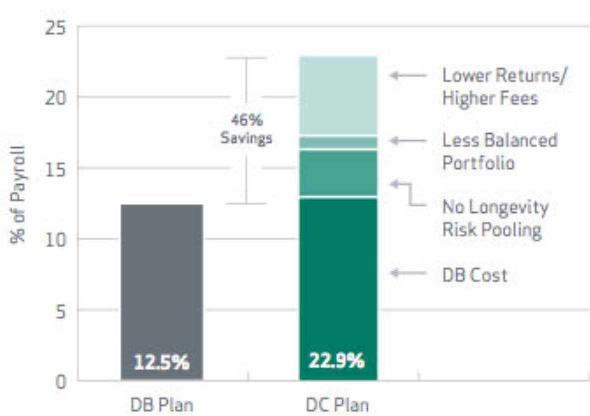
The analysis indicates that key structural advantages inherent in defined benefit (DB) pensions – particularly the pooling of risks and assets – fuel the fiscal efficiency of pensions. Today, this research remains valid. A pension can deliver the same retirement income at about a 46% lower cost than an individual defined contribution (DC) account because pensions:

- **Avoid the problem of "over-saving"** by pooling the longevity risks of large numbers of individuals.

- **Are ageless and therefore can perpetually maintain an optimally balanced investment portfolio** rather than adjusting over time to a lower risk/return asset allocation.

- **Achieve higher investment returns** as compared to individual investors because of professional asset management and lower fees.

Cost of DB and DC Plan as % of Payroll



Recently, the Laura and John Arnold Foundation (Arnold Foundation) released a paper written by Josh McGee, that was originally published by TIAA-CREF Institute but was subsequently pulled from the Institute's website. Entitled *Equivalent Cost for Equivalent Benefits: Primary*

DC Plans in the Public Sector, the paper questions the model used in *A Better Bang for the Buck.* Unfortunately, the Arnold Foundation paper relies exclusively on a flawed critique of the assumptions of the NIRS model. Moreover, it fails to offer a concrete cost analysis that supports their assertion that DC plans provide benefits at a cost equivalent to that of DB plans.

NIRS stands by our research. The structural DB cost advantages quantified in *A Better Bang the the Buck* – derived from well-documented research on investment returns, fees, and asset allocation – remain valid based on current data about DB and DC plan features and performance. They are not myths has publically stated in testifying before state legislative bodies.

In the spirit of ensuring the continued integrity of NIRS research, we reviewed the Arnold Foundation paper. Below is an analysis of its flawed reasoning.

1. The Arnold Foundation paper makes its argument on a model that does not exist in the real world.

- The paper indicates that a fair comparison to a typical DB pension is not a typical DC plan, but rather a so-called "best practice" DC plan. In a "best practice" plan, individual investment mistakes are eliminated by the plan making default investments and having retirees convert account balances to life annuities. This is great in theory, but it just does not always happen in the real world.
- While DC plan carriers cite as an advantage employee choice and control over investments and payment options, this individual control, in practice, ultimately gives DB pensions with their pooled approach to investing and longevity a cost advantage. Professor Robert Shiller – who just last year won the Nobel Prize in Economics – said it best: "The idea that everyone will manage their 401(k) plan optimally is really not right."[1]
- Theoretically, participants in a so-called "best practice" DC plan indeed can elect all the necessary options to mimic the cost advantages of DB plans, but experience shows they do not, and DC plans rarely force such a choice for most participants. Surprisingly, the Arnold Foundation paper presents no evidence that the choices made by DC plan participants, for example in the cited best practice program TIAA-CREF, result in equivalent benefits at an equivalent cost to a DB pension.

2. The Arnold Foundation paper argues it is unfair to claim a cost advantage based on longevity risk pooling for DB pensions because some DC plans offer annuities. However, individual annuity take-up rates are low, costs are higher, and many "annuities" are not life annuities.

- A 2007 overview of empirical literature indicated that annuities were rarely available in DC plans.[2]
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- More recently, a Government Accountability Office analysis indicated that 82 percent of workers retiring with DB plan coverage take lifetime benefits, while just 6 percent of workers covered by a DC plan choose to annuitize.[3]
- Even in TIAA-CREF, only about a third of retirees start retirement with the same lifetime guaranteed income that a DB pension automatically provides all retirees.[4]
- DB plans annuitize at a much lower cost to participants than insurance companies. For example, the Federal Thrift Retirement Plan —a best practice DC plan— currently provides insured group annuity benefits at an interest rate of 1.75 percent.[5]
- Aon-Hewitt calculates the amount of retirement savings that one needs in order to assure that retirement income lasts until the 80 percentile life expectancy to be 13.6 times final pay, which is 23 percent more than the 11 times pay needed for average life expectancy.[6]

3. The Arnold Foundation incorrectly claims *A Better Bang for the Buck* assumed a 100 basis point advantage for DB pensions on fees alone and asserts that risk adjusted returns are same for DB and DC plans. Industry data continues to show that DB plans earn higher actual returns. Ultimately, our conservative assumption of 100 basis points advantage for DB plans based on *both* professional asset allocation *and* lower expenses remains valid.

- The NIRS paper clearly states, "In our model, we use conservative estimates of the differences in DB and DC plan costs and expected returns. We model a 100 basis point (1%) net disadvantage for the DC plan annual investment returns as compared to the DB plan returns."[7]
- Over the long-term, the markets reward investors who take more risk. Indeed that very concept supported the creation of CREF in 1952 and remains today as the point of *A Better Bang for the Buck*. The perpetual nature of DB plans enables them to absorb more risk than individuals. Regardless of whether risk adjusted returns are the same, DB plans consistently earn higher actual investment returns compared to returns of individual participants in DC plan accounts and thus maintain the DB pension cost advantage.[8]
- Even if DC participants perfectly mimic the investments of a DB plan, this would expose them to investment volatility that would not be prudent later in their lives when practiced on an individual rather than a group basis.
- As DC plan fees have received more scrutiny by policymakers, the data from the Investment Company Institute (ICI) shows that over time fees have declined, but they remain higher than DB plan expenses. ICI calculates the fees at 65 basis points on an asset-weighted basis.[9]
- While some funds like Vanguard and TIAA CREF offer competitive fees, TIAA-CREF fund fees still range between 32 to 120 basis points. The average 51 basis points "all in" fee that TIAA-CREF reports in the paper remains more than 20 percent higher than the total costs for similar sized public DB plan of 39 basis points.[10]

Ultimately, the original *A Better Bang for the Buck* study was more than fair in modeling a typical DC plan without many of the problems of individual investing documented in behavioral finance research. While NIRS applauds efforts to add desirable DB features to DC plans, it is not sufficient to achieve the same cost efficiency as DB plans.

For example, a September 2012 study by the Teachers' Retirement System of Texas, *Pension Plan Design Study,* modeled a range of benefit designs based on a careful review of existing research on investment returns and fees. [11] According to this study's findings, a self-directed DC plan, given individual investors' tendency to significantly underperform the market, would deliver only 45 percent of the benefit of the existing TRS DB plan at age 65.[12] A pooled DC plan with professional investment management – yielding returns just .02% less than the TRS trust fund – and full annuitization of balances at age 65 through an insurance company at a generous 5 percent interest rate would provide only 60 percent of the TRS benefit.[13] Employers face an unavoidable tradeoff between risk and cost in designing retirement benefits that will attract and retain quality workers.

We welcome analysis of our research and are committed to rigorous review. In this case, the paper by the Arnold Foundation fails to credibly refute NIRS research. We stand firm behind our analysis and our conclusion that DB pensions offer benefits at a substantially lower cost than is possible under DC plans—whether typical or best practice.

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[1] Irwin, N., 2013 (Oct. 20), "Shiller: I see a great deal of foolishness," *Washington Post*.

[2] Perun, P., 2007, "Putting Annuities Back into Savings Plans," in T. Ghilarducci and C. Weller, eds., *Employee Pensions: Policies, Problems, and Possibilities*, Labor and Employment Relations Association, Champagne, IL; Gentry, W. and C. Rothschild, 2010, "Enhancing Retirement Security Through the Tax Code: The Efficacy of Tax-Based Subsidies in Life Annuity Markets," *Journal of Pension Economics and Finance*, v9n2:185-218. See literature review discussion regarding fees and take-up rates.

[3] Jesezek, C., 2011, "Ensuring Income Throughout Retirement Requires Difficult Choices," GAO-11-400, U.S. Government Accounting Office, Washington, DC.

[4] Author's calculation based on data from Yakoboski, P.J., 2013 (May 9), "Accumulation to Income in Defined Contribution Plans," presentation at EBRI-ERF Policy Forum, http://www.ebri.org/pdf/programs/policyforums/May%209%202013%20EBRI%20Policy%20Forum%20Master%20Slide%20Set.pdf

[5] Isaacs, K., 2013 (Mar.), "Federal Employees' Retirement System: The Role of the Thrift Savings Plan," Congressional Research Service, Washington, DC.

[6] Aon Hewitt, 2012, "The Real Deal: 2012 Retirement Income Adequacy at Large Companies," Aon Hewitt.

[7] Almeida, B. and Fornia, W., 2008, "A Better Bang for the Buck: The Economic Efficiencies of Defined Benefit Pension Plans," National Institute on Retirement Security, Washington, DC, p.12.

[8] Fornia, W., 2011 (Oct.), "A Better Bang for New York City's Buck," National Institute on Retirement Security, Washington, DC.

[9] Investment Company Institute (ICI), 2013, *Investment Company Fact Book*, ICI, Washington, DC.

[10] Brainard, K., 2010, The Public Fund Survey, NASRA, Austin, TX.

[11] Teachers Retirement System of Texas (Texas TRS), 2012 (Sep.), "Pension Benefit Design Study," Texas TRS, Austin, TX.

[12] Analysis of data from Texas TRS, op cit., p. 20, Figure 5.3.

[13] Ibid.

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