Office of the Vermont State Treasurer

Review of Defined Benefit and Defined Contribution Plans

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VERMONT

Defined Benefit and Defined Contribution Plans

- Under a **defined benefit (DB)** system the employer guarantees an annual retirement payment for their employee that is based on a formula

- The **defined benefit** is calculated based on an employee's years of service, age at retirement, and either ending salary or average salary over a period of time (AFC or average final compensation)

- In a **defined contribution (DC)** system, the ultimate retirement benefit is the accumulated value of an individual's account at retirement, resulting from his/or her own contributions and investment returns

Defined Benefit vs. Defined Contribution Plans

A DC system will cost MORE money than the current DB system.

- Based on 2021 valuations and payroll levels projected by the actuary, if a new DC system were implemented and applied to all employees, this would **INCREASE the cost of pensions** by **$5,031,113**, expected to grow to $**6,856,890 in ten years with an accumulated cost of $59,021,965** and growing each subsequent year*.

- Even limiting conversion of new employees would be a substantial cost, growing every year as new employees are hired.

- **It will NOT eliminate the unfunded liability.** Evidence exists in other states that the unfunded liability would continue to grow.

*Example using the state's current DC system limited to exempt employees. A move to current state DC plan would require higher contribution than current normal cost of payroll for every employee in DC system every year. This is a preliminary estimate and assumes continued utilization of the current DC plan and not a new configuration. Would need to look at actuarial value of a proposed DC plan as compared to the pension plan, normal cost for new entrants, cash flows, and other factors to complete the estimate.

Defined Benefit vs. Defined Contribution Plans

- Towers Watson has been comparing annual investment returns in defined benefit (DB) and defined contribution (DC) plans since 1995
  - Defined contribution plans are outperforming defined benefit plans in market booms, while defined benefit plans are better equipped to weather downturns
  - "To join the competition for investment returns, DC schemes must face up to their disadvantages and be clear about the mission and investment objectives so that risk can be clearly framed."*

- Morningstar Center for Retirement and Policy Studies**and Comments on DC Plans***:
  - Defined contribution plans saw a $4.61 trillion outflow of money from 2011 to 2020. These outflows, which the authors believe are likely due mostly to rollovers and cash-outs, reduce plan assets, which in turn leads to higher asset management fees and lower returns for participants.
  - Plan costs vary widely, with some participants in small plans paying around double that of participants at larger plans. The authors note that "these differences in fees can add up, leaving participants with fewer assets at retirement and less ability to achieve their retirement goals."
  - Plan sponsors appear to have shied away from considering environmental, social and governance (ESG) information and analysis, in part because of regulatory uncertainty. The report contends that this avoidance has exposed the U.S. DC system to greater ESG risk, defined as "the degree to which companies fail to manage ESG risks, potentially imperiling their long-term economic value." The authors' advice: Plan sponsors may wish to reexamine their investment choices using an ESG lens.

* Source: "DC targets mean returns will always lag DB – Towers Watson", Corporate Adviser, February 2015 (not sure of the universe of pensions reviewed)

**March 1, Morningstar subsidiary Morningstar Investment Management LLC's Workplace Solutions group announced the formation of the Morningstar Center for Retirement and Policy Studies. The center's first issue brief, Retirement Plan Landscape Report by Aron Szapiro and Lia Mitchell.

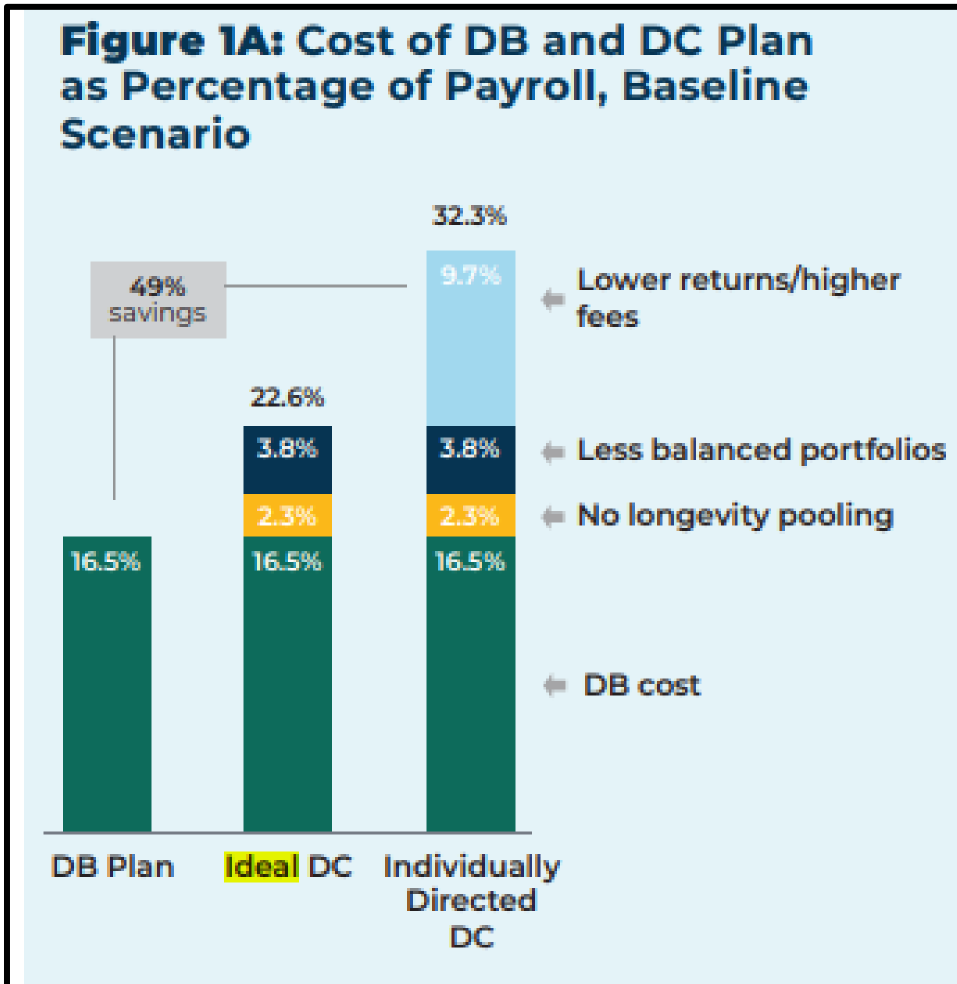
*** Source: R. Moore, "Case Studies Suggest Move From Public Pensions Hurts Taxpayers", Plan Sponsor, August 2019.

"A Better Bang for the Buck 3.0"

National Institute on Retirement Security, January 2022

Compared 3 Types of Plans

- A typical large public sector **DB pension**
- Two kinds of DC plans;
  - **"Ideal" DC plan**
    - Typical target date fund (TDF)
    - Asset allocation pattern, fees below industry average,
    - Asset class investment performance as strong as that managed by professionals
  - **Individually Directed DC plan**
    - Industry average fees
    - Reduced investment returns based on typical individual investor behavior



Why are DB Plans a Better Bang for Your Buck?

- A typical DB plan, with advantages based on longevity risk pooling, asset allocation, low fees and professional management, **has a 49 percent cost advantage compared to a typical individual directed DC plan:**
  - Longevity risk pooling – generates a cost savings of about 7%
    - In order to provide lifelong income to each and every retiree, DB plans only have to fund benefits to last to average life expectancy
    - In a DC plan, an individual must accumulate extra funds in order to self-insure against the possibility of living longer than average or possibly buy a life annuity from an insurance company, at a cost
  - Well-diversified, long-term portfolios – generates a cost savings of about 12%
    - DB plans can maintain a diversified investment portfolio over the long-term
    - Individuals in DC plans are often advised to shift to lower-risk/lower-return assets as they age
  - Low-fee professional investment management and higher investment returns – generates a cost-savings of about 30%
    - DB plans generally have lower investment and administrative expenses than DC plans and have better access to professional investment management

Source: W. B. Fornia, FSA and D. Doonan, "A Better Bang For The Buck 3.0,Post-Retirement Experience Drives Pension Cost Advantage", January 2022
W.B. Fornia and N. Rhee, 2014, "Still a Better Bang for the Buck: An Update on the Economic Efficiencies of Defined Benefit Pensions,", 2014

Defined Benefit Pensions are an Economic Generator

Reliable and adequate income in retirement is important to Vermont's economic prosperity

- Retirees with adequate and reliable income buy goods and services and are part of the economic generator

- Per 2016 NIRS study, retiree spending of pension benefits in 2014 generated $1.2 trillion in total economic output, supporting some 7.1 million jobs across the U.S.

- Per NIRS, each dollar paid out in pension benefits supported $2.21 in total economic output nationally
  - In 2014, State and local pension funds in Vermont and other states paid a total of $308.7 million in benefits to 17,125 Vermont residents in 2014. Retirees' expenditures from these benefits supported a total of $386.5 million in total economic output in the state
  - In 2014, the average pension benefit received was $1,468 per month or $17,622 per year in Vermont
  - Retiree expenditures stemming from state and local pension plan benefits supported 2,809 jobs in Vermont

On the other hand…

Lack Of Retirement Savings Adds Retirement Insecurity and Budgetary Pressures

Per U.S. Governmental Accountability Office:*

“ Since 1975, there has been a **marked shift to defined contribution plans, such as 401(k)s, as the primary type of retirement plan. Combined with increases in longevity, this shift has increased the risks and responsibilities for individuals in planning and managing their retirement. Yet research shows that many households are ill-equipped for this task and have little or no retirement savings.”**

“**… to the extent that individuals find that their savings are inadequate as a supplement to their retirement benefits from Social Security and any employer-sponsored plan, they may need to rely more heavily on various safety net programs for help**, putting increasing pressure on the federal budget for these programs, and state and local governments’ budgets, as well.”**

The safety net itself is also under stress: Recent studies point to rising levels of bankruptcy among older Americans, citing reductions in safety-net programs and a shift to 401(k)-type plans. The rate of seniors age 65 and older who have filed for bankruptcy has tripled since 1991. ***

* See https://www.gao.gov/key_issues/financial_security_for_older_americans/issue_summary and GAO, *The Nation’s Retirement System*,GAO-18-111SP, October 2017
**See : GAO, *Older Adults: Federal Strategy Needed to Help Ensure Efficient and Effective Delivery of Home and Community-Based Services and Supports,* GAO-15-190 (Washington, D.C.: May 20, 2015).cited in The Nation’s Retirement System.
***Thorne, Deborah and Foohey, Pamela and Lawless, Robert M. and Porter, Katherine M., Graying of U.S. Bankruptcy: Fallout from Life in a Risk Society , August 5, 2018.

Unfunded Liabilities and Remaining Plan Management

- The unfunded pension liability in the Vermont system covers benefits already earned by current employees and retirees
- Changing pension systems for new employees will not reduce the unfunded liability
- It will **cost more dollars** as the employer contribution rates of existing state DC plans exceed the current "normal cost" component.
- Introducing or expanding a DC option will not eliminate the necessity of continued maintenance of the DB plan
- **Investment of Plan Assets**
  - If DB plan is closed, the age profile of the plan will change, necessitating revisions to the asset investment horizon at some point in the future (not likely a near term event)
  - More liquidity required to meet obligations
  - Changes to asset allocation plan would be necessitated, to a more conservative profile, likely adversely impacting return at some point in the future

Examples of Systems Returning to DC Plans and/or Systems Under Stress With Conversion to DC Plan

West Virginia*

- Teachers' Retirement System (TRS) pension plan was closed in 1991, placing new teachers in a defined contribution plan.
  - Funding did not improve
  - DC savings were inadequate
  - State determined DC plan more costly

- Reopened the pension plan in 2005

- 2008: Teachers in DC system given opportunity to transfer to DB plan

- State legislature agreed to switch back to DB if 65% of teachers elected to make the change.

- More than three out of four teachers made the switch (per Pionline, 2008)

- State committed to paying down unfunded liability, now on track.
  - Funding ratio improved to 70% in 2018, from 25% in 2005

- Career educators have improved retirement security

* Source: T. Bond and D. Doonan "Enduring Challenges: Examining the Experiences of States that Closed Pension Plans", NIRS, 2019; " Case Studies of State Pension Plans that Switched to Defined Contribution Plans", NIRS, 2014; and West Virginia Public Retirement Board, Annual Comprehensive Financial Report for Years ending June 30, 2013 an June 30, 2012.

Examples of Systems Returning to DC Plans and/or Systems Under Stress With Conversion to DC Plan

Oklahoma Proposed Change Back to DB System

- The Oklahoma Legislature voted in 2014 to shift all new state employees (excluding teachers and those working in hazardous positions, such as police and firefighters) into a defined contribution plan (NASRA News Clips March 30, 2022)

Legislative Fiscal Impact Statement:

- "Proposed legislation would place new hires in the OPERS defined benefit plan rather than the Pathfinder defined contribution plan"
- Current Pathfinder members would become new OPERS defined benefit plan members and have the option of using their Pathfinder balances to buy OPERS service"
  - "current contribution rates are sufficient to fund the on-going cost of OPERS benefits and pay down the remaining OPERS unfunded liability."
  - "…result in better ability to manage the risks inherent in retirement systems such as investment volatility and mortality improvements."
  - "…opening the plan would result in additional liabilities over time as new members earn benefits. However, because of the funding that would come along with the contributions on the new member pay, the overall funded status would not be diminished"

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Examples of Systems Returning to DC Plans and/or Systems Under Stress With Conversion to DC Plan

Alaska – Issue of Funding and Employee Recruitment and Retention

- Conversion to a DB system does not address the existing unfunded liability.
- Investment risk, mortality risk, contribution cash flows, as well as turnover/retention issues continue to add to the unfunded liability.

- As of 2017 closing the pension plans has not helped the state manage the existing unfunded liability, per a 2019 report.

- Legislature approved a $3 billion infusion of contributions from the Constitutional Budget Reserve Fund in 2014. Alaska has modestly improved funding with additional contributions to system.

- Alaska is a Non-Social Security State -- "does not offer Social Security to its public employees. Social Security is a pension and offers a retirement benefit which cannot be outlived. <u>Without Social Security or a Defined Benefit pension, there is no retirement security for retirees</u>"

- Alaska currently dealing with inability to hire and retain employees, exacerbated by the "Great Resignation".

- Current Bill in legislature: House Bill 55, a measure that would create a DB pension for police and firefighters. Has passed the House and in the Senate for consideration.

* Source: "Enduring Challenges: Examining the Experiences of States that Closed Pension Plans", cited in R. Morre, "Case Studies Suggest Move From Public Pensions Hurts Taxpayers", Span Sponsor, August 2019; "Case Studies of State Pension Plans that Switched to Defined Contribution Plans; Case Studies of State Pension Plans that Switched to Defined Contribution Plans" NIRS, 2015; State of Alaska 2021 Legislative Session, Fiscal Note, HB 55; Alaskan Public Pension Coalition, " White Paper: Returning Alaska to a Defined Benefit System", February 2010; M. Offerman, "Alaska pension funds map out allocations for $3 billion state contribution", pension & Investments, August 2014.

Examples of Systems Returning to DC Plans and/or Systems Under Stress With Conversion to DC Plan

Kentucky

- Kentucky, the legislature enacted a new tier of benefits for plans in the Kentucky Retirement System (KRS). Public employees hired since January 1, 2014, participate in a cash balance hybrid plan instead of the DB plan.
- Kentucky has five plans under the umbrella of the system. KERS Non-Hazardous Plan has declined from 85.1 % funded in fiscal year 2004 to 12.88% in 2018
- Historical underfunding: From 2006 through 2014 the State has contributed roughly half of the required contribution (ADEC)
- Recent divisiveness has further undermined the plan and development of new initiatives.

Michigan

- The State Employees' Retirement System (SERS) pension plan closed in 1997 with all new-hires participating in a defined contribution (DC) plan.
- Plan active to retiree ratios have declined, adding pressures to the DB plan
- Retirement Insecurity - NIRS calculated an average account balance of $87,433 per participant for the DC Plan. This balance would generate annual lifetime income of approximately $3,500 per year, or less than $300 per month. This compares to an average monthly benefit of $22,308 per year or $1,859 per moth in the closed DB system.

* Source: "Enduring Challenges: Examining the Experiences of States that Closed Pension Plans", cited in R. Morre, "Case Studies Suggest Move From Public Pensions Hurts Taxpayers", Span Sponsor, August 2019; "Case Studies of State Pension Plans that Switched to Defined Contribution Plans; Case Studies of State Pension Plans that Switched to Defined Contribution Plans" NIRS, 2015;

Examples of Systems Returning to DC Plans and/or Systems Under Stress With Conversion to DC Plan

Palm Beach, Florida- Public Safety Plan

- While not a State system, provides an illustration on impact in public safety
- In 2012, municipality closed its pension system to newly hired public safety officers (police and firefighters)
- Retention and recruitment suffered
- Turnover significantly increased training costs
- Re-opened defined benefit system in 2016

* Source: T. Bond and D. Doonan, "Enduring Challenges: Examining the Experiences of States that Closed Pension Plans", NIRS, 2019 and "Case Studies of State Pension Plans that Switched to Defined Contribution Plans; Case Studies of State Pension Plans that Switched to Defined Contribution Plans" NIRS, 2015

Historical Data Does Not Support the Assumption That Defined Contribution is The Plan of Choice

Historical Trends- State Defined Contribution Participation				
Fiscal Year	State DC Participants	Number of Active DC Participants	Number of Exempt Employees	Percent of Total Active Exempts
30-Jun-00	**349**	**349**	**806**	**43%**
30-Jun-11	**643**	**385**	**980**	**39%**
30-Jun-12	**633**	**386**	**1008**	**38%**
30-Jun-13	**419**	**380**	**1004**	**38%**
30-Jun-14	**455**	**382**	**1045**	**37%**
30-Jun-15	**602**	**352**	**1034**	**34%**
30-Jun-16	**602**	**342**	**1049**	**33%**
30-Jun-17	**611**	**317**	**1062**	**30%**
30-Jun-18	**601**	**321**	**1059**	**30%**
30-Jun-19	**601**	**349**	**1060**	**33%**
30-Jun-20	**611**	**332**	**1057**	**31%**
30-Jun-21	**551**	**325**	**1073**	**30%**

- In the first year DC plan was offered 43% of eligible staff (exempt employees) selected the DC Option (including those that were in the current DB plan
- While total participants (actives and retirees have generally increased, membership of active members has decreased from 43% in FY2000 to 30% in FY 2021.
- As current employees as of June 2021 includes employees joining in prior years, the DC option is less likely to be the option of choice among new hires.
- Classified employees, generally with longer tenure, are less likely to select DC plans over DC.

Note: Information not available for DC plans from FY2001 through FY2010

Public Employees Prefer Defined Benefit Plans
Important Consideration in Recruitment and Retention

- 2015 Study*: Among the eight states studied that offer employees such a choice, the **take-up rate of DB plans was 80% or higher in six of those states.** Per the study:
  - Ohio PERS 95%
  - Florida 76%
  - Michigan 75%
  - North Dakota 98%
  - The percentage of new employees electing defined contribution (DC) plans ranged from 2% in North Dakota to 25% in Michigan

- Similar Results in a 2011 study conducted by NIRS and the actuarial firm Milliman

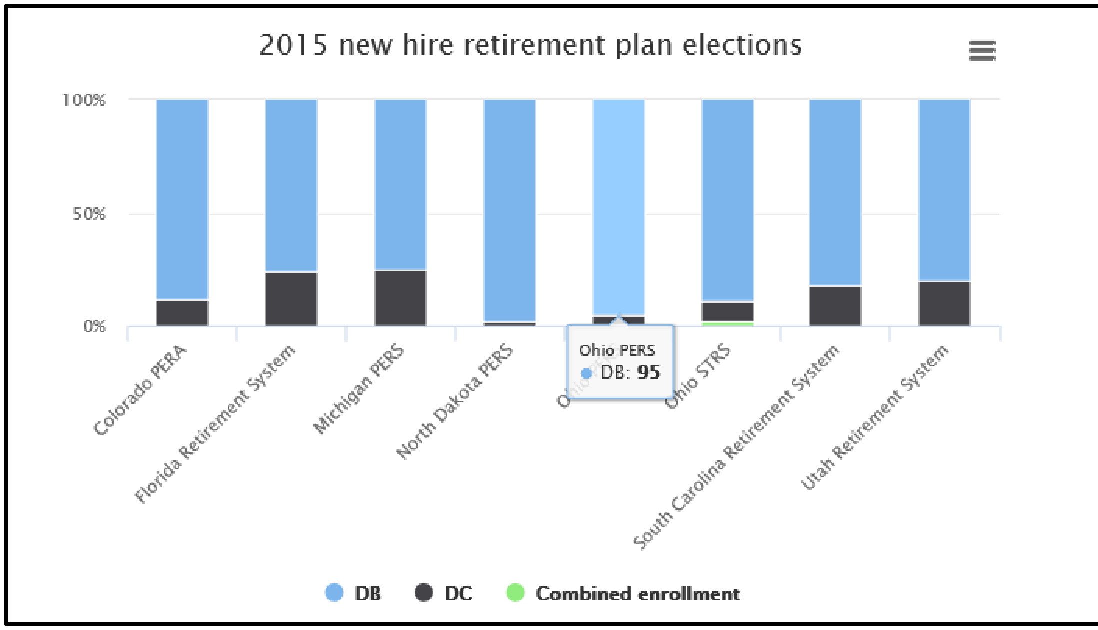

Table 2. **New Hire Elections in 2015 For Systems with Choice of DB or DB/DC and DC Plan**

System	DB Plan Enrollments	DC Plan Enrollments	Combined Plan Enrollments
Colorado PERA	88%	12%	Not offered
Florida Retirement System	76%	24%	Not offered
Michigan PSERS	75%	25%	DB is a combination plan
North Dakota Public Employees Retirement System	98%	2%	Not offered
Ohio PERS	95%	4%	1%
Ohio STRS	89%	9%	2%
South Carolina Retirement Systems	82%	18%	Not offered
Utah Retirement System	80%	20%	DB is a combination plan

"Not offered" means enrollment in a combined DB/DC plan is not offered.

*Source: L. Barney, "Given a Choice, Public Sector Employees Choose DB Over DC", Plan Sponsor, August 2017, M Offerman, "Vast majority of public employees choose DB over DC where option is available", Pension& Investments, August 2017; J.Brow and M. Larrabee, Decisions, Decisions: An Update on Retirement Plan Choices for Public Employees and Employers", NIRS and Milliman, August 2017

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Impacts of DB Plan Closure (or to New Entrants) and DC Plan

- Changing demographics can have an impact on the investment profile in later years
- Exposes employers to higher Defined Benefit funding costs in future years
- Does not save the state money
- Impacts recruitment and retention
- Does not address the unfunded liability
- Will introduce more volatility during down markets
- State and federal costs will increase in the future as the lack of retirement savings will result increased use of social services and economic assistance for many members