Decisions, Decisions:

Retirement Plan Choices for Public Employees and Employers

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

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ABOUT THE AUTHORS

Mark Olleman
Mark Olleman is a Consulting Actuary and Principal in the Seattle office of Milliman, Inc. He has been with the firm since 1990 providing actuarial services for Milliman's defined benefit clients from Alaska to Texas. Mr. Olleman is a frequent speaker on public employee retirement issues and has authored several articles. He works with his clients on a wide variety of services including actuarial valuations, economic and demographic experience studies, asset/liability modeling, cost projections, plan design, funding strategies, and communications. He is a Fellow of the Society of Actuaries, a Member of the American Academy of Actuaries, and an Enrolled Actuary. He has a Bachelor of Science degree from Whitworth University in Mathematics and Chemistry.

Ilana Boivie
Ilana Boivie is Director of Programs for the National Institute on Retirement Security. An economist, she conducts original research and analysis regarding U.S. retirement issues, and assists with the overall strategic direction of NIRS' programming. She was the lead author of *Pensionomics: The Economic Impact of State and Local Pension Plans*, and has been instrumental in NIRS' research and educational programs for over three years. Ms. Boivie is a frequent speaker on pension and economic matters, and has testified before policymakers regarding her research. She holds a Master of Arts in economics from New Mexico State University, and a Bachelor of Arts in English from Binghamton University, where she graduated Magna Cum Laude.

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EXECUTIVE SUMMARY

In 2008, 14.7 million active state and local government employees had defined benefit (DB) pension coverage through their employers.[1] DB pensions play an important role in the human resource strategies of government employers. DB pensions have been shown to be an effective retention tool, and government employers are well suited to offer them. At the same time, DB pensions are highly valued by employees in the public sector. Pensions' staying power in the public sector stems from the fact that these systems serve employees, employers, and taxpayers well.[2]

In recent years, however, a handful of states have begun to offer public employees a choice between a traditional DB pension and a defined contribution (DC) account as their primary retirement plan.

This paper studies those states that offer employees a choice between primary DB and DC plans, and finds that:

- When given the choice between a primary DB or DC plan, public employees overwhelmingly choose the DB pension plan.
- DC plans are less cost efficient than DB plans, due to lower investment returns, and the lack of longevity risk pooling.
- Some states have considered moving from a DB-only to a DC-only structure in an attempt to address an unfunded liability. Making this shift, however, does nothing to close any funding shortfalls, and can actually increase retirement costs.
- Traditionally, employers bear most of the risk in DB plans, and employees bear most of the risk in DC plans. The hybrid plan for new employees in Utah provides a unique case study, in that it has capped the DB funding risk to the employer, and shifted the rest to employees.

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

INTRODUCTION

DB Plans and DC Plans Are Very Different

Defined benefit (DB) pension plans are designed to provide employees with a predictable monthly benefit for life. The amount of the monthly pension is typically a function of the number of years an employee devotes to the job and the worker's pay, usually at the end of his or her career. This plan design is attractive to employees because of the security it provides. Employees know they will have a steady, predictable income that will enable them to maintain a stable portion of their pre-retirement income.

DB plans are pre-funded retirement systems. That is, employers—and, in the public sector, employees—make contributions to a common pension trust fund over the course of each employee's career. These funds are invested by professional asset managers whose activities are overseen by trustees and other fiduciaries. The earnings that build up in the fund, along with the dollars contributed while working, pay for the lifetime benefits an employee receives when s/he retires.

Defined contribution (DC) plans, such as 401(k) plans, function very differently than DB plans. First, there is no implicit or explicit guarantee of retirement income in a DC plan. Rather, employees (and usually employers) contribute to the plan over the course of a worker's career. Whether the funds in the account will ultimately be sufficient to meet retirement income needs will depend on a number of factors, such as the level of employer and employee contributions to the plan, the investment returns earned on assets, whether loans are taken or funds are withdrawn prior to retirement, and the number of years retirees will live after they leave work.

DC plans consist of separate, individual accounts for each participant. Plan assets are typically "participant directed," meaning that each individual employee can decide how much to save, how to invest the funds in the account, how to modify these investments over time, and at retirement, how to withdraw the funds.

Along with differences in contributions and investments during employees' careers, another important difference between DC and DB plans becomes apparent at retirement. Unlike in DB plans, where retirees are entitled to receive regular, monthly pension payments for life, in DC plans it is typically left to the retiree to decide how to spend one's retirement savings. Research suggests that many individuals struggle with this task. Since they find it difficult to estimate how long they will live, they either draw down funds too quickly and run out of money, or hold onto funds too tightly and self-impose a lower standard of living as a result.[3] In theory, employers that offer DC plans could provide annuity payout options, but in practice they rarely do.[4] See Table 1.

Public Plan DB/DC Choices

Unlike employees in the private sector, who have seen a drastic decrease in DB plan coverage, most public employees still participate in a DB plan. For example, a 2008 study by the Bureau of Labor Statistics (BLS) showed that whereas private sector participation in DB plans dropped from 76% of full time employees in 1986 to 24% in 2008, public employee

Table 1. **Selected Differences Between DB Plans and DC Plans**

	Defined Benefit Plan (Traditional Pension)	Defined Contribution Plan (such as 401(k), 403(b), 457)
Contributions	In the public and private sectors, contributions are made on behalf of each employee by the employer. In the public sector, many pensions are "contributory," meaning that employees also contribute to the plan out of their own paychecks.	Employees make their own contributions to their savings account at whatever rate they choose. 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.
Investments	Contributions for all employees are pooled, and invested by professional asset managers in a diversified portfolio of assets—stocks, bonds, real estate, etc.	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.
Amount of Money in Retirement	The monthly benefit is determined by a set calculation, usually based on years of service and pay at the end of one's career.	The money available in retirement is simply the amount that one has accumulated in the savings plan, through contributions and investment earnings.
Lifetime Income	Payouts are provided as a monthly income stream that is guaranteed for the remainder of the retiree's life.	Plans are not required to offer a lifetime income option, and typically pay out benefits as a one-time lump sum.
Supplemental Benefits	Spousal protections, disability benefits, and cost of living adjustments are common.	Supplemental benefits are not applicable, and generally not available. If provided, they require extra contributions to some structure outside the DC plan.

participation in DB plans only dropped from 93% of full time employees in 1987 to 88% in 2008.[5]

Thus, while private sector DB coverage has declined in the last two decades, public sector coverage has remained relatively stable;[6] most state and local government employees still provide DB pension coverage to their employees. Yet a handful of states have begun to offer public employees a choice between a traditional DB pension and a DC account as the primary retirement plan.

This paper analyzes the following questions:

- When given the choice, what do public employees choose: the DB pension plan or a DC plan?
- What happens when employees choose their own investments?
- Can employers choose to offer meaningful supplemental benefits to DC members?
- What are the implications of an employer choosing to change from a DB to a DC plan?
- What are the implications for risk sharing in each of the systems, and is there a way to shift some of the risk to employees under the DB system?
- Finally, do employers give employees the chance to choose a second time?

This paper looks at the recent experience of statewide retirement systems that offer a choice between DB and DC plans, and seeks to provide some answers.

To conduct the study, we requested information directly from the retirement systems that allow new hires to choose between DB and DC. These systems provided the actual statistics of what percent of members have chosen each option. We also asked for other important provisions relating to benefits and contributions. Finally, each system reviewed their portion of our final report to ensure its accuracy. This primary source material provides a valuable insight into what really happens when public employees are allowed to choose between DB and DC.

OVERWHELMINGLY, PUBLIC EMPLOYEES CHOOSE THE DB PLAN

Although there is a common perception that DC plans may be more attractive to new employees than DB plans, relevant research seems to show the opposite—especially among state and local employees. Recent public opinion polling finds that DB plans are highly valued by public employees and are an important consideration for those who choose a career in public service.

A 2006 nationally representative survey indicated that public employees were much more favorable to traditional DB pensions and much less likely than other workers to express a preference for 401(k)-type plans.[7] When asked about proposals to switch public employees out of DB plans and into 401(k)-type plans, public employees were strongly opposed.[8] A 2003 survey also found that public employees place a very high value on their pension programs, with almost two-thirds of public sector employees stating a preference in favor of DB pensions as compared with DC plans.[9]

So, what do public employees really prefer? Seven statewide systems have been giving new hires the choice between participating in a DB plan or a DC plan for various periods over the last 12 years. These systems are 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, and South Carolina Retirement Systems. Tables 2 and 3 and Figure 1 summarize the experience of these systems, all of which allow their members to choose between a DB plan and a DC plan. Ohio and Washington members also have the choice of a "combined" plan, where employer contributions fund a DB plan and employee contributions fund a DC plan. Washington state members do not have the option of an all-DC plan.

Across the board, the experience of these seven systems indicates that public employees overwhelmingly choose the DB plan. In the most current year, North Dakota's DB plan has the highest take up rate at 98%; the lowest DB take up rate is in Florida, which still saw a full 75% of employees opting for the DB pension. This means the percentage of new employees electing DC plans currently ranges from 2% in North Dakota to 25% in Florida.

The trend of overwhelming DB coverage in states with a choice has been consistent over time. As shown in Figure 1, the DB take up rates in all of these states have been above 70% in all years, and three of the states have take-up rates of 90% or more during most years studied.

It should be noted, however, that many employees who do not actively elect one plan or another are defaulted into the DB plan. Unlike the private sector which uses defaults into 401(k) savings plans to build plan participation rates, most workers in the public sector are covered by a retirement plan as a condition of employment. Defaulting employees into the traditional DB plan is similar to a private-sector employer investing employee contributions into an appropriate investment allocation with the intent of reducing risk to the participant.

The overwhelmingly high take-up rates, then, could be at least partially driven by inertia on the part of employees, a large number of whom do not make an affirmative choice. In most states with choice, members must actively choose the DC plan; it is often the case that many DB members never submit an election and are placed in the DB plan by default.

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

System	DB Plan Enrollments	DC Plan Enrollments	Combined Plan Enrollments
Colorado Public Employees' Retirement Association	88%	12%	Not offered
Florida Retirement System	75%	25%	Not offered
Montana Public Employee Retirement Administration	97%	3%	Not offered
North Dakota Public Employees Retirement System**	98%	2%	Not offered
Ohio Public Employees Retirement System	95%	4%	1%
State Teachers Retirement System of Ohio	89%	9%	2%
South Carolina Retirement Systems	82%	18%	Not offered

"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.*

Three states separate out DB take-up rates by active choice and default. See the Technical Appendix for more information on default and elected DB take-up rates by state.

Another possible reason that public employees may go with the DB default is that their preferences for DB pensions are "revealed" preferences—that is, they reflect a preference realized by deliberately seeking out an employer that offers this type of plan. For instance, a Florida survey found that "up to 41% of the defaulters may be using this option as their active election in the belief that by defaulting there could be no mistakes made in their plan choice."[10]

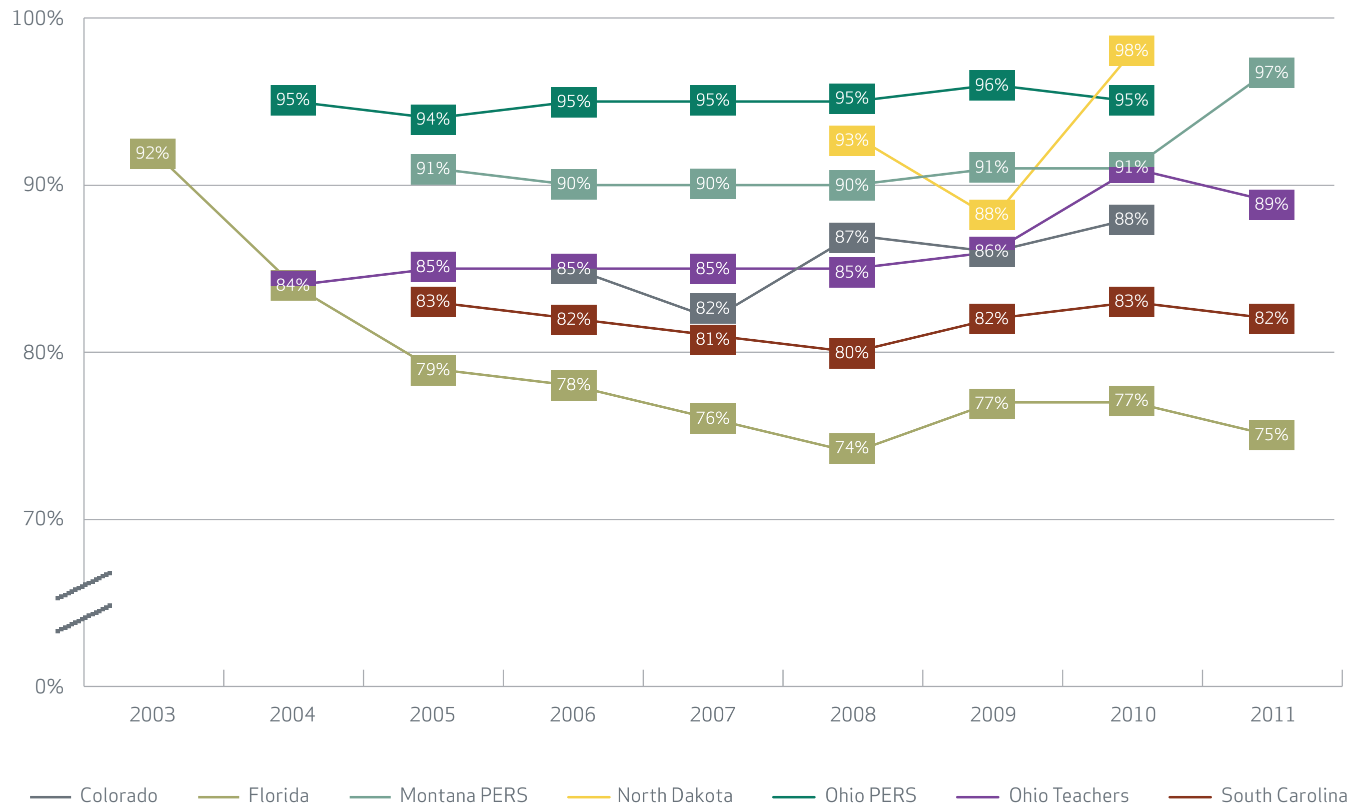
The experience in Washington PERS is illuminating as well. This is the only choice state in which the traditional DB plan is not the default; the default option is a combined DB and DC plan. Table 3 shows that an impressive 68% of new members in Washington have actively chosen an all-DB plan over the default of a combined DB and DC plan, and only 11% of new hires actively selected the combined DB and DC plan. This suggests that most public employees in other states that are "defaulted" into the DB plan would actively choose DB even if it were not the default.

Table 3. **Cumulative Washington PERS New Hire Elections, March 2002 through June 2011**

DB Plan Active Enrollments	Total Elections for DB & DC Combined Plan	Combined DB & DC Plan by Default	Combined DB & DC Plan Active Enrollments
68%	32%	21%	11%

Figure 1 shows that most of these DB/DC choice plans have had relatively stable election percentages in the short time they have existed. That is, the vast majority of public employees have consistently chosen the DB option. However, this is not to say that members will continue to make the same choices in the future. The stock market declines of 2000 to 2002 and 2008 have certainly influenced many members. It is possible that the future of the stock market, or the experiences of people retiring with only DC plans, could influence future member choices.

Figure 1. **Total DB Elections over Time**



Please see the Technical Appendix for detailed information on each state's take-up rates over time.

WHEN EMPLOYEES CHOOSE THEIR OWN DC INVESTMENTS, RETURNS ARE LOWER

Research indicates the average employees directing their own investments tend to earn lower investment returns than statewide DB systems, for a variety of reasons.

DB plans tend to achieve higher investment returns than DC plans because assets are pooled and professionally managed. Expenses paid out of plan assets to cover the costs of administration and asset management reduce the amount of money available to provide benefits. As a result, a plan that can reduce these costs will require fewer contributions. By pooling assets, large DB plans are able to drive down asset management and other fees. For example, researchers at Boston College find that asset management fees average just 0.25% of plan assets for public sector DB plans. By comparison, asset management fees for private sector 401(k) plans range from 0.60% to 1.70% of assets. Thus, private DC plans suffer from a 0.35% to 1.45% fee disadvantage, as compared with public DB plans.[11] On their face, these differentials may appear small, but over a long period of time, they compound to have a significant impact. To illustrate, over 40 years, a 1% difference in fees compounds to a 24% reduction in the value of assets available to pay for retirement benefits.[12]

But fees are only part of the story; differences in the way retirement assets are managed in DB and DC plans play a substantial role. Research has found that DB plans have broadly diversified portfolios and managers who follow a long-term investment strategy.[13] On the other hand, individuals in DC plans, despite their best efforts, often fall short when it comes to making good investment decisions. Thus, it should not be surprising that researchers find a large and persistent gap when comparing investment returns in DB and DC plans. Munnell and Sunden put the difference in annual return at 0.80%.[14] A 2007 report from the global benchmarking firm, CEM, Inc., concluded that between 1998 and 2005, DB plans showed annual returns 1.80% higher than DC plans, largely due to differences in asset mix.[15] And Towers Watson found that, between 1995 and 2006, DB plans outperformed DC plans by 1.09%, on average.[16] In 2006 and 2007, DB plans outperformed DC plans by an average of about 1.0% per year based on asset-weighted returns, while in 2008, DB plans outperformed DC plans by roughly 2.7%.[17]

The experience of two states, Nebraska and West Virginia, are consistent with this research.

Nebraska's state and county employees hired between 1964 and 2003 had only a DC plan. During the same period, Nebraska maintained separate DB plans for its school employees, judges, and state patrol. Over the 20 years leading up to 2002, the average return in the DB plans was 11% and the average return in the DC plans was between 6% and 7%. One reason for this large difference is that nearly 50% of DC member contributions were invested in the stable value fund, which was the default for members not making a specific investment election. Although the stable value fund is very conservative and the investor's balance will not decrease, the investor also has a lower expected rate of return. Partially due to the lower returns, employees were receiving a replacement ratio of their pre-retirement income closer to 30% rather than the projected 50% to 60%. Nebraska has since decided that employees hired since 2003 will go into a cash balance DB plan.

West Virginia had a similar experience. While teachers hired between 1991 and 2005 had only a DC plan, after July 1, 2005, all newly hired teachers went back into the old DB plan. One of the reasons for this change is that average DC returns lagged DB returns. Between 2001 and 2010, the average DB return was 1.6% higher than the average DC return. For more details, see the Technical Appendix.

DC MEMBERS CAN POOL INVESTMENT EXPERTISE WITH THE DB PLAN, ACHIEVE HIGHER RETURNS

In response to the lower returns generally earned in DC plans, some states offer employees with DC accounts the option of investing in the same manner as the DB pension system—and thereby earning exactly the same returns as the DB plan. For example, members of Washington State Plan 3 have the option to invest in the Total Allocation Portfolio (TAP), which mirrors the investments in the state DB plan and therefore earns the same returns. Washington has made the TAP the default investment option for Plan 3, and approximately 56% of members' DC assets are invested in the TAP option.

All employee contributions of members in the Oregon Public Service Retirement Plan are invested in the state's Individual Account Program (IAP). Like Washington's TAP, Oregon's IAP money is invested in the same manner as the DB plan. However, unlike Washington's TAP, which is one of many investment choices, Oregon's IAP offers no other investment choices.

Both Washington and Oregon provide members with a professionally managed portfolio. Washington's approach leaves room for individual risk tolerance, for instance, members near retirement may prefer to invest more conservatively. Oregon's approach ensures that all member funds are invested in a carefully managed portfolio. In both states, by foregoing the ability to choose their own investments, members are able to earn returns competitive with the DB plan.

It is also worth noting that both the Washington and Oregon plans are hybrid plans, in which employer contributions fund a DB plan, and employee contributions fund an account. This is significant because the DB plan provides some level of guaranteed income regardless of the account's investment returns.

WITH EXTRA CONTRIBUTIONS, DC PLANS CAN PROVIDE DEATH AND DISABILITY BENEFITS

Meaningful death and disability benefits can be provided in a DC environment, but it will require extra contributions that are not deposited to the members' DC accounts. Consider the choices three states have made to respond to the criticism that DC accounts do not provide adequate spousal and disability benefits.

In Florida, where members choose between a DB and a DC plan, disabled members can choose to surrender their DC account balance and receive the same disability benefits as provided by the DB plan. To finance this benefit, the employer pays a separate charge ranging from 0.25% of pay for general members to 1.33% of pay for special risk members, and a side account is maintained to finance the difference between the cost of the disability benefits and the dollar amount of the DC accounts surrendered by the members. (On the other hand, if DC members die in Florida, their death benefit is the DC account balance.) Montana PERA has a similar provision, where 0.30% of DC member pay is set aside to finance long-term disability benefits.

Alaska has a different approach. Alaska public employees hired after July 1, 2006, are only offered a DC plan. Here the occupational death and disability benefit is 40% of salary until normal retirement (50% of salary for the occupational death of police and fire members). The employer continues both the employer and employee contributions into a special occupational death and disability trust account until the member reaches normal retirement, or until the date the member would have reached normal retirement in the case of occupational deaths. At normal retirement age, the 40% (or 50%) of salary benefit stops, and the member, or survivor, receives the DC account as well as the accumulated contributions from the occupational death and disability trust account with actual returns net of expenses. Employers make contributions into a separate fund to finance the extra benefit not provided by the DC account.

MOVING FROM DB TO DC CAN INCREASE COSTS

Several states around the country have looked at eliminating the DB plan altogether, and moving all new hires into DC accounts. DB funding problems are often one of the reasons behind these efforts. Yet freezing the DB plan and moving to a DC plan that provides a similar level of retirement income can increase costs to the employer/taxpayer at exactly the wrong time. This occurs for three distinct reasons.

First and most important, DC plans do not have the economic efficiencies of DB plans. This drives up retirement costs. DB plans save money by pooling risks and achieving greater investment returns. According to one estimate, a DB plan can provide the same retirement income at about half the cost of a DC plan.[18] Thus, when a DB plan is frozen and replaced with a DC plan, far greater contributions from both employers/taxpayers and employees will be required to maintain the same level of benefit in the DC plan.

Second, maintaining two plans is more costly than operating just one. State and local governments typically do not have the option of transferring current employees out of a DB plan and into a new DC plan.[19] This means the employer will have to bear administrative costs for two plans, at least until the DB plan is finally phased out completely, a process that could take many decades as employees in the system complete their careers, retire, and ultimately die.

Finally, when a DB plan is closed, payments to amortize the unfunded liability for the DB plan may be accelerated which increases short term contributions and lowers long term contributions. This is actuarially consistent with the DB plan's shorter future lifetime. The current GASB rules (Statements 25 and 27) actually require this acceleration of unfunded liability payments when a DB plan is closed to be recognized on financial statements; not all plans determine their actual contributions according to the GASB rules.

These factors have influenced many states studying whether to switch from DB to DC. As a result, the vast majority have chosen to keep their DB plan, in the best interests of employers, taxpayers, and employees.

MOVING TO DC DOES NOT SOLVE FUNDING PROBLEMS, AS SEEN IN WEST VIRGINIA

Regardless of potential cost increases, changing from DB to DC does not solve the underlying funding problem a state may be experiencing. One interesting case study is the West Virginia Teachers Retirement System (TRS). In 1991, West Virginia closed TRS to new members, and all new hires were put into a DC plan. The state later found, however, that this "funding solution" had overlooked some important considerations.

Specifically:

- New members do not start with any unfunded obligation.
- Projected DC contributions for new members were worth more than the projected DB costs for those members.
- No unfunded obligations for existing members are reduced when new members go into a DC plan.

As a result, the loss of new members made it more difficult to finance the unfunded obligations of the DB plan.

By 2003, the state began reexamining this switch. The 4,500 members who were transferred from the DB to the DC plan in 1991 found it hard to retire after the bear market of 2000–2002. Additionally, as mentioned previously, DC member accounts had achieved much lower investment returns than TRS. After studying the issue extensively, the state decided that starting in 2005 all new hires would go into the DB plan. It was also found that providing equivalent benefits would be less expensive under the DB structure than in the DC plan. The state has shown discipline to achieve a better funded position, with extra contributions of $290.1 million in fiscal year 2006 and $313.8 million in fiscal year 2007. In addition, West Virginia completed a tobacco bond securitization in fiscal year 2007 and deposited $807.5 million of those proceeds into TRS as another special appropriation. Most recently, in June of 2008, the teachers in the DC plan were given the choice to switch to the DB plan, and a full 78% chose to switch, including 76% of young teachers (under 40 years old).[20]

West Virginia projected a $1.2 billion savings in the first 30 years by moving new entrants from the DC to the DB plan. This relies on an assumed return of 7.5%. When the Legislature asked the impact of lower returns, calculations showed an investment return of 6.0% or more was needed for the DB plan to save money.[21]

One way to finance preexisting unfunded liabilities and to defray employer expenses is to require specific contributions to the DB plan as a percent of DC member pay. Colorado, Florida, Montana PERA, Ohio PERS, Ohio Teachers, and South Carolina all require contributions paid as a percentage of DC member salaries that are not credited to DC member accounts. See the Technical Appendix for details.

EMPLOYERS DO NOT ALWAYS TAKE THE DB RISK: UTAH GIVES EMPLOYEES A NEW CHOICE

Traditionally, employers take most of the risks in DB plans and employees take most of the risks in DC plans. For example, in traditional DB plans, employers take on all of the funding risk; that is, if an unfunded liability in the pension plan develops, the employer is solely responsible for filling that funding gap. Of course, employees may indirectly take on some of that risk, for example, through increased employee contributions or decreased benefits. But the legal and fiduciary responsibility to pay down the unfunded liabilities remains with the employer. Under DB plans, employers are largely responsible for investment risk, inflation risk, and longevity risk. Under DC plans, on the other hand, the funding risk, investment risk, inflation risk, and longevity risk is solely assumed by employees. See Table 4.

The new retirement system in Utah challenges this tradition of employers bearing the entire DB risk. Starting July 1, 2011, Utah allows new hires to choose between a DC plan and a hybrid plan that includes both a DB and a DC account. Employees who choose the hybrid plan assume DB funding and investment risk. That is, employers will contribute 10% of salary to the hybrid plan regardless of future experience. If this contribution is insufficient to fund the DB plan, employees will have to make up the difference through an automatic payroll deduction. However, employer contributions not needed to fund the DB plan will be deposited into employees' DC accounts. Since 7.5% of pay is estimated to provide for the DB benefits, employees would get 2.5% of pay deposited to their DC accounts if all future experience matched the assumptions. Employees can also voluntarily contribute more to their DC accounts under the hybrid plan. If employees choose the DC plan instead of the hybrid, employers will contribute 10% of salary to the employees' DC account.[22] See Table 4.

Employees in Utah, then, must make a unique decision: in order to get the advantages of a DB plan, including a guaranteed benefit for life, professional investment management, and the benefits provided by longevity pooling, they must also take on the funding and investment risks. Employees are not *forced* to take on the DB risk, however; it is a choice, and they can opt for the DC plan instead—which, of course, comes with its own set of risks. If the employee chooses the DC plan, the employer will contribute 10% of pay to the DC account. If the employee chooses the hybrid plan, the employer will contribute 10% of pay as described above. Thus, under either plan, the employer contribution is a flat 10% of pay. The employer is neutral to the employee's decision. See Table 5.

Interestingly, the changes in Utah were intended to avoid future funding problems rather than solving any immediate funding issues. Although Utah had a funded ratio close to 100% before the market crisis, the stock market decline of 2008-2009 did impact its funding status. Therefore the State

Table 4. **Risks in Traditional DB and DC Plans, and Utah's New Hybrid Plan**

	Typical DB Plan (Traditional Pension)	Typical DC Plan (401(k), 403(b), 457)	Utah's New Hybrid Plan
Funding Risk	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.	Employees assume all funding risk.	Employees assume all funding risk above the 10% employer contribution.
Investment Risk	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.	Employees assume all investment risk.	Employers assume all investment decisions, but employees assume investment risk in terms of any unfunded liabilities that may develop.
Inflation Risk	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.	Employees assume all inflation risk.	The plan offers an automatic CPI COLA, but it is capped at 2.5%.
Longevity Risk	Employers assume all longevity risk.	Employees assume all longevity risk.	Employees assume DB risk in terms of any unfunded liabilities that may develop as a result of members living longer than assumed.
Portability/ Leakage Risk	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.	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.	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.

Legislature commissioned a study to project the system's funding and to gauge the impact of putting new hires in a less expensive plan. The study projected that if no changes were made and the system earned 7.75% returns in 2009 and each year thereafter, the employer contribution rate would increase from 13.25% to 23.10% of pay, and the funded ratio would decrease to 70.5% before starting to improve.

The old DB plan had a normal cost rate of 11.71% of pay, meaning contributions equal to 11.71% of pay for future hires were projected to finance their retirement benefits, but this contribution amount would not finance the large unfunded liabilities created by the asset losses of 2008-2009. In addition, the old plan included an employer DC contribution of 1.5% of pay. In other words, the entire employer contribution toward accrued retirement benefits for future hires was projected to be 13.21% of pay.

Since the plan design finally adopted for new hires has a cost of 10.00% of pay, it is projected to have cost savings that slowly build to 3.21% of pay as new employees are hired (3.21% = 13.21% – 10.00%).

What differentiates the change in Utah is not cost savings, however; it is risk shifting. If another market downturn occurs, the employers' contributions for new hires will remain 10% of pay; the employees in the hybrid plan will absorb the risk through a combination of smaller deposits to their DC accounts, as well as possible payroll deductions.

The normal cost rate for the DB portion of the new hybrid plan is 7.5% of pay. Thus, if all assumptions come true in the future, 2.5% of pay will be available to deposit to the DC portion of the hybrid plan. Table 5 summarizes the differences between the old and new plan designs.

Table 5. **The Utah Retirement System**

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

What About Do-Overs?

One plan design choice employers face is whether to give employees a chance to change their mind, and switch to the alternative retirement system. Having a do-over option may be particularly valuable to employees whose situations change unexpectedly. For example, a teacher who is married to a member of the military and expects to move frequently may initially choose the DC plan, as the portability aspect may be most attractive. However, if the couple's plans change and they decide to settle more permanently, the teacher may then wish to switch over into the DB plan.

Montana PERA, North Dakota, Vermont, and Washington require new hires to make a one-time irrevocable decision, but several other systems do allow for a change. Colorado allows members to change their election one time in years two through five after they are hired. Ohio Teachers allows members in the DC or combined plan to change in their fifth year of membership, and South Carolina allows members to change their election once in the first five years, but the change can only be from the DC plan to the DB plan. Florida allows members to change once at any time before retirement or termination of employment. Ohio PERS allows members to change up to three times: once in their first five years of employment, once in their second five years, and one more at any time after 10 years of service through retirement.

Different systems handle employees' switches in different ways. Florida allows two choices when members switch from DB to DC. The members can either (1) freeze their current DB benefits based on service and salary to date and have future contributions accumulate in their DC accounts, or (2) convert their DB benefits into DC accounts based on the present value of the normal retirement benefit. If a Florida member wants to switch from DC to DB, the member must pay the full cost based on either the present value or the actuarial accrued value, depending upon whether the member has previous DB service prior to joining the DC plan. The DC account is used first. If there is more money than needed in the DC account, the member keeps the excess assets in the DC account. If there is not enough money in the DC account, then the member must pay the difference or stay in the DC plan.

In Florida, only 53,112 employees have chosen to take up the do-over option since its inception in 2002. With nearly 700,000 active members when the option was implemented, and between 45,000 and 98,000 new hires each year for the past ten years who could take advantage of the option, this represents a small take up rate. See the Technical Appendix for more information.

Ohio PERS, which allows up to three changes, takes a somewhat different approach. Changes are prospective only, but members transferring to the DB or combined plan have the option to purchase service in the new plan using their DC or combined plan assets. Frozen DB benefits are based on salary and service during DB membership only.

In Ohio, out of a total of nearly 400,000 eligible members, only 866 members have opted for a do-over since 2003. Thus, with an average of about 2 in 1,000 eligible employees choosing to change their retirement plan, it is clear that Ohio's do-over option is not very popular. This suggests that the vast majority of public employees, at least within Ohio, are satisfied with their initial decision. See the Technical Appendix for more information.

IMPLICATIONS

When given the choice between a primary DB or DC plan, public employees overwhelmingly choose the DB plan. This suggests that DB plans are more attractive than DC plans to public employees. This is not surprising, as research has shown that public employees tend to favor DB plans in general.[23]

In the final analysis, it's a question of accumulation and distribution. The accumulation of contributions and investment earnings determines available retirement income. A plan that maximizes investment earnings and pools longevity risk over many employees maximizes the benefits provided by contributions. Public employees seem to favor plans that provide lifetime income.

There is not yet much experience on how many public employees with DC plans have been able to make their assets last a lifetime, although the experience in West Virginia suggests that this could be quite challenging for some workers. Unfortunately, the consequences of outliving one's assets are severe. DC plans rarely measure whether assets accumulated will provide adequate retirement income. It remains an open question to understand how public (and private) sector employees with DC plans can be sufficiently educated and empowered to navigate the risks of pre-retirement accumulation, as well as post-retirement distribution.

Although employers have traditionally taken on most of the risk in DB plans and employees have taken on most of the risks in DC plans, the experience of some states suggests that risks can be more shared between employers and employees. Examples include the combined DB/DC plans in Washington, Oregon, and Ohio, as well as certain DB plans in which any increases in contribution rates are shared by employees. The new hybrid plan in Utah shifts the entire DB funding risk from the employer to the employees.

CONCLUSION

State and local DB pension plans provide a critical source of reliable income for more than 19 million Americans, including 7.6 million retirees and 14.7 million active employees.[24] These plans are a cost effective way to provide broad-based coverage, secure money for retirement, a lifetime income, and economic protections for spouses for our nation's police officers, firefighters, schoolteachers, and other public servants.

A handful of states offer public employees a choice between primary DB and DC plans. This paper analyzes the choices made by employees in these states, and finds that:

- When given the choice between a primary DB or DC plan, public employees overwhelmingly choose the DB pension plan.
- DC plans are less cost efficient than DB plans, due to lower investment returns, and the lack of longevity risk pooling.
- DC plans lack supplemental benefits such as death and disability protection. Some plans have attempted to address these discrepancies, but these provisions require extra contributions that are not deposited to the members' accounts.
- Making a complete shift from a DB to a DC structure does nothing to close any funding shortfalls, and can actually increase costs. The experience in West Virginia finds that employees with an initial DC benefit overwhelmingly chose the DB plan when offered.
- The hybrid plan for new employees in Utah provides a unique case study, in that it has capped the DB funding risk to the employer, and shifted the rest to employees.

The experience in the public sector thus far indicates that public employees value their DB pension benefits quite highly. This fact, coupled with the fact that DB pensions remain the most cost-effective way to fund a retirement benefit, suggests that the public sector is unlikely to mimic the trend away from DB pensions witnessed in the private sector.

A1. State Systems Referenced

System	Current plan	Effective date
Alaska PERS & TRS	DC	July 1, 2006
Colorado PERA	DB/DC choice	January 1, 2006
Florida RS	DB/DC choice	July 1, 2002
Montana PERA	DB/DC choice	July 1, 2002
Nebraska PERS	Cash Balance DB plan	January 1, 2003
North Dakota PERS	DB/DC choice (limited group)	January 1, 2000
Ohio PERS	DB/DC/combined choice	January 1, 2003
Ohio STRS	DB/DC/combined choice	July 1, 2001
Oregon PERS	DB combined w/ DC-like account	August 29, 2003
South Carolina RS	DB/DC choice	July 1, 2001
Utah	Hybrid/DC choice	July 1, 2011
Vermont SRS	DB/DC choice (limited group)	January 1, 1999
Washington State	DB/combined choice	March 1, 2002
West Virginia TRS	DB	July 1, 2005

Systems with Supplemental Contributions

The following systems have contributions paid as a percentage of DC member salaries that are not credited to DC member accounts. Supplemental contributions required to fund DB liabilities show that introducing a DC plan does not reduce the unfunded liabilities of the existing DB plan.

Colorado PERA

- Amortization Equalization Disbursement (AED): The total AED percentage for 2011 is 2.6% of pay, and is scheduled to increase 0.4% each year to a maximum of 5% in 2017.
- Supplemental Amortization Equalization Disbursement (SAED): The total SAED percentage for 2011 is 2% of pay, and is scheduled to increase 0.5% each year to a maximum of 5% in 2017.

- In Colorado, the AED and SAED are both contributions to the DB plan to account for adverse selection. Both are applied to both DB and DC payroll. The AED is paid by employers. The SAED, although technically an employer contribution, is considered to be an employee contribution because it comes out of the foregone employee compensation package.

Florida RS

- To fund supplemental disability benefits for DC members, a contribution ranging from 0.25% of DC member pay for general members to 1.33% of DC member pay for special-risk members is paid by employers into a separate side account.
- Employers contribute 0.03% of pay to fund communication and administration.
- Beginning July 1, 2011, the Florida legislature required funding of a portion of the unfunded actuarial liability (UAL) for the Florida Retirement System Pension Plan. The Florida Retirement System has been doing this since the first of the alternative DC plans for selected State University System employees became effective July 1, 1984. The practice continued through the 1998 FRS valuation when the system was determined to be in surplus actuarial funding and all existing UAL bases were fully amortized. The Florida Retirement System Pension Plan was in actuarial surplus through the 2008 valuation. The Florida Legislature required some by class in the contributions for the 2011-2012 fiscal year. Employers are paying the UAL rate on all persons in a regularly established position, including the Investment Plan and the non-integrated DC plans created before the Investment Plan.

Montana PERA

The following contributions are made by Montana PERA employers as a percent of DC member pay:

- A Plan Choice Rate (PCR) contribution equal to 2.64% of pay is made to the DB plan to prevent DB costs from increasing due to financing unfunded liabilities over a smaller payroll and increases in the normal cost rate due to anti-selection. The PCR was 2.37% from inception at July 1, 2002, until July 1, 2007, and 2.505% of pay from July 1, 2007 until July 1, 2009. The PCR has been 2.64% of pay since July 1, 2009.
- A payment of 0.30% is made to finance long-term disability benefits.
- A payment of 0.04% is made to the education fund.

Ohio PERS

- A contribution of 0.77% of pay from employer contributions was made for all DC and combined plan members to the DB plan by the employer in 2011 as a "mitigation rate." The board reviews the mitigation rate annually, and it can vary between 0% and 6%. The highest level to date is 0.77%.

Ohio STRS

- 3.5% of pay from employer contributions for all DC members is used to pay for the unfunded liabilities of the DB plan.

South Carolina RS

- Of the total employer contribution made for the South Carolina Retirement System (SCRS), each employer contributes 5 percent directly to participant accounts and the remainder is remitted to the retirement system. SCRS may retain from this employer contribution an amount as determined by the director to defray any reasonable expenses incurred in performing services regarding the plan. Table A2 summarizes contribution levels.

A2. **South Carolina Employer Contributions**

Fiscal Year	% Allocated to Member	% Retained by SCRS	Total Employer Contribution
2006-2007	5.000%	3.050%	8.050%
2007-2008	5.000%	4.060%	9.060%
2008-2009	5.000%	4.240%	9.240%
2009-2010	5.000%	4.240%	9.240%
2010-2011	5.000%	4.240%	9.240%
2011-2012	5.000%	4.385%	9.385%
2012-2013	5.000%	4.530%	9.530%

Further System Details

The following section provides a brief summary of information relevant to this article for each system.

Alaska

Starting July 1, 2006, Alaska's public employee and teachers defined benefit plans are closed. New hires will go into the defined contribution plan.

The default percent of pay contribution rates are 5% employer and 8% employee in PERS and 7% employer and 8% employee in TRS.

Alaska teachers do not participate in Social Security and many Alaska public employers, like the state of Alaska, have opted out of Social Security participation.

Colorado Public Employees' Retirement Association (PERA)

Starting Jan. 1, 2006, Colorado allowed new state employees (people without a tie to the PERA DB plan within the last year) to choose between the PERA DB plan, the PERA DC plan, and the state-offered DC plan. In 2008, the Colorado General Assembly expanded choice to include the new employees within the Community College system. The Community College members have the choice between the PERA DB plan and the PERA DC Plan. The state-offered DC plan was not available to the Community College employees. In 2009, the Colorado General Assembly passed legislation that moved participants in the state-offered DC plan into the PERA DC plan. Choice for new hires of both the State of Colorado and the Community Colleges is now solely between the PERA DB plan and the PERA DC plan.

Members have a 60-day election window and can then change their minds once between the PERA DB and PERA

A3. **Colorado PERA New Hire Choices* (Effective January 1, 2006)**

	DB by default	DB active enrollments	DC active enrollments
2006	37%	48%	14%
2007	39%	43%	18%
2008	58%	29%	13%
2009	53%	33%	15%
2010	33%	55%	12%

**Based on 28,322 new hires.*

DC plans either way in years two through five. If a member changes to the DC plan, s/he must completely refund the DB account, and leave the DB plan for DC plan. DB service can't be frozen for an active member. If the member changes to the DB plan, the member has the option to purchase his or her original time in the DB plan after one year based on actuarial value.

The DB and DC plans require the same employer and employee percentage of pay contributions. The base contribution rates are 10.15% employer and 8% employee for state and school employees, and 12.85% employer and 10% employee for state troopers. For DB members, 1.02% of pay from the base employer contribution is used to fund retiree health care instead of pension benefits. For DC members, the 1.02% of pay goes into the members' DC accounts as part of the employer contribution and it is up to the members to pay for health care when they retire although they may participate in the association's health care program, PERACare. The AED and SAED supplemental contributions described earlier are in addition to these base contribution rates.

Table A3 is a historical record of the choices of new hires in Colorado PERA.

Florida Retirement System (FRS)

Starting July 1, 2002, Florida allowed new employees to choose between a DB plan and a DC plan.

There are no employee contributions to either the DB or the DC plan. Employer contributions to members' DC accounts range from 9% of pay for general members to 20% of pay for special risk. Employer contributions to fund additional disability benefits for DC members range from 0.25% of pay for general members to 1.33% of pay for special-risk members. Employers contribute 0.03% of pay to fund communication and administration.

DC accounts vest 100% at one year of service. DB benefits vest 100% at six years of service. Accounts and benefits are 0% vested before these dates.

A4. **Florida Retirement System New Hire Choices* (Effective July 1, 2002)**

	DB by default	DB active enrollments	DC active enrollments
9/02 – 6/03	86%	6%	8%
7/03 – 6/04	73%	11%	16%
7/04 – 6/05	61%	18%	21%
7/05 – 6/06	59%	19%	22%
7/06 – 6/07	58%	18%	24%
7/07 – 6/08	55%	19%	26%
7/08 – 6/09	55%	22%	23%
7/09 – 6/10	56%	21%	23%
7/10 – 6/11	53%	22%	25%

**At June 30, 2011 there are 552,984 DB members and 105,250 DC members.*

A5. **Take Up Rates of Florida's "Do-Over" Options, 2002-2011**

Do-Over Option	Total members who have made this change
Pension Plan to Investment Plan	51,055
Pension Plan to Hybrid Plan	138
Investment Plan to Pension Plan	1,919
Total	53,112

Table A4 is a historical record of the choices of new hires in Florida. Florida has an active education campaign. The overall DC election percentage of 25% in the year ending June 30, 2011, is the highest of any system in this study.

Members have a six-month election window and can change their minds once at any time before retirement or termination. Details of how the switch is treated are given in the main body of the article.

A6. **Montana PERA New Hire Choices (Effective July 1, 2002)**

	DC active enrollments
7/04 – 6/05	9%
7/05 – 6/06	10%
7/06 – 6/07	10%
7/07 – 6/08	10%
7/08 – 6/09	9%
7/09 – 7/10	9%
7/10 – 7/11	3%

Montana Public Employees' Retirement Administration (PERA)

Starting Jan. 1, 2002, Montana PERA allowed new employees to choose between a DB plan and a DC plan.

Members have 12 months after hire to make a one-time irrevocable decision between the DB plan and the DC plan.

The DB and DC plans require the same employer and employee percentage of pay contributions. Employers contribute 7.17% of pay. Employees contribute 6.90% of pay. Employer DC contributions can be broken down as 4.19% to the DC account, 2.64% plan choice rate (DB funding), 0.30% for long-term disability benefits, and 0.04% for the education fund. The entire employee contribution is credited to the DC account.

Table A6 is a historical record of the choices of new hires in Montana PERA. Members not making a choice are placed in the DB plan by default; however, statistics are not available on what portion of new hires entering the DB plan did so by default.

North Dakota Public Employees Retirement System (NDPERS)

Starting Jan. 1, 2000, North Dakota allowed nonclassified state employees to choose between a DB plan and a DC plan. As only nonclassified state employees are eligible, there were only 228 active members in the DC plan as of December 31, 2010.

Members have six months after hire to make a one-time irrevocable decision between the DB plan and the DC plan.

The DB and DC plans require the same employer and employee percentage of pay contributions. Employers contribute 4.12% of pay and employees contribute 4% of pay for a total contribution of 8.12% of pay.

Table A7. **North Dakota PERS New Hire Elections (January 2001–December 2010;* Effective January 1, 2000)**

	DB by default	DC active enrollments
1/2001 – 6/2008	88%	12%
2008	93%	7%
2009	88%	12%
2010*	98%	2%

** There are 228 active members in the DC plan as of 2010. Statistics are maintained by calendar year starting in 2008. One new employee out of the 63 eligible joined the DC plan in 2010.*

Table A7 shows that 12% or fewer of the new hires have actively elected the DC plan and 88% or more have either actively elected the DB plan or been placed in the DB plan as the default. Breakouts of the portion of DB elections that were active versus default are not available.

Ohio Public Employees Retirement System (OPERS)

Starting Jan. 1, 2003, OPERS allowed new employees to choose between an all-DB plan (the Traditional Pension Plan), an all-DC plan (the Member-Directed Plan), and the Combined Plan. In the Combined Plan, employer contributions fund DB benefits and all member contributions are credited to DC accounts.

The employer contribution is 14% of pay and the employee contribution is 10% of pay for all three plans and for all groups. Members in the all-DC and combined plans have all employee contributions credited to their DC accounts. However, a portion of the employer contribution is used to fund retiree health care (4.5% of pay in 2010; for DC participants, this contribution is deposited into a VEBA). Also, the mitigation rate, which is currently 0.77% of pay, comes out of the 14% employer contribution and is not credited to DC accounts.

Table A8 is a historical record of the choices of new hires in OPERS.

Members have a 180-day selection window. Members have three chances to change their minds about their choice—once in the first five years of total service credit, once between five to ten years, and once at any time after ten years. Changes are prospective only, but members transferring to the all-DB or combined plan have the option to purchase service in the new plan using their DC accounts. Service purchases are based on service in the plan the member is opting out of; must use the DC account first; and if the DC account is less than the total cost, then the member may still purchase all service with an additional lump sum, rollover, or payroll deduction. Frozen DB benefits are based on salary and service during DB membership only.

Table A8. **Ohio PERS New Hire Choices* (Effective January 1, 2003)**

	DB by default	DB active enrollments	DC active enrollments	Combined plan active enrollments
2004	84%	11%	3%	2%
2005	84%	10%	3%	3%
2006	83%	12%	3%	2%
2007	82%	13%	3%	2%
2008	81%	14%	3%	2%
2009	84%	12%	3%	1%
2010	78%	17%	4%	1%

** Based on 349,490 new hires.*

Table A9. **Take Up Rates of Ohio PERS "Do-Over" Options, 2003-2011**

Do-Over Option	Total members who have made this change
DB Plan to DC Plan	419
DB Plan to Combined Plan	114
Combined Plan to DC Plan	17
Combined Plan to DB Plan	120
DC Plan to Combined Plan	30
DC Plan to DB Plan	166
Total	**866**

A10. **Ohio Teachers New Hire Choices* (Effective July 1, 2001)**

	DB by default	DB active enrollments	DC active enrollments	Combined plan active enrollments
7/01 – 6/04	69%	15%	10%	6%
7/04 – 6/05	70%	15%	11%	4%
7/05 – 6/06	72%	13%	11%	4%
7/06 – 6/07	72%	13%	11%	4%
7/07 – 6/08	71%	14%	11%	4%
7/08 – 6/09	71%	15%	10%	4%
7/09 – 6/10	81%	10%	7%	2%
7/10 – 6/11	79%	10%	9%	2%

** Based on 171,568 new hires through June 30, 2011.*

State Teachers Retirement System of Ohio (STRS)

Starting July 1, 2001, STRS allowed new employees to choose between an all-DB plan, an all-DC plan, and a combined plan. In the combined plan, employer contributions fund DB benefits and all member contributions are credited to DC accounts.

Members have a six-month election window. After the member is put in the all-DB plan either by default or by active election, he or she cannot elect out. Members who choose the DC or combined plan have a one-time option at the end of the fiscal year following the fourth anniversary of the hire date to switch to one of the other two plans that were not chosen at the time membership began. Members must positively elect to stay in the combined or all-DC plan during this reselection period or they will default into the all-DB plan. If members change into the all-DB plan, they forfeit their DC accounts and are treated as if they had been in the all-DB plan since hire. There are no changes after the end of the fifth fiscal year of participation after hire.

The employer contribution is 14% of pay and the employee contribution is 10% of pay for all three plans. Members in the all-DC and combined plans have all employee contributions credited to their DC accounts. However, a portion of the employer contribution to the all-DC plan is used to fund unfunded liabilities for the all-DB plan (3.5% of pay in 2008).

Table A10 is a historical record of the choices of new hires in STRS of Ohio.

Oregon Public Service Retirement Plan (OPSRP)

Oregon has chosen that starting Aug. 29, 2003, all new hires go into a combined pension plan with two components: the defined benefit pension program and the defined contribution-like Individual Account Program (IAP).

The pension program provides a defined benefit equal to 1.5% of final average salary (1.8% for police officers and firefighters) for every year of service and is funded entirely by employer contributions and investment earnings.

The IAP is funded by the employee contributions, which are 6% of pay. All IAP assets are invested in the same portfolio as the DB assets; there is no difference. Employees have no choice in how IAP assets are invested. As a result, the members' IAP accounts earn comparable returns, positive or negative, to the DB assets. Earnings are credited annually to member accounts. Administrative fees are deducted from the fund's earnings as part of the annual crediting process. Members receive an annual statement after earnings are credited each year.

South Carolina Retirement Systems

South Carolina allows new employees of State agencies, institutions of higher education, and employees of k-12 schools to choose between a DB plan and a DC plan. Employees of municipalities, counties or special purpose districts cannot participate in the DC plan. This arrangement was made effective over the period from July 1, 2001, to July 1, 2003, varying by group.

DC members choose between four authorized investment providers. Members must choose investment options from their chosen investment provider. Members may change investment providers during the annual open-enrollment period subject to the investment provider's contractual limitations.

A11. **South Carolina Retirement Systems Percent of New Hires Electing DC* (Effective July 2, 2001, and July 1, 2003)**

	Higher Education	K - 12 Schools	State Agencies	Overall
7/04 – 6/05	32%	14%	11%	17%
7/05 – 6/06	34%	14%	12%	18%
7/06 – 6/07	37%	15%	13%	19%
7/07 – 6/08	35%	16%	13%	20%
7/08 – 6/09	33%	14%	11%	18%
7/09 – 6/10	31%	12%	10%	17%
7/10 – 6/11	33%	11%	13%	18%

** Based on 201,466 new hires through June 30, 2011.*

Members have a 30-day election window after hire to choose between the DB plan and the DC plan. During their first five years, members can change from the DC plan to the DB plan. Members cannot change from the DB plan to the DC plan. If a member changes to the DB plan during this five-year period, the member has the option to purchase his or her original time in the DB plan. The cost is 16% of the member's highest career salary for each year of service. The member has the option, but is not required, to use his or her DC account for these service purchases.

The DB and DC plans require the same employer and employee percentage of pay contributions. Employers currently contribute 9.24% of pay. Employees contribute 6.50% of pay. Five percent of employer DC contributions are deposited to the DC account; the South Carolina Retirement System collects the difference between the employer contribution and the 5% allocated to member accounts and may retain an amount as determined by the director to defray any reasonable expenses incurred in performing services regarding the plan. The entire employee contribution is credited to the DC account. Participants are immediately vested.

Table A11 is a historical record of the choices of new hires in South Carolina. Like most other systems, the DB plan is the default election. It is interesting to note that the percent of new hires electing DC varies widely by group. The percent of higher education employees choosing DC has varied from 31% to 37%, whereas the DC choice for other groups has only varied from 10% to 16%.

Vermont

Starting Jan. 1, 1999, all new exempt state employees were given a choice between a DB plan and a DC plan. In addition, beginning in July of 2000, the governing body of employers in the Vermont Municipal Employees' Retirement System (VMERS) can elect to offer employees a choice between a DB plan and a DC plan. To date, about 92 of the over 400 VMERS employers have chosen to offer this choice to their employees.
Employees make a one-time irrevocable choice at hire.

In the state DC plan, employers contribute 7% of pay and employees contribute 2.85% of pay. In the VMERS DC plan, employers contribute 5% of pay and employees contribute 5% of pay.

Statistics on the percentage of members electing the DC plan or DB plan are not available.

Washington State Department of Retirement Systems

Starting March 1, 2002, Washington allowed new hires in the Public Employees' Retirement System (PERS) to choose between an all-DB plan (Plan 2), and a combined plan (Plan 3). In the combined plan, employer contributions fund DB benefits equal to 1% of final average earnings for each year of service and all member contributions are credited to DC accounts. Starting July 1, 2007, new hires in the Teachers' Retirement System (TRS) and the School Employees' Retirement System (SERS) were given the same choice between Plan 2 and Plan 3.

Members have 90 days after hire to make a one-time irrevocable decision between the all DB plan and the combined plan.

At the same time the plan election is made in the first 90 days, members in the combined plan (Plan 3) also choose between six employee contribution-rate options. Once the employee contribution-rate option is chosen, it cannot be changed as long as the member remains with the same employer. If members separate from the employer, they may

change their contribution rate with the next employer. All employee contributions are credited to the DC account.

The six employee contribution options in the combined plan are as follows:

- Option A: 5% of pay contribution at all ages
- Option B: 5% to age 35, 6% at ages 35 to 44, 7.5% at ages 45 and up
- Option C: 6% to age 35, 7.5% at ages 35 to 44, 8.5% at ages 45 and up
- Option D: 7% of pay contribution at all ages
- Option E: 10% of pay contribution at all ages
- Option F: 15% of pay contribution at all ages

Employees who do not make an election in the first 90 days after hire are placed in the combined plan (Plan 3) with employee contribution option A. Approximately 65% of combined plan members are in option A, with the remainder spread fairly evenly between the other five contribution options.

One of the DC investment options is the Total Allocation Portfolio (TAP), which mirrors the investments in the state DB plan and therefore earns the same returns. Washington has made the TAP the default investment option for Plan 3 and approximately 56% of the members' DC assets are in the TAP option. Starting in October of 2008, target date funds managed by an outside provider have also been available. The target date funds allocate investments without the member's involvement and automatically change the asset mix as the member moves closer to retirement.

Table A12 shows that approximately 68% of the PERS members hired between March 1, 2002, and June 28, 2011, have actively chosen the all DB plan over the combined plan, which is the default. Breakouts of choices by year are not available.

A12. **Cumulative Washington PERS New Hire Elections, March 2002 – June 2011**

Plan 3 Combined DB & DC by default	Plan 3 Combined DB & DC active enrollments	Plan 2 All DB active enrollments
21%	11%	68%

West Virginia Teachers Retirement System

The following chronology of the West Virginia TRS fills in some holes not described in the article.

- 1941: West Virginia TRS was established as a DC plan.
- 1960s and 1970s: DB benefits were added to counter the inadequate DC benefits, but the benefits were never properly funded.
- 1991: The DC plan (TDC) was established for new hires in response to funding problems, and 4,500 former DB participants also switched from the DB to DC.
- 2003: Many of the 4,500 who switched felt misled and said they could not afford to retire. Other DC members were also not satisfied.
- 2005: The state decided that a given level of benefits could be funded for a lower cost through a DB plan. Average DC returns had been lower than DB returns in both up and down markets. Changing to a DC plan did not solve the state's funding problems. All members hired after July 1, 2005, go into the DB plan instead of the DC plan. West Virginia projected a $1.2 billion savings in the first 30 years due to moving new entrants from the DC to the DB plan.
- 2006 and 2007: Special appropriations of $290.1 million in FY2006 and $313.8 million in FY2007 were deposited into TRS. In addition, West Virginia completed a tobacco bond securitization in FY2007 and deposited $807.5 million of those proceeds into TRS as another special appropriation. All these amounts were in addition to the regular contribution determined under the ARC, which was converted to a level dollar amortization (from level percentage of payroll).
- 2008: DC members are given the option to switch to the DB plan. Of those DC members, 78.6% (14,925 members) chose to switch to the DB plan. Surprisingly, the switch, which was expected to cost the state up to $78 million before the elections were made, is now expected to save the state about $22 million. Fewer older TDC members than expected transferred. More young TDC members than expected transferred. 50% of those over 70 transferred; 69% of those age 65 to 69 transferred; 81% of those 45 to 64 transferred; and 76% of members under age 40 transferred.

Table A13 shows the investment returns for the 10 years ended June 30, 2001, through June 30, 2010. The ten-year average DB return was 1.6% higher than the average DC return.

Table A13. **West Virginia Teachers' DC Returns Compared to TRS Returns**

Year ending June 30	DC plan	DB plan
2001	-2.60%	-0.25%
2002	-3.76%	-2.94%
2003	4.84%	4.75%
2004	8.83%	15.08%
2005	6.33%	10.56%
2006	6.67%	9.55%
2007	11.85%	17.43%
2008	-3.28%	-7.64%
2009	-12.16%	-16.77%
2010	9.16%	15.20%
10 Yr Average	**2.32%**	**3.93%**

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