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9-1-2008

## Redefining Traditional Plans: Variations and Developments in Public Employee Retirement Plan Design

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Brainard, Keith, "Redefining Traditional Plans: Variations and Developments in Public Employee Retirement Plan Design" (2008). *Wharton Pension Research Council Working Papers*. 304.  
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The published version of this Working Paper may be found in the 2009 publication: *The Future of Public Employee Retirement Systems*.

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## Redefining Traditional Plans: Variations and Developments in Public Employee Retirement Plan Design

### Abstract

Retiree benefits for U.S. employees of state and local governments have traditionally been paid via defined benefit (DB) plans, but this arrangement has been neither monolithic nor static. This article provides examples of variants on the traditional DB model and presents recent developments in retirement benefits for public employees, focusing on the incorporation of DC plan elements into or alongside DB plan structures.

### Disciplines

Economics

### Comments

The published version of this Working Paper may be found in the 2009 publication: *The Future of Public Employee Retirement Systems*.

# **The Future of Public Employee Retirement Systems**

EDITED BY

Olivia S. Mitchell and Gary Anderson

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Great Clarendon Street, Oxford ox2 6DP

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Published in the United States  
by Oxford University Press Inc., New York

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First published 2009

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British Library Cataloguing in Publication Data  
Data available

Library of Congress Cataloging in Publication Data  
Data available

Typeset by SPI Publisher Services, Pondicherry, India  
Printed in Great Britain  
on acid-free paper by  
MPG Books Group, Bodmin and King's Lynn

ISBN 978-0-19-957334-9

1 3 5 7 9 10 8 6 4 2

## Chapter 12

# **Redefining Traditional Plans: Variations and Developments in Public Employee Retirement Plan Design**

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*Keith Brainard*

One reason an employer may provide his or her workers with retiree benefits is to attract and retain qualified employees who seek to maximize compensation and establish a reliable source of retirement income. In the case of state and local government employment, other stakeholders may also have retirement benefit objectives. For example, taxpayers seek to ensure that cost-effective and affordable public sector retirement benefits. Likewise, recipients of public services seek public employee compensation packages that facilitate the efficient and effective delivery of the public services on which they rely.

These and other objectives can be achieved through the use of various elements of retirement plan design, including features of both defined benefit (DB) and defined contribution (DC) plans. Ninety percent of employees of state and local government in the United States have a DB plan as their primary retirement benefit (US Bureau of Labor Statistics 2000). This fact, however, obscures an array of DC features that exist within or alongside traditional DB plans, incorporated to fulfill one or more objectives of one or more retirement plan stakeholders.

This chapter presents examples of DC plan elements functioning in concert with traditional DB plans sponsored by state governments. Specifically, it details a range of plan features adopted including the cash balance plan for state and county workers in Nebraska; the earnings limitation savings account at the Minnesota Teachers' Retirement Association; the investment earnings-based Permanent Benefit Increase provision at the Arizona State Retirement System (ASRS); the deferred annuity benefit at the Minnesota Teachers' Retirement Association; and the hybrid retirement plan at the Oregon Public Employees' Retirement System. These are a few instances of DC plan elements that exist in plans sponsored by state and local governments.<sup>1</sup>

In each instance, these DC elements were established to meet one or more particular stakeholder objectives. They illustrate that DB plans

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are flexible enough to meet key objectives for stakeholders, including employers, employees, taxpayers, and recipients of public services, while preserving core elements of retirement plan design.

**Implementing a cash balance plan in the Nebraska Public Employee Retirement System**

State and county workers in the Nebraska Public Employee Retirement System (NPERS) were among the 10 percent of US state and local government employees whose primary retirement benefit had been a DC plan. Throughout the 1980s and 1990s, NPERS conducted seminars for these employees, often accompanied by a professional financial planner, in an effort to educate participants on the importance of making good choices regarding their retirement accounts: diversifying retirement assets, rolling assets upon termination to another retirement plan, etc. Despite these efforts, a large percentage of participants remained heavily invested in low-risk stable value funds, and many took a distribution when terminating or changing jobs.

In 2000, the Nebraska Legislature launched a retirement benefits adequacy study of Nebraska state and county workers. The study's results affirmed what NPERS staff had believed all along: that on both an absolute basis and relative to comparable workers in neighboring states, Nebraska state and county workers were not accumulating assets sufficient to provide adequate retirement income (Buck Consultants 2000). In response, the Nebraska Legislature in 2002 established a new cash balance (CB) plan for all newly-hired county and state workers. Existing DC plan participants were given a one-time opportunity to switch, and approximately 30 percent of them elected to do so. (In late 2007, remaining DC plan participants were given a second opportunity to switch, and an additional 4% so elected.) Pursuant to the legislation that established the new plan, employee and employer contribution rates for the CB plan were established at the same level as under the legacy DC plan: employees contribute 4.8 percent of pay and employers contribute 156 percent of the employee rate (7.49%; the employer match for counties is 150%). Public employees in Nebraska also participate in Social Security.

Rather than going into individual accounts, CB contributions are pooled and invested in a diversified portfolio of stocks, bonds, and real estate, similar to those of other public pension funds. Participants' nominal accounts are credited annually based on the greater of 5 percent or the federal mid-term rate plus 1.5 percent.<sup>2</sup> In addition, the NPERS Board may authorize a dividend credit to CB plan accounts. This credit is based on investment performance and is determined in concert with the plan's actuary. Actual

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TABLE 12-1 Earnings and dividend credit rates applied to accounts in the Nebraska Public Employee Retirement System cash balance plan, 2003–2007

<i>Year</i>	<i>Earnings Credit (%)</i>	<i>Dividend Credit (%)</i>	<i>Total Credit Applied (%)</i>
2003	5.04	NA	5.04
2004	5.19	3.08	8.27
2005	5.45	2.80	8.25
2006	6.27	13.05	19.32
2007	6.12	2.73	8.85

*Source:* Buck Consultants (2007).

credits to member accounts since the program's inception are shown in Table 12-1.

**Retirement Benefits.** The CB plan vesting period in Nebraska is three years; members may retire at age 55 with three years of service. Generally, the longer a participant waits to retire, the higher will be the benefit since an older participant has a shorter actuarial payout period. An active (working) participant who postpones retirement will increase his or her retirement benefit not only due to the shorter payout period, but also through a higher account balance resulting from additional contributions and (most years) investment earnings. Retiring participants may elect to annuitize any portion of their account balances, from 0 to 100 percent. Annuities are based on the participant's age and are adjusted based on the member's selection of optional factors, including a 2.5 percent cost-of-living adjustment (COLA), period certain options, etc. The Nebraska CB plan's assumed investment return is 7.75 percent; this assumption also applies to annuities.

**DB and DC Plan Features.** The CB plan works like a traditional DB plan in that: (a) assets are pooled and professionally invested in a diversified portfolio; and (b) participants are assured a minimum benefit by virtue of the 5 percent minimum guaranteed earnings credit. The plan functions like a DC plan in that: (a) benefits are affected by market returns; and (b) participants may take their entire balance, including employer contributions and investment earnings, as a lump sum at retirement.

As with a DC plan, the CB plan shifts some investment risk from the employer to the participant, since the employer guarantees a minimum return of 5 percent. As with a DB plan, the employer assumes investment risk of 5 percent for non-retired participants, and the employer retains longevity risk by providing an annuity based on the plan's assumed investment return of 7.75 percent.

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In the case of the Nebraska CB plan, the legislature applied the same contribution rates that were used for the DC plan, while lowering investment risk and eliminating longevity risk for plan participants who elect to take an annuity at retirement. One possible concern about the CB plan design is that by permitting retired participants to access up to 100 percent of their cash balance, the plan leaves assets vulnerable to use for purposes other than for retirement income.

**Death and Disability Benefits.** The Nebraska plan's death benefit is payable to beneficiaries based on the value of the deceased member's account, and like the retirement benefit, it may be taken either as a lump sum or an annuity. This is consistent with death benefits offered by other state and local government retirement systems, although employers often will provide a supplemental life insurance policy for their workers. Members who meet criteria for disability can qualify for an annuity calculated in the same manner as a retirement benefit: on the basis of the account value and the member's age. The only difference between the manner in which the disability and retirement benefit are calculated is that disability applicants vest immediately. The disability benefit under the new CB plan provides access for participants to a benefit with assets that are professionally invested and that reflect the participant's salary and length of service, characteristics a DC plan often does not exhibit.

**Preserving Cost Consistency.** The NPERS Board may pay a dividend only if the actuarial required contribution rate is 90 percent or less of the statutory contribution rate. This creates a contribution rate cushion that prohibits the distribution of dividends unless the plan's funding condition is sound. Since inception of the plan in 2003, the combined employer and employee contribution rate has exceeded the plan's normal cost. Combined with excess investment returns that have permitted payment of a dividend credit each year from 2004 to 2007, the plan has had an actuarial surplus since inception. As of end 2007, the plan's funding level was 103.4 percent.

**Earnings Limitation Savings Accounts (ELSAs) for the Minnesota Teachers Retirement Association**

In recent years, many states have established or expanded opportunities for retired public employees to return to employment with the same employer who sponsors their retirement benefit, without forcing them to sacrifice the benefit due to IRS limits on in-service distributions. These often are referred to as 'return-to-work' provisions. Multiple factors create demand to enable retirees to return to work, including a rising retirement rate as growing numbers of Baby Boomers move closer to retirement age;



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expanding difficulties among employers in replacing retiring workers creating employee shortages in certain fields (e.g., teachers and engineers) and geographic areas (e.g., rural areas and inner cities); increasing employee interest in phasing out of the workforce, rather than experiencing a sudden cessation of employment followed by an equally abrupt onset of retirement; and a recognition among many retirees that either their retirement income is insufficient or not what they thought or hoped it would be. An additional factor prompting demand for retirees to return to work is health care costs which continue to grow faster than the rate of general inflation and which many retirees fail to fully consider prior to retiring.

Return-to-work provisions in several states illustrate public employers' efforts to strike a balance between allowing retirees to return to work while remaining compliant with tax rules. For instance, participants in the ASRS who reach normal retirement eligibility may return to work for an ASRS employer one year after retirement, as long as there was no agreement with their employer to hire the participant at the time the participant left. Alternatively, ASRS participants who meet normal retirement eligibility criteria may return to work for an ASRS employer without waiting, as long as two criteria are met: (a) there was no agreement between the participant and the employer for the participant to return to employment; and (b) the participant may work no more than 19 hours per week for any length of time, or 20 or more hours per week for no more than 20 weeks per year. These provisions are intended to either force the employee into retirement for at least one year, or to preclude participants from returning to work in a permanent, full-time capacity. Each of these consequences creates limitations for both the employer and the employee.

Connecticut permits retired public school teachers to receive retirement benefits and to be reemployed by a local board of education, or by any constituent unit of the state system of higher education, in a position designated by the State Commissioner of Education as a 'subject shortage area' for the school year in which the former teacher is reemployed. Such employment may be for up to one full school year and may, with prior approval by the board, be extended for an additional school year. Thus, this provision also is limiting for both employers and employees.

In fact, most return-to-work provisions including those in both Arizona and Connecticut are designed to limit the amount of time annuitants may work for their employer/retirement plan sponsor. These limits prove to be a hindrance to public employers' ability to fill certain positions and ensure the consistent delivery of certain public services. Another challenge with return-to-work provisions is one of public perception, since the idea of a public employee simultaneously receiving a paycheck and an employer-sponsored retirement benefit may provoke controversy and ill will toward public employees and their retirement benefits.

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The Minnesota Teachers' Retirement Association (TRA) administers a program designed to remove barriers to return to teaching after retirement. Prior to 2000, in accordance with the rules then in place, any pension benefits withheld from retirees due to 'excess' earnings, reverted to the TRA Fund.<sup>3</sup> Because returning retirees did not wish to forfeit pension benefits, this policy created a disincentive to return to work and limited the ability of school districts to attract retired teachers to return. Motivated by statewide teacher shortages, Minnesota established a method in 2000 that would accommodate the needs of both public school employers and retired public school teachers who sought to return to work, while not limiting the returning employee's earnings or the length of time worked. This was accomplished by incorporating certain DC plan elements into the return-to-work provision, known as earnings limitation savings accounts (ELSAs).

Under Minnesota state law, teachers under age 65 who resume teaching for a TRA-covered employer after retirement are subject to an annual earnings limitation based on the Social Security rules. If a member earns more than the Social Security earnings limitation (\$13,560 in calendar 2008), the annuity payable during the following calendar year is offset by \$1 for each \$2 earned in excess of the limitation.<sup>4</sup> Under the ELSA program, rather than confiscating a portion of the member's pension benefit and returning it to the TRA fund, the offset amount is deferred into an individual account that earns 6 percent annually. Members in the ELSA program do not make a contribution to the TRA pension benefit or earn additional service credit, and TRA employers do not pay pension contributions for their rehired annuitants. On the later of reaching age 65 or one year after termination of the TRA-covered employment that gave rise to the limitation, participants may receive a lump-sum payment of the total offset amount plus 6 percent interest compounded annually. (As of this writing, the yield on a 10-year US treasury bill is below 4.0 percent, making a guaranteed rate of 6 percent appear generous.) The TRA does not annuitize ELSAs; all or any portion of the payment may be rolled over to a traditional IRA or an eligible employer plan. ELSAs are nominal accounts invested by the same entity—the State Board of Investments—that invests the Minnesota state pension fund assets. ELSA assets are invested in the same manner as other assets in the TRA Fund, so the ELSA accounts are not individually managed by their account holders.

According to the TRA, some ELSA participants have expressed interest in annuitizing these accounts. Also some have complained about the required delay in accessing accounts until age 65 at the earliest: a participant who retires at 58 and returns for two years must then wait at least five years prior to being able to access his ELSA. ELSA members are able to designate a

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beneficiary for their accounts in the event of their death before distribution of their ELSA account.

As of June 2007, TRA had 1,389 retirees (3% of all benefit recipients) who had exceeded the earnings limitation since the program's inception and established an ELSA account. The total dollar value of ELSA accounts totaled approximately \$18 million. The TRA or its actuarial consultant have not studied the possible effects of the ELSA program and whether school districts have chosen to rehire annuitants in lieu of hiring new teachers who would otherwise contribute to TRA. As structured, no actuarial cost is linked to this program since ELSA account holders are eventually paid their promised monthly benefits, albeit delayed until after age 65. This structure enables the ELSA program to avert allegations of so-called 'double-dipping.'

### **Investment earnings-based permanent benefit increase at the Arizona State Retirement System**

Approximately two-thirds of state and local government pension plans provide their annuitants with some form of automatic cost-of-living adjustment (NASRA/NCTR 2007). Known as COLAs, these serve as a hedge against inflation which will erode the value of a retirement benefit. For example, over a 20-year period, an annual inflation rate of 3 percent will erode the value of a retirement benefit by 44 percent. Thus, the purchasing power of a \$2,500 monthly benefit for a public school teacher retiring at age 65 will decline to \$1,359 by age 85 (which is the median life expectancy of a 65-year-old female.) If she lived to age 95, the real value of her fixed nominal benefit would fall to \$1,033. Most public pension plans that do not provide an automatic COLA periodically will approve either a permanent benefit increase or a one-time increase, sometimes known as a '13th check.' Some public funds such as the Teacher Retirement System and Employee Retirement System of Texas limit the legislature's authority to approve an ad hoc COLA based on the plan's actuarial funding status.

According to the Public Fund Survey, some public pension automatic COLAs are linked to changes in the consumer price index (CPI). These COLAs usually are capped, such as not to exceed 2 percent or 3 percent in one year. Some are established as a specific rate, such as 2 percent or 3 percent of the benefit, regardless of the CPI. Most automatic COLAs are compounded, meaning they are applied to the previous year's COLA-adjusted amount; those that are not compounded are known as simple, meaning that the COLA is applied to the annuitant's original benefit (NASRA/NCTR 2007). An automatic COLA is a relatively expensive benefit

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provision. For example, the South Carolina Legislature approved an automatic 1 percent COLA for current and future retirees of the South Carolina Retirement System. The projected cost of this benefit enhancement over the plan's 30-year funding period added \$2.2 billion to the plan's \$26 billion liability, resulting in a required increase to the contribution rate of approximately 2 percent of worker pay.

Employers and employees participating in the ASRS pay matching contribution rates determined by actuarial valuation. Other factors held equal, actuarial investment returns in excess of the plan's 8 percent return assumption reduce required contribution rates for both employers and employees. Likewise, returns below the assumption increase required contribution rates. Until 1994, annuitants in the ASRS relied on the legislature to provide periodic ad hoc COLAs. In that year, the state legislature approved an earnings-based permanent benefit increase (PBI) which provides a permanent benefit increase for ASRS annuitants funded with investment earnings above the plan's 8 percent investment return assumption.<sup>5</sup> If the ASRS fund's actuarial investment return were 10 percent, for example, the portion of the 'excess' 2 percent return (the difference between 10% and 8%) attributable to annuitants (retirees, beneficiaries, and disabilitants) would be set aside to increase benefits.

To calculate the amount of the increase, the plan's actuary pro-rates the portion of investment earnings that apply to current annuitants. The PBI provision limits the amount of the increase in any one year to 4 percent of the plan's annual retirement benefit liability; any amount over the 4 percent is set aside to fund increases in future years. The amount divided among annuitants is not based on the value of each annuitant's benefit, but rather on the basis of the annuitant's years of service credit. Thus, annuitants are rewarded for longer service, not higher salary. Annuitants with different final average salaries (which are used to calculate retirement benefits) but the same number of years of service will receive the same benefit adjustment. For the plan's annuitants, the timing of creating the PBI could not have been better. The period from 1995–2000 was marked by strong investment returns, and the ASRS fund participated in these returns. The PBI provision produced a benefit enhancement every year from 1994 through 2005, despite the fact that the fund experienced poor returns (as did most investors) in fiscal years 2001–03. This is because investment earnings generated during 1995–2000 were in excess of the 4 percent limit. For an annuitant retired before 1994 with the plan average of 18.6 years of service and an average monthly benefit, the average annual benefit increase from 1994 through 2005 was 3.3 percent, increasing the monthly benefit of an average annuitant by 45 percent, from \$852 to \$1,238.<sup>6</sup> The average increase in the CPI during this period was 2.5 percent. Because the benefit increase is based not on the base value of the benefit,

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but on the participant's years of service, the percentage increase varies by annuitant. Annuitants with lower earnings during their working years but who retired with the same number of years of service credit as an average salaried earner, received benefit increases higher than the average. The year 2006 was the first since the program's inception that annuitants did not receive a benefit enhancement.

When the PBI was established in 1994, the ASRS used a five-year smoothing period to calculate its actuarial investment return. In 2003, the ASRS switched to a 10-year smoothing period to calculate the actuarial value of assets. The ASRS also established a new, 10-year timeframe for calculating the PBI, beginning with 2002. Because of the poor investment returns in FY 02 and FY 03, notwithstanding strong returns in FY 04–07, the fund is unlikely to distribute a benefit increase in the foreseeable future.

In the absence of the PBI, an automatic COLA, or ad hoc COLAs, the value of ASRS annuitant benefits would have been diminished by inflation, and the benefits of strong investment earnings would have been limited to the plan's active members, employers (taxpayers), and future taxpayers. The PBI permits annuitants to participate in the 'excess' investment earnings generated by the ASRS fund and reduces their exposure to inflation risk. By creating a mechanism to provide a COLA that is not automatic, the Arizona Legislature avoided creating an unfunded liability, although the PBI does reduce funds that would otherwise have been available to offset investment returns below the assumed rate.

The ASRS actuary acknowledges that without the PBI, the ASRS contribution rate would be lower than it is currently, although he has not calculated precisely how much lower. The actuary also has estimated that an automatic COLA of 1 percent would require an increased contribution rate of 3.62 percent. In calculating the cost of ASRS liabilities, the actuary assumes an investment return of 8 percent, meaning that no assumption is made for payment of a PBI. Of course, by allocating a portion of 'excess' investment earnings, the PBI provision reduces assets that would be available to offset negative actuarial experiences, including periods of actuarial returns that are lower than expected. But if the alternative to the PBI were to be a typical automatic COLA, the PBI would result in an actuarial cost only with assets that already have been accrued, thereby reducing the risk to the plan sponsor (and active annuitants, whose contribution rate also is affected by the plan's actuarial experience) of unfunded liabilities that would accrue automatically.

The value of a DC plan is a function of contributions to the individual account plus investment earnings less expenses. Retirement income produced by a DC plan thus depends on the value of each individual's account and investment earnings. Once a participant stops contributing

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to his retirement plan (as typically occurs in retirement), the value of his DC account—and the income the account generates—becomes limited by its investment performance. As with a DC plan, the PBI allows individual account holders to benefit from strong investment returns and to suffer the effects of inflation when returns are poor.

By establishing an earnings-based COLA, the ASRS has created a mechanism to reduce annuitants' inflation risk, paid for with a combination of current and future active members and current and future employers (taxpayers). Also, by recognizing the basis on which the plan will pay a COLA, the plan increases the likelihood that the COLA will be pre-funded rather than imposing the full cost of the COLA on future taxpayers.

**Deferred annuity benefit at the Minnesota Teachers Retirement Association**

Employee turnover is a fact of life for employers in every economic sector, regardless of the type of retirement plan an employer offers. Actuarial assumptions used for public DB plans recognize that many participants will leave the plan before they begin to draw a retirement benefit, or they will withdraw their assets rather than taking a retirement benefit. From the standpoint of the retirement plan, a problem with turnover is that retirement assets may be diminished through forfeiture of employer contributions and, in the case of DB plans, through low interest rates (if any) paid on assets of withdrawing participants. Terminating employees who are vested in their DB plans and who elect to leave their assets with the plan are exposed to inflation risk. The farther away is the terminating participant from drawing his retirement benefit, the greater the inflation risk exposure. Thus, DB plan participants who leave before qualifying for retirement benefits usually face unpleasant choices: either withdraw their contributions with little or no interest, thereby abandoning their employer's contributions, or leave their contributions with the plan until they reach retirement, exposing their future retirement benefit to inflation.

To address the problem of DB plan asset loss, the Minnesota Teachers' Retirement Association maintains a so-called deferred retirement annuity benefit, available to vested members (after three years) who terminate prior to reaching the plan's minimum retirement age of 55. To qualify for the benefit, terminating participants must leave their contributions with the TRA. Upon reaching retirement eligibility which occurs as early as age 55 for a reduced retirement benefit and age 66 for a normal (unreduced) retirement benefit, a participant may begin to receive a retirement benefit

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(TRA 2008). The deferred annuity benefit is calculated in the same manner as for other, non-terminating participants, by multiplying the participant's years of service by his or her final average salary, and by the TRA retirement multiplier of 1.7 percent. The calculation for deferred annuity participants then is increased by 2.5 percent for each year since the participant terminated. This 2.5 percent escalator (which is greater for workers hired prior mid-2006) can partially offset the effects of inflation between the time the participant terminates and when the participant begins taking his retirement benefit.

A comparison of the difference the TRA deferred annuity benefit can make to a terminating participant's retirement benefit is shown in Table 12-2. Here we compare two plans, A and B. Plan A does not offer a deferred annuity benefit while Plan B does. Normal retirement eligibility in both plans is age 66 with at least three years of service, and the retirement multiplier is 1.7 percent of salary. A participant terminating employment at age 46 with 20 years of service and a final average salary of \$50,000 in Plan A will receive an annual pension benefit of \$17,000 on reaching age 66, as long as he or she leaves his or her contributions with the plan. An inflation rate of 3 percent will reduce the real value of that benefit by nearly 46 percent, to \$9,245. The same employee participating in Plan B with the deferred annuity benefit would also qualify for a pension beginning at 66. But because the deferred annuity benefit has increased the value of the benefit by 2.5 percent each year, at age 66, the Plan B participant will receive an annual benefit of \$27,856, (\$15,378 on an inflation-adjusted basis) a reduction in the real value of the benefit of just 9.5 percent, compared to the \$17,000 that Plan A will provide.

A terminating participant who elects to refund his contributions plus the 6 percent interest may invest his withdrawn retirement assets and purchase an annuity comparable to that provided by the TRA. The TRA deferred annuity benefit provides a mechanism for terminating participants to secure a retirement annuity protected (largely) from inflation and one that enables the participant to avoid the task of rolling over his assets and making investment decisions for the remainder of his working and retired life.

The cost to the TRA of the deferred annuity benefit is estimated to be 0.45 percent of payroll. This cost represents the actuarial gain the plan would realize if terminating participants who take advantage of the deferred annuity benefit, instead withdrew their benefits, leaving the employer's contributions with the plan. The TRA deferred annuity benefit is like a DC plan in that it permits retirement assets to continue growing despite the plan participant's terminating employment, just as DC plan assets would; and by enabling the withdrawn participant to receive the employer's contributions.

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TABLE 12-2 Comparison of inflation-adjusted benefit with and without the Minnesota Teachers' Retirement Association deferred annuity benefit

<i>Year</i>	<i>Plan A</i> (\$)	<i>Plan B</i> (\$)
	17,000	17,000
1	16,490	16,915
2	15,995	16,830
3	15,515	16,746
4	15,050	16,663
5	14,598	16,579
6	14,161	16,496
7	13,736	16,414
8	13,324	16,332
9	12,924	16,250
10	12,536	16,169
11	12,160	16,088
12	11,795	16,008
13	11,441	15,928
14	11,098	15,848
15	10,765	15,769
16	10,442	15,690
17	10,129	15,611
18	9,825	15,533
19	9,530	15,456
20	9,245	15,378

*Source:* Author's calculation as described in text, drawing on information from TRA (2008).

### **Individual account plan sponsored by the Oregon Public Employees' Retirement System**

In the face of falling DB plan funding and sharply higher, and unsustainable, projected costs, the Oregon governor and legislature revised the plan design of the Oregon Public Employees' Retirement System (PERS) in 2003. It terminated an old DB plan design whose cost had become unsustainable and established mandatory participation in both a DC and a DB plan. Since 2004, all mandatory employee contributions to PERS have been directed to the DC component of the retirement benefit, known as the Individual Account Plan, or IAP. With these changes, the Oregon governor and legislature were able to contain what had become



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unsustainable liability growth while preserving desirable features of both DB and DC plans.

PERS is the predominant public retirement system in the state, providing retirement and other benefits for employees of the state, public schools, and most political subdivisions. It includes over 160,000 active members and more than 100,000 annuitants. Combined assets held in the Oregon DB fund exceed \$60 billion. PERS has long featured a retirement plan design containing both a DB and a DC plan, an atypical combination among state and local governments. Until 2003, the DB plan retirement multiplier had been 1.67 percent (the median public fund multiplier is 1.85%; NASRA/NCTR 2007). The accompanying DC component permitted participants to benefit from market gains with no exposure to downside risk. For example, if the fund containing DC plan accounts earned 15 percent in a year, participants got nearly all of that credited to their accounts. If the fund return was negative, participants still received a guaranteed 8 percent earnings credit.

Consecutive years of negative returns in 2001 and 2002 eroded the plan's funding level, which then declined precipitously, and projected plan costs were rising to unsustainable levels requiring projected employer contribution rates well above 20 percent. The Oregon governor and legislature responded by devising a new plan that reduced the DB plan retirement factor to 1.5 percent and also eliminated the guaranteed earnings feature in individual accounts. The new IAP features individual accounts invested in the same portfolio as the \$60+ billion PERS DB plan, so DC plan assets are now managed by the same professional investors who manage the big DB fund, relieving participants of the responsibility for managing their retirement assets. Moreover, investing in the DB fund costs less than most DC plans, and gives participants exposure to asset classes such as real estate and private equity, that they are unlikely to otherwise have access to in other DC plan accounts. Participants contribute 6 percent of pay to the IAP, and employers may (and most do) make the contribution on participants' behalf. Employer contributions finance the DB portion of the benefit. Upon retirement, in addition to their DB plan benefit, participants may elect to take their IAP assets either as a lump sum, in equal installments over a 5, 10, 15, or 20-year period, or as an annuity based on the account balance and participant's age.

IAP management costs have declined each year since the plan was established in 2004: 39 basis points in FY 07, down from 53 basis points in FY 06 and 86 bp in FY 05. Plan costs may continue to decline if growth in asset values outpaces growth in expenses, many of which are fixed. Low costs are an important factor contributing to participants' ability to accumulate retirement assets. Due to robust investment returns and low costs, the combined value of its individual accounts has grown to \$1.9 billion in 2007

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TABLE 12-3 Earnings credit applied to individual accounts in the Oregon Public Employee Retirement System, 2004–2007

<i>Year</i>	<i>Earnings Credit (%)</i>
2004	12.77
2005	12.80
2006	14.98
2007	9.46

*Source:* PERS (2008).

since plan inception. The IAP's low costs are enabled by annual, rather than daily, updating of account values and by investing IAP assets solely in the PERS fund, in which investment costs are less than 50 basis points. Although this is higher than other public pension funds of similar size, the Oregon Investment Council which invests the PERS assets has a long and successful investment track record, consistently outperforming most of its peers. This outperformance is attributable partly to higher-than-average allocations to alternative assets, including private equities.

Retiring participants who elect to annuitize or to withdraw their assets over a certain period (rather than withdraw them as a lump sum) continue to benefit from pooling, professional asset management, and alternative asset classes. Table 12-3 shows earnings credited to individual accounts since their inception in 2004. The earnings credit reflects the amount available for distribution and takes into account the fund's investment return and all expenses.

Employer response to the new plan design has been positive since the reforms stabilized liability growth and reduced both costs and cost volatility. Controlling plan liabilities and costs was particularly important to Oregon public employers and taxpayers, considering how high those costs had been projected to rise. In concert with other plan design changes, the establishment of mandatory individual accounts and investing them with professionals in a common fund is a central feature of the new plan design that has restored the sustainability of retirement benefits for public employees while leveraging key features of both traditional DB and DC plans.

Other states, including Washington, Ohio, and Indiana maintain retirement plan designs similar to that in Oregon, in which a DC plan accompanies mandatory participation in a DB plan. Table 12-4 presents and compares key features of these retirement plan designs.

TABLE 12-4 Defined benefit plans with mandatory defined contribution components sponsored by state governments

	<i>Indiana PERF</i>	<i>Indiana TRF</i>	<i>Washington DRS</i>	<i>Ohio PERS</i>	<i>Ohio STRS</i>	<i>Oregon PERS</i>
Applicable group(s)	Mandatory for all participants	Mandatory for all participants	Optional	Optional for new hires and non-vested workers since 2002	Optional for new hires & non-vested workers from 2001	Mandatory for new hires since August 2003
Normal retirement age/yrs of service	65/10, 60/15, Rule of 85 at age 55	65/10, 60/15, Rule of 85 at age 55	65/5	60/5, 55/25, any/30; 48/25 law enforcement	60/5	65/any, 58/30; 60/any, 53/25 public safety
DB plan multiplier	1.1%	1.1%	1.0%	1%; 1.5% for years > 30	1.0%	1.5%; 1.8% for fire and police
Employer funds DB plan benefit?	Yes	No pre '96 hires; yes since	Yes	Yes	Yes	Yes
Social security?	Yes	Yes	Yes	No	No	Yes
Employer contribution to DC plan	Employers (ER) may make contributions which vest immediately. State makes contributions for its EEs.	ERs may elect to make EE contributions, which vest immediately	No	ER contributions divided among DB, DC, D&D & retiree health care. Five-year vesting period for ER contributions	ER contributions divided among DB portion, DB UAAL, and retiree health care. 5-year vesting period for ER contributions	ERs may elect to make EE contributions

(cont.)

TABLE 12-4 (Continued)

	<i>Indiana PERF</i>	<i>Indiana TRF</i>	<i>Washington DRS</i>	<i>Ohio PEERS</i>	<i>Ohio STRS</i>	<i>Oregon PERS</i>
Employee DC plan contribution	3.0%	3.0%	5% to 15%, depending on EE election	9.5%, including 0.1% for admin fees	10.0%	6.0%
DC plan investment options	Six investment options administered by the fund, ranging from conservative to aggressive	Six investment options administered by the fund, ranging from conservative to aggressive	Either the Total Allocation Portfolio, which mirrors DB plan fund, or 10 self-directed funds ranging from conservative to aggressive plus balanced funds	Nine sponsored options ranging from conservative to aggressive.	Eight options ranging from conservative to aggressive and a guaranteed return option	All DC plan contributions are invested in the DB plan fund

Default DC plan investment option	Guaranteed Fund earns a rate established annually by the Board. Current rate is 6%.	Guaranteed Fund rate established annually by Board. Current rate is 6%.	Total Allocation Portfolio, which mirrors the DB plan fund	Moderate pre-mixed portfolio	Money market fund	DB plan fund
DC plan withdrawal options	Annuity, rollover, partial lump sum (LS) and annuity, deferral until age 70 <sup>1</sup> / <sub>2</sub>	Annuity, rollover, partial LS and annuity (limited to after-tax assets), deferral until age 70 <sup>1</sup> / <sub>2</sub>	DB plan fund: LS, direct rollover, scheduled payments & personalized payment schedule. Self-Directed: same as DB plan fund, plus annuity purchase	Annuity; partial distributions; payments for guaranteed term; mo'y payments of designated amount; deferral until age 70 <sup>1</sup> / <sub>2</sub>	Annuity; LS and rollover	LS payment or equal installments over 5, 10, 15, or 20-year period.
Info online	<a href="http://www.in.gov/perf">www.in.gov/perf</a>	<a href="http://www.in.gov/trf">www.in.gov/trf</a>	<a href="http://www.drs.wa.gov">www.drs.wa.gov</a> (Go to 'my plan 3 account')	<a href="http://www.opers.org">www.opers.org</a>	<a href="http://www.strsoh.org">www.strsoh.org</a>	<a href="http://oregon.gov/PERS">oregon.gov/PERS</a> (Click on OPSRP & IAP)

Source: Author's compilation based on data provided by plan sponsors; see 'Info Online.'

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### Conclusion

This chapter focuses on instances where DC plan elements have been incorporated into or alongside DB plan structures sponsored by US state and local governments. The cases described include the cash balance plan administered by the Nebraska Public Employees' Retirement System; the Earnings Limitation Savings Accounts and Deferred Annuity Benefit sponsored by the Minnesota Teachers' Retirement Association; the Permanent Benefit Increase sponsored by the Arizona State Retirement System; and the hybrid retirement plan sponsored by the Oregon Public Employees' Retirement System. Each of these and similar mixed plan designs were implemented to accomplish one or more particular stakeholder objectives. These plan designs may offer lessons to employers and others seeking opportunities to rebalance various and sometimes competing stakeholder objectives, such as redistributing risks or costs, enhancing benefits, and promoting longer employment.

### Notes

- <sup>1</sup> Other examples of DC elements incorporated into state-sponsored DB plans not discussed here include options to increase the portability of pension assets by permitting the purchase and transfer of retirement benefit service credits among public retirement systems and in some cases, from service earned in the private sector to public retirement systems; partial lump sum options, which permit retiring public employees to take a portion of their annuity as a lump sum with an actuarial reduction in their annuity; deferred retirement option plans, which permit retiring public workers to continue working and defer their retirement benefit into an individual account, where it is invested by the plan sponsor until the worker ceases employment; automatic enrollment in a supplementary DC plan for workers whose primary retirement benefit is a DB plan; and establishment of cash balance plans in lieu of participating in Social Security.
- <sup>2</sup> The federal mid-term rate is based on the average market yield of outstanding market obligations of the United States with maturities of at least three but not longer than nine years.
- <sup>3</sup> Prior to 2000, there was an annual earnings limit for retirees under age 65 and a higher earnings limit for retirees age 65–69. For ages under 65, the penalty was \$1 for every \$2 over the earnings limit. For retirees ages 65 to 69, the penalty was \$1 for every \$3 over the higher earnings limit. Retirees age 70 and older had no earnings limitation.
- <sup>4</sup> Members who reach normal retirement age (65, 10 months for those born in 1942) can earn \$36,120 between January 1, 2008 through the month prior to turning age 65 and 10 months. Members reaching the full retirement age by January 1, 2008 are not subject to the earnings limitation.
- <sup>5</sup> This statute has been modified since its inception to pay a COLA up to the full increase in the CPI, rather than one-half; to lower the threshold of investment

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return from 9 percent to 8 percent; and to increase the maximum annual adjustment from 3 percent to 4 percent. See Arizona State Legislature (2008).

<sup>6</sup> Based on data provided to the author by the Arizona State Retirement System.

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