The Hybrid Handbook
Not All Hybrids Are Created Equal
Webinar
May 12, 2021
Agenda

• Logistics and Introductions

• Research Review

• Q&A
Logistics

• Attendees in listen only mode.

• Question are welcome. Submit using “Question” function on control panel

• Audio/technical issues during webinar: call GoToWebinar at 1-800-263-6316

• Webinar replay and slides will be posted at nirsonline.org/reports/hybridhandbook
Speakers

Dan Doonan
NIRS Executive Director and Report Co-Author

Elizabeth Wiley
Cheiron Consulting Actuary and Report Co-Author
Variety of Plan Designs in Public Sector

**Figure 1: Overview of Hybrid Retirement Systems**

- **Hybrid:**
  - Vertical Hybrid
  - Horizontal Hybrid
- **Combining DB & DC:**
  - DB
  - DC
- **DB Risk Sharing:**
  - Cost (contribution)
  - Benefit (accruals & COLA)
- **DC with Annuitization**

**Legend:**
- DC
- DB
Design Framework

- Identify Objectives
  - Retirement Security
  - Workforce Management
  - Funding

- Consider Limitations
  - Existing Structure
  - Legal/Regulatory
  - Political

- Determine Risk Allocation
  - Investment
  - Longevity
  - Inflation
  - Agency/Political

- Select Structure and Implement

- Monitor and Revise
Public Retirement Plan Objectives

- Recruit
- Retain
- Retire

Workforce Management

- Full Career
- Partial Career
  - Hired Mid-Career
  - Hired Young

Retirement Security

- Sustainability
- Predictability
- Volatility

Funding
Public Plan Design Limitations

• Structural
  • Existing Plan/Transition Costs
  • Social Security Coverage

• Political

• Legal/Regulatory
  • State limitations on structure
  • Legal protections for benefits
Public Plan Risks and Allocations

Sponsor/Taxpayers

Investment

Longevity

Inflation

Members
Retirement Plan Designs Evaluated According to Several Different Metrics

<table>
<thead>
<tr>
<th>Key Features and Goals</th>
<th>Final Pay Pension</th>
<th>Cash Balance</th>
<th>Parallel DB/DC</th>
<th>Stacked DB/DC</th>
<th>Contribution Rate Risk Sharing DB</th>
<th>Variable Benefit DB</th>
<th>DC</th>
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<tbody>
<tr>
<td>Adequacy and provision of lifetime income to those who:</td>
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<td>• Worked a full career and retire from the plan</td>
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<td>• Mid-career hire, retire from plan</td>
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<td>• Hired young, but terminated before retirement</td>
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<td>Purchasing power preservation in retirement</td>
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<td>Benefit predictability and transparency</td>
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<td>Workforce management effectiveness</td>
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</table>
Accruals of Annual Retirement Income Vary Significantly Throughout a Worker’s Career

Figure A1: Dollars of Life Income Earned from Additional Year of Service - Full Career
Accruals of Retirement Income as a Percentage of Pay: DB Flattens, DC Heavily Frontloaded

Figure A2: Dollars of Life Income Earned from Additional Year of Service as Percentage of Current Pay - Full Career
Late Growth in DC Account Balance Driven by Returns on Earlier Contributions, Not Contributions

**Figure A3:** Annual Change in DC Account Balance and Present Value of Pension Benefits - Full Career

- **Pension**
- **DC**
DC Accruals are Limited for Mid-Career Hires Due to Limited Years for Investment Growth

**Figure B1:** Dollars of Life Income Earned from Additional Year of Service - Hired at 45

![Graph showing accrued income for pension and DC plans over time.](graph_image)
Mid-Career Hires Miss Vital Early Years in DC Plans

**Figure B2:** Dollars of Life Income Earned from Additional Year of Service as Percentage of Current Pay - Hired at 45

[Graph depicting the contrast between pension and DC retirement plans across different ages, with the pension line showing a steady increase from 0% to 4% by age 64, while the DC line shows a steady decrease from 4% to 0% by age 64.]

National Institute on Retirement Security
Mid-Career Hires Receive a Much Greater Benefit from DB Pension Plans

**Figure B3:** Annual Change in DC Account Balance and Present Value of Pension Benefits - Hired at 45

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<thead>
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<th>Age</th>
<th>Pension</th>
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Accruals Stop at Termination with Mid-Career Exit

**Figure C1:** Dollars of Life Income Earned from Additional Year of Service - Working from 25 to 45
High Value of Early DC Contributions Not Impacted by Termination

**Figure C2:** Dollars of Life Income Earned from Additional Year of Service as Percentage of Current Pay - Working from 25 to 45

- **Pension**
- **DC**
DC Account Balance Continues to Grow with Returns after Termination; DB Present Value Grows as Deferment Period Shortens

**Figure C3:** Annual Change in DC Account Balance and Present Value of Pension Benefits - Working from 25 to 45

![Graph showing the change in DC account balance and present value of pension benefits over age](Image)
Cash Balance and DC Annuitization

• Cash balance have existed in public sector since at least 1947

• Effectiveness at meeting objectives based primarily on:
  • Accruals
  • Interest
  • Annuitization
  • Adjustments related to inflation, both during employment and retirement

• Annuitized DC plans similar post retirement
Cash Balance Account Growth: Full Career

Figure 2: Annual Increase in Account Balance, with Contributions and Interest Defined - Full Career

A graph showing the annual increase in account balance from age 26 to 64, with contributions and interest credits indicated.
Cash Balance Account Growth: Mid-Career Hire

**Figure 3:** Annual Increase in Account Balance, with Contributions and Interest Defined - Mid-Career Hire

- Contributions
- Interest Credits

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<th>Age</th>
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Vertical and Horizontal Hybrid Plans Combine DB & DC Plans, but Apply Them to Different Portions of Salary

**Figure 5: Vertical vs. Horizontal Hybrids**

*Example:* Employee A earns a salary of $80,000/year

<table>
<thead>
<tr>
<th>Vertical Hybrid</th>
<th>Horizontal Hybrid</th>
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<tbody>
<tr>
<td><strong>DC</strong></td>
<td><strong>DC</strong></td>
</tr>
<tr>
<td>Remaining $20,000</td>
<td>Entire $80,000 salary</td>
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<td><strong>DB</strong></td>
<td><strong>DB</strong></td>
</tr>
<tr>
<td>First $60,000</td>
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DB Plans Share Risk Through Benefits in Two Ways

• Post-retirement benefit adjustments
  • Adjustments limited based on funded status
  • Limitations based on investment returns
  • Suspensions

• Variable benefit accruals
## Existing DB Plans Share Costs in Various Ways

### Table 2: Risk-Sharing Provisions Present in Public Plans

<table>
<thead>
<tr>
<th>Description</th>
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<tbody>
<tr>
<td>Pre-determined Contribution Split between Employee and Employer</td>
</tr>
<tr>
<td>Actuarially Determined Employer Contribution (ADEC) Split</td>
</tr>
<tr>
<td>Dividing Only the Normal Cost Between Employee and Employer</td>
</tr>
<tr>
<td>Risk-Sharing Based on Investment Returns of the Plan</td>
</tr>
<tr>
<td>Risk-Sharing Based on the Funded Status of the Plan</td>
</tr>
</tbody>
</table>
DB Plans Can Offer Attractive Benefits to Non-Career Workers

• Colorado PERA: In lieu of refunding non-vested contributions, participants can choose:
  • Leave funds, which receive interest and 50% match
  • Employer match increases to 100% at age 65
  • Annuitization of non-vested benefits at cost
    • Shares access to PERA’s efficiency & longevity pooling
    • Likely helps prevent leakage

• Index frozen benefits
Considerations in Implementing Design

• Transition procedures and considerations
  • Stakeholder communications
  • Investment adjustments
  • Workforce impacts
  • Legacy unfunded amortization

• Monitor and revise
Questions