Decisions, Decisions: Retirement Plan Choices for Public Employees and Employers

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Why We Did This Study

• Large decline in private sector DB coverage:
  – Dropped from 76% of full time employees in 1986 to 24% in 2008

• Public employee participation remains strong:
  – Dropped from 93% of full time employees in 1987 to 88% in 2008

• Yet a handful of states have begun to offer a choice between a traditional DB pension and a DC account as the primary retirement plan.
Why We Did This Study

This paper analyzes the following questions:

– Do public employees choose the DB plan or a DC plan?
– Can employees choose their own investments?
– Can employers offer supplemental benefits in the DC?
– What are the implications of an employer choosing to change from a DB to a DC plan?
– What are the implications for risk sharing? Is there a way to shift DB risk to employees?
– Do employers give employees the chance to choose a second time?
Key Findings

1. When given the choice between a primary DB or DC plan, public employees overwhelmingly choose the DB pension plan.

2. DB plans are more cost efficient than DC plans, due to:
   – Higher investment returns
   – Longevity risk pooling
3. Some states have considered moving from a DB to a DC in an attempt to address an unfunded liability. Making this shift:
   – does nothing to close any funding shortfalls, and
   – can increase retirement costs.

4. The hybrid plan for new employees in Utah provides a unique case study, as it:
   – caps the DB funding risk to the employer, and
   – shifts the rest to employees.
Methodology: What We Did

Identified seven systems that offer a choice between DB and DC:

- Colorado Public Employees’ Retirement Association
- Florida Retirement System
- Montana Public Employee Retirement Administration
- North Dakota Public Employees Retirement System
- Ohio Public Employees Retirement System
- State Teachers Retirement System of Ohio
- South Carolina Retirement Systems
Methodology: What We Did

- Requested information directly from systems that allow new hires to choose between DB and DC.
- Systems provided the actual statistics of what percent of members have chosen each option.
- Also gave details on provisions relating to benefits and contributions.
- Each system reviewed their portion of our final report to ensure its accuracy.
Table 1. **Selected Differences Between DB Plans and DC Plans**

<table>
<thead>
<tr>
<th>Contributions</th>
<th>Defined Benefit Plan (Traditional Pension)</th>
<th>Defined Contribution Plan (such as 401(k), 403(b), 457)</th>
</tr>
</thead>
<tbody>
<tr>
<td>In the public and private sectors, contributions are made on behalf of each employee by the employer.</td>
<td>Employees make their own contributions to their savings account at whatever rate they choose.</td>
<td></td>
</tr>
<tr>
<td>In the public sector, many pensions are “contributory,” meaning that employees also contribute to the plan out of their own paychecks.</td>
<td>In the private sector, employers will often make a certain match—for example, 50 cents on the dollar up to 6% of pay—but they are not required to contribute at all. In the public sector, employers that offer a choice between DB and DC often contribute the same amount to the DC accounts as to DB accruals.</td>
<td></td>
</tr>
<tr>
<td>Investments</td>
<td>Contributions for all employees are pooled, and invested by professional asset managers in a diversified portfolio of assets—stocks, bonds, real estate, etc.</td>
<td>Investment portfolios consist of individual accounts for each employee. Employees make all investment decisions themselves, and can choose from a range of investment options offered.</td>
</tr>
<tr>
<td>Amount of Money in Retirement</td>
<td>The monthly benefit is determined by a set calculation, usually based on years of service and pay at the end of one’s career.</td>
<td>The money available in retirement is simply the amount that one has accumulated in the savings plan, through contributions and investment earnings.</td>
</tr>
<tr>
<td>Lifetime Income</td>
<td>Payouts are provided as a monthly income stream that is guaranteed for the remainder of the retiree’s life.</td>
<td>Plans are not required to offer a lifetime income option, and typically pay out benefits as a one-time lump sum.</td>
</tr>
<tr>
<td>Supplemental Benefits</td>
<td>Spousal protections, disability benefits, and cost of living adjustments are common.</td>
<td>Supplemental benefits are not applicable, and generally not available. If provided, they require extra contributions to some structure outside the DC plan.</td>
</tr>
</tbody>
</table>
Overwhelmingly, Public Employees Choose the DB Plan

Table 2. **New Hire Elections in Most Recent Complete Year***

<table>
<thead>
<tr>
<th>System</th>
<th>DB Plan Enrollments</th>
<th>DC Plan Enrollments</th>
<th>Combined Plan Enrollments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Colorado Public Employees’ Retirement Association</td>
<td>88%</td>
<td>12%</td>
<td>Not offered</td>
</tr>
<tr>
<td>Florida Retirement System</td>
<td>75%</td>
<td>25%</td>
<td>Not offered</td>
</tr>
<tr>
<td>Montana Public Employee Retirement Administration</td>
<td>97%</td>
<td>3%</td>
<td>Not offered</td>
</tr>
<tr>
<td>North Dakota Public Employees Retirement System**</td>
<td>98%</td>
<td>2%</td>
<td>Not offered</td>
</tr>
<tr>
<td>Ohio Public Employees Retirement System</td>
<td>95%</td>
<td>4%</td>
<td>1%</td>
</tr>
<tr>
<td>State Teachers Retirement System of Ohio</td>
<td>89%</td>
<td>9%</td>
<td>2%</td>
</tr>
<tr>
<td>South Carolina Retirement Systems</td>
<td>82%</td>
<td>18%</td>
<td>Not offered</td>
</tr>
</tbody>
</table>

*“Not offered” means enrollment in a combined DB/DC plan is not offered.

**Data for Colorado, North Dakota, and Ohio PERS are for January 2010 through December 2010. Data for Florida, Montana, STRS Ohio, and South Carolina are for July 2010 through June 2011.

***One new employee out of the 63 eligible joined the North Dakota DC plan in 2010.
...and Have Consistently Chosen the DB Plan over Time
The Case of Colorado PERA: “PERAChoice”

• Choice between PERA DB and DC Plan (modeled after PERA’s voluntary 401(k) Plan)
• State employees hired after 2006 (community college employees after 2008)
• Contribution rates consistent for DB and DC
• Vesting schedule in DC Plan, similar to new DB vesting schedule in SB 10-001
The Case of Colorado PERA: “PERAChoice”

- DB is default if no choice made in first 60 days
- One-time do-over “Mulligan” in years 2 – 5
  - May purchase DB service with DC $ after 1 year
  - May rollover DB member $ + interest to DC account
- Since 2006, 88% chose or defaulted into DB
- In 2010, 55% actively chose the DB plan
Vast Majorities Choose DB Even when not Default Option

Cumulative Washington PERS New Hire Elections, March 2002 through June 2011

<table>
<thead>
<tr>
<th>DB Plan Active Enrollments</th>
<th>Total Elections for DB &amp; DC Combined Plan</th>
<th>Combined DB &amp; DC Plan by Default</th>
<th>Combined DB &amp; DC Plan Active Enrollments</th>
</tr>
</thead>
<tbody>
<tr>
<td>68%</td>
<td>32%</td>
<td>21%</td>
<td>11%</td>
</tr>
</tbody>
</table>
DB Investment Returns Are Higher

- DB plans have broadly diversified portfolios and managers who follow a long-term investment strategy.
- DC participants can fall short when it comes to making good investment decisions.
- Research finds that DB plans outperform DC plans by anywhere from 80 to 270 basis points per year.
Higher Returns Add Up Over Time

How $10,000 Invested Grows over 30 Years*

*1% (100 basis point) differential
West Virginia and Nebraska Cases Confirm Findings

- Nebraska:
  - 11% return to DB vs. 6-7% in DC (1982-2002).
  - Moved all new employees back to DB in 2003.

- West Virginia:
  - DB returns of 1.6% higher than DC (2001-2010).
  - Moved all new employees back to DB in 2005.
Some Plans Offer DB Returns to DC Participants

- **Washington State (Plan 3):**
  - Option to invest in the Total Allocation Portfolio (TAP), which mirrors investments in the DB plan.
  - 56% of members’ DC assets are invested in TAP.

- **Oregon Public Service Retirement Plan:**
  - Member contributions invested in Individual Account Program (IAP), which mirrors DB investments.
  - No other investment choices offered.

- **Both of these plans are hybrid DB/DC plans.**
Death and Disability Can Be Provided to DC Participants

- **Florida:**
  - Disabled members can surrender DC balance and receive the DB plan’s disability benefits.
  - Employer pays additional 0.25% – 1.33% of pay.

- **Alaska (DC-only for all hires since 7/2006):**
  - Plan provides occupational death and disability benefit of 40% of salary (50% for police and fire).
  - Financed by additional employer contributions.

- **Provisions require additional contributions.**
Moving from DB to DC Can Increase Costs

• When faced with funding gaps, some states have looked to move from DB to DC.
• This can increase costs, because:
  1. Unfunded obligations are not reduced.
  2. Greater contributions are needed to maintain the same benefit in a DC.
  3. Maintaining two plans is more costly than one.
  4. When a DB plan is closed, payments to amortize the unfunded liability may be accelerated. This increases short term (and decreases long term) contributions.
West Virginia Teachers Case Confirms Findings

- In 1991, West Virginia closed the DB and put all new teachers into a DC plan. The state later found:
  - Unfunded obligations were not reduced.
  - DC investment returns were much lower.
  - The 4,500 members who transferred to the DC plan found it hard to retire.

- In 2005, all new hires moved back to DB. In 2008, 78% of teachers in DC opted into DB.

- State projected a $1.2 billion savings over 30 years by moving new hires from DC into DB.
# The Utah Retirement System

<table>
<thead>
<tr>
<th>All Employees Hired Before July 1, 2011</th>
<th>Employees Hired after July 1, 2011: Hybrid and DC Options</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Tier 1 DB</strong></td>
<td><strong>Tier 2 Hybrid Plan</strong></td>
</tr>
<tr>
<td><strong>Employer Contribution</strong></td>
<td><strong>Always 10% of pay</strong></td>
</tr>
<tr>
<td>Employer pays total cost with no cap</td>
<td>Always 10% of pay</td>
</tr>
<tr>
<td><strong>Employee Contribution</strong></td>
<td><strong>Automatic payroll deduction required if DB contributions are greater than 10%</strong></td>
</tr>
<tr>
<td>0% of pay into DB plan</td>
<td>Employees may contribute, but contributions are not mandatory</td>
</tr>
<tr>
<td><strong>DB Normal Cost Rate</strong></td>
<td><strong>7.50% of pay</strong></td>
</tr>
<tr>
<td>11.71% of pay</td>
<td>N/A</td>
</tr>
<tr>
<td><strong>DC Account Contribution</strong></td>
<td><strong>10% of pay less required DB contribution</strong></td>
</tr>
<tr>
<td>1.5% of pay</td>
<td>10% of pay</td>
</tr>
<tr>
<td><strong>Final Average Salary Period</strong></td>
<td><strong>5 years</strong></td>
</tr>
<tr>
<td>3 years</td>
<td>N/A</td>
</tr>
<tr>
<td><strong>Percent of Final Average Salary Replaced per Year of Service</strong></td>
<td><strong>1.5% multiplier</strong></td>
</tr>
<tr>
<td>2.0% multiplier</td>
<td>N/A</td>
</tr>
<tr>
<td><strong>Unreduced Benefit</strong></td>
<td><strong>Age 65 or 35 years of service</strong></td>
</tr>
<tr>
<td>Age 65, or 30 years of service, age 62 at 10 years of service with actuarial reductions, or age 60 at 20 years of service with actuarial reductions</td>
<td>N/A</td>
</tr>
<tr>
<td><strong>Cost of Living Adjustment</strong></td>
<td><strong>CPI up to 2.5%</strong></td>
</tr>
<tr>
<td>CPI up to 4%</td>
<td>N/A</td>
</tr>
<tr>
<td><strong>Vesting Period</strong></td>
<td><strong>4 years of service</strong></td>
</tr>
<tr>
<td>4 years of service</td>
<td>4 years of service</td>
</tr>
</tbody>
</table>

22
<table>
<thead>
<tr>
<th>Risk Type</th>
<th>Typical DB Plan (Traditional Pension)</th>
<th>Typical DC Plan (401(k), 403(b), 457)</th>
<th>Utah’s New Hybrid Plan</th>
</tr>
</thead>
<tbody>
<tr>
<td>Funding Risk</td>
<td>Employer assumes most of the funding risk. Although the employer is responsible for fully funding the plan, employees can share this risk through increased employee contributions or reduced benefits, should an unfunded liability develop.</td>
<td>Employees assume all funding risk.</td>
<td>Employees assume all funding risk above the 10% employer contribution.</td>
</tr>
<tr>
<td>Inflation Risk</td>
<td>If the plan offers a cost of living adjustment (COLA), depending on the COLAs structure, employers may assume all inflation risk, or may share the inflation risk with employees. If the plan offers no COLA, employees assume all inflation risk.</td>
<td>Employees assume all inflation risk.</td>
<td>The plan offers an automatic CPI COLA, but it is capped at 2.5%.</td>
</tr>
<tr>
<td>Longevity Risk</td>
<td>Employers assume all longevity risk.</td>
<td>Employees assume all longevity risk.</td>
<td>Employees assume DB risk in terms of any unfunded liabilities that may develop as a result of members living longer than assumed.</td>
</tr>
</tbody>
</table>
# Risks in Traditional DB and DC Plans, and Utah’s New Hybrid Plan

<table>
<thead>
<tr>
<th></th>
<th>Typical DB Plan (Traditional Pension)</th>
<th>Typical DC Plan (401(k), 403(b), 457)</th>
<th>Utah’s New Hybrid Plan</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Investment Risk</strong></td>
<td>Employer assumes most of the investment risk. The employer is responsible for making all investment decisions, however, should unfunded liabilities develop as a result of low investment returns, employees can share this risk through increased employee contributions or reduced benefits.</td>
<td>Employees assume all investment risk.</td>
<td>Employers assume all investment decisions, but employees assume investment risk in terms of any unfunded liabilities that may develop.</td>
</tr>
<tr>
<td><strong>Portability/Leakage Risk</strong></td>
<td>Employees bear portability risk, in that they are likely to receive lower benefits should they terminate before retirement. Career employees bear no leakage risk, as withdrawals cannot be taken prior to retirement. Employees who terminate before retirement may withdraw their contributions and forfeit their benefit.</td>
<td>Employees bear no portability risk, as assets accumulated in the account can be taken without penalty when terminating employment. Employees bear leakage risk, in that accounts are not always rolled over when changing jobs, and loans and pre-retirement withdrawals are often allowed, which can reduce account balances available at retirement.</td>
<td>As this plan combines a base DB benefit with a DC account, portability and leakage risks are proportionate as described in the first two columns.</td>
</tr>
</tbody>
</table>
Some States Offer “Do-Over” Options; Take Up is Rare

- Colorado, Florida, Ohio PERS, Ohio Teachers, and South Carolina offer some form of do-over.

- Florida: 53,112 employees have chosen do-over since 2002, out of 700,000 initially eligible, and 45,000-98,000 additional eligible each year since.

- Ohio PERS: 866 members have opted for do-over out of 400,000 eligible since 2003.

- Suggests that majority do not opt for do-over.
Implications

• Public employees overwhelmingly choose DB pension when given choice between DB or DC.

• DB plans more cost efficient than DC plans - higher investment returns, longevity pooling.

• DC plans lack supplemental benefits like death and disability protection. Employers can address, but provisions require extra contributions not deposited to DC account.
Implications

• A shift from DB to DC does not close funding shortfalls, can actually increase costs.

• In West Virginia, employees with only the DC plan overwhelmingly chose the DB plan when offered.

• Hybrid plan for new Utah employees provides unique case study—capped DB funding risk to the employer, shifted risk to employees.
Conclusions

• The experience in the public sector indicates that public employees highly value their DB pension benefits.
• DB pensions remain the most cost-effective way to fund a retirement benefit.
• This suggests that the public sector is unlikely to mimic the trend away from DB pensions in the private sector.
Questions?

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By Mark Olleman, FSA, MAAA, EA, and Ilana Boivie

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