January 2009

PERiSCOPE Public Employee Retirement Systems

Public plan DB/DC choices

Mark Olleman, FSA, MAAA

This article is about choices: When given the choice, do public employees choose a defined benefit (DB) plan or a defined contribution (DC) plan? Do employers give employees the chance to choose a second time? What happens when employees choose their own investments? Can employers choose to offer meaningful death and disability benefits to DC members? What are the implications of an employer choosing to change from a DB to a DC plan? This article looks at the recent experience of statewide retirement systems to provide some answers.

What do public employees choose?

Many people claim that DC plans are more attractive to new employees than DB plans. Is this true? As a test, note that in the last 10 years, the seven statewide systems listed in Table 1 have begun giving new hires the choice between participating in a DB or a DC plan. Their experience indicates that public employees prefer DB plans. The percentage of new employees electing DC plans ranges from 3% in the Ohio Public Employee Retirement System to 26% in Florida.

Table 1 shows that many of the members going into a DB plan never submit an election and are placed in the DB plan by default. However, based on survey data, Florida found that "up to 45% 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." What is more, Table 2 shows that in Washington PERS—the only system where DB is not the default—63% of new members have actively chosen an all-DB plan (Plan 2) over the default of a combined DB and DC plan (Plan 3).

Most of these DB/DC choice plans have had relatively stable election percentages in the short time they have existed. However, we do not know how the choices members make will change in the future. The stock market decline of 2000 to 2002 has certainly influenced many members. No doubt factors such as the future of the stock market and the experiences of people retiring with only DC plans will influence future member choices. The financial market experience of late 2008 may have some influence as well.

TABLE 1

NEW HIRE ELECTIONS IN MOST RECENT COMPLETE YEAR

SYSTEM	DB BY DEFAULT	DB ACTIVE ENROLLMENTS	DC ACTIVE ENROLLMENTS	COMBINED PLAN ACTIVE ENROLLMENTS
COLORADO	39%	43%	18%	NOT OFFERED*
FLORIDA	55%	19%	26%	NOT OFFERED*
MONTANA PERS	90%	NOT SEPARATED*	10%	NOT OFFERED*
NORTH DAKOTA**	88%	NOT SEPARATED*	12%	NOT OFFERED*
OHIO PERS	82%	13%	3%	2%
OHIO TEACHERS	72%	14%	11%	4%
SOUTH CAROLINA	80%	NOT SEPARATED*	20%	NOT OFFERED*

* *"NOT SEPARATED" MEANS ACTIVE DB ENROLLMENTS HAVE NOT BEEN SEPARATED FROM DEFAULT DB ENROLLMENTS.*
"NOT OFFERED" MEANS THERE IS NOT AN OPTION TO ENROLL IN A COMBINED DB/DC PLAN.

*** NORTH DAKOTA STATISTICS ARE FOR JANUARY 2001 THROUGH JUNE 2008.*

TABLE 2

CUMULATIVE WASHINGTON PERS NEW HIRE ELECTIONS FROM MARCH 2002 TO SEPTEMBER 2008

PLAN 3 COMBINED DB & DC BY DEFAULT	PLAN 3 COMBINED DB & DC ACTIVE ENROLLMENTS	PLAN 2 ALL DB ACTIVE ENROLLMENTS
19%	18%	63%

Tables 1 and 2 summarize the experience of systems that allow their members to choose between a DB plan and a DC plan. Ohio and Washington state 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.

What about do-overs?

One plan design choice employers face is whether to give employees a chance to change their mind. This chance for a do-over has been referred to by some as the pension mulligan. Although Montana PERS, North Dakota, Vermont, and Washington state require new hires to make a one-time irrevocable decision, other systems do not. Colorado allows members to change their election one time in years two through five after hire. Ohio Teachers and South Carolina also allow members to change their election once in the first five years, but only from DC to DB. Florida allows members to change once at any time before retirement or termination of employment. Last, 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 once more at any time after 10 years of service through retirement.

You might ask, "What do systems do when members change their mind?" Florida allows two choices when members switch from the DB to the DC plan. 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 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 where 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 extra 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.

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 accounts. Frozen DB benefits are based on salary and service during DB membership only.

The do-over could be particularly valuable when a member's situation changes. As an example, the portability of a DC plan might be attractive to a teacher who does not expect to stay long in a position due to a military spouse who is frequently moved around the country. However, if the couple's plans change and they decide to settle down, the teacher might want to change to the DB plan.

Can meaningful death and disability benefits be provided in a DC environment?

Yes, meaningful death and disability benefits can be provided in a DC environment, but it will require supplemental contributions. Consider the choices three states have made to respond to the criticism that DC accounts do not provide adequate death 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. This raises a question: Where does the money to finance this benefit come from? The answer is that 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. If DC members die in Florida, their death benefit is the DC account balance. Montana PERS 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, all go into 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.

What happens when employees choose their own investments?

Experience indicates the average employee directing his or her own investments earns lower investment returns than a statewide DB system. Here is the experience of two states.

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, state 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%. Why the significant difference? One reason is that nearly 50% of DC member contributions were invested in the stable value fund. The stable value fund 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 on or after Jan. 1, 2003, will go into a hybrid defined benefit plan.

West Virginia had a similar experience. Teachers hired between 1991 and 2005 had only a DC plan. Teachers hired after July 1, 2005, go into a DB plan instead. One of the reasons for this change is that average DC returns lagged DB returns. As an example, during the seven years from 2001 to 2007, the DB plan outperformed the DC plan in both the best and worst markets. The DC return was higher in only one of the seven years Over the seven year period, the average DB return was 3.15% higher. Specific returns are shown in the appendix.

Do DC members have to choose their own investments?

Employees directing their own investments tend to earn lower investment returns than statewide DB systems for a variety of reasons. DC members are part-time investors, whereas DB plans are managed by full-time highly trained professionals. DB plans have investment options that are generally not available to DC members, such as real estate, private equity, and hedge funds. DC members often lack discipline and chase returns. Does this mean that DC members cannot earn the same investment returns as DB plans? No, DC members can earn exactly the same returns. 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 61% of the members' DC assets are in the TAP option.

The employee contributions of members in the Oregon Public Service Retirement Plan go into the 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, in Oregon's IAP there are no other investment choices, and so all DC money is invested to match the DB plan.

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 not want to take as much risk. Oregon's approach ensures that all member funds are invested in a carefully managed portfolio. Either way, it is ironic that DC members may need to give up their ability to choose their own investments in order to earn returns competitive with DB plans.

Both the Washington and Oregon plans are hybrid plans where employer contributions fund a DB plan and employee contributions go into a DC plan. This is significant because the DB plan will provide some level of guaranteed income regardless of DC investment returns.

Does changing to DC solve funding problems?

In 1991, the West Virginia teachers' poorly funded DB plan was closed to new members. All new hires were put into a DC plan. This funding solution overlooked some important considerations:

- New members do not start with any unfunded obligation.
- Projected 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 West Virginia Teachers' Retirement System (TRS).

In 2003, West Virginia studied whether teacher retirement should be returned to a DB plan. Another factor in the decision was that 4,500 members who transferred from the DB to the DC plan in 1991 found it hard to retire after the bear market of 2000–2002. When also considering the lower average returns that were earned on the DC member accounts, the state decided that starting in 2005 all new hires would go into the DB plan to save money. After studying the issue, the state decided that funding a DB plan properly would be less expensive than a DC plan providing equivalent benefits. The state has shown discipline to achieve this proper funding, 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. Seventy-eight percent chose to switch.

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. This relies on an assumed return of 7.5%. The Legislature asked what return would be needed to break even. The answer was 6.0%. In order for the DB plan to save money, a projected return of more than 6.0% was needed. The employer cannot avoid funding risk with a DB plan, but changing to a DC plan does nothing to take care of unfunded obligations.

Some states require specific contributions to the DB plan as a percent of DC member pay in order to finance preexisting unfunded liabilities and to defray expenses. The systems include Colorado, Montana PERS, Ohio PERS, Ohio Teachers, and South Carolina. Details are in the appendix.

What are the implications of these choices?

The choices discussed in this article have many implications. Public employees have overwhelmingly chosen DB plans over DC plans. This implies that DB plans are more attractive than DC plans to public employees. This is not surprising, as public employees tend to have long service. Some systems have chosen to allow their members a second choice. This do-over could help an employee reverse a bad decision. Some systems have chosen to provide meaningful death and disability benefits in a DC environment; however, supplemental contributions are required. Employees tend to earn less when they choose their own investments. However, this can be countered in a DC plan by using an alternative like Washington state's TAP or Oregon's IAP, where the DC assets are invested in the same manner as the DB assets. Choosing to change from a DB to a DC plan does not solve funding problems.

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 maximizes the benefits provided by contributions. Public employees are choosing plans that provide lifetime distributions. There is not yet much experience on how many DC members have been able to make their assets last a lifetime. The distribution phase and the loss of longevity risk pooling in retirement is probably the hardest obstacle for DC plans to overcome. The consequences of outliving one's assets are severe. DC plans rarely measure whether assets accumulated will provide adequate retirement income. How many employees can be sufficiently educated and empowered to navigate the risks of pre-retirement accumulation and postretirement distribution?

There often seems to be a choice between the employer bearing all the risk of funding a defined benefit and the member bearing all the risk of accumulating sufficient assets to last a lifetime. However, there are some choices that share risk between employers and employees, such as the combined DB/DC plans in Washington, Oregon, and Ohio, and DB plans where contribution increases are shared by employees. More choices are needed where risk is shared, or better yet reduced, and adequate retirement benefits are provided for a reasonable cost.

Further details are provided in the appendix available on Milliman's Web site.

Mark Olleman is a principal and consulting actuary in Milliman's Seattle office.

Inquiries may be directed to: Brent Banister, Editor; 1120 South 101st Street, Suite 400, Omaha, NE 68124-1088; (402) 393-9400; periscope@milliman.com.
Offices in principal cities worldwide

Milliman

PERiSCOPE

Public Employee Retirement Systems

Appendix - Public plan DB/DC choices

This appendix provides further details.

TABLE 3

STATE SYSTEMS REFERRED TO IN THIS ARTICLE

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 PERS	DB/DC CHOICE	JULY 1, 2002
NEBRASKA PERS	HYBRID DB	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	COMBINED	AUGUST 29, 2003
SOUTH CAROLINA RS	DB/DC CHOICE	JULY 1, 2001
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 AED has been 0.5% of pay in 2006, 1% in 2007, and 1.4% in 2008. It is scheduled to increase 0.4% each year to a maximum of 3% in 2012.
- Supplemental Amortization Equalization Disbursement (SAED)–The SAED is 0.5% in 2008, and is scheduled to increase 0.5% each year to a maximum of 3% in 2013.
- 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 employee compensation package. Both grade down when trust funds reach 100% funding.

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 0.05% of pay to fund communication and administration.
- In Florida, there is no payment as a percent of DC member salaries to fund DB unfunded liabilities.

Montana PERS

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

- A Plan Choice Rate (PCR) contribution equal to 2.505% 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 antiselection. The PCR was 2.37% from inception at July 1, 2002, until July 1, 2007, when it increased to 2.505% of pay.
- 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 for members in the all DC plan is made to the DB plan by the employer in 2008 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

- The South Carolina Retirement System currently collects 4.24% of the employer contribution and may retain an amount as determined by the director to defray any reasonable expenses incurred in performing services regarding the plan. This amount has changed as follows: 3.05% for FYE 6/30/2007, 4.06% for FYE 6/30/2008, and 4.24% for FYE 6/30/2009.

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. Additional employee contributions may be elected once in the first 24 months of hire subject to the IRS maximums in Section 415.

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 Employee Retirement Administration (PERA)

Starting Jan. 1, 2006, Colorado allowed new employees to choose between the PERA DB plan, the PERA DC plan, and three other state-offered DC plans.

Members have a 60-day election window and can then change their minds once between the PERA DB and PERA DC plans either way in years two through five after retirement. If a member changes to the DC plan, the DB benefit is frozen based on service and salary to the date of the change and the member participates in the DC plan going forward. 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 healthcare 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 healthcare when they retire. The AED and SAED supplemental contributions described earlier are in addition to these base contribution rates.

Table 5 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.

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.

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 0.05% 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.

Table 6 is a historical record of the choices of new hires in Florida. Florida has an active education campaign. DC elections have increased each year and the overall DC election percentage of 26% in the year ending June 30, 2008, is the highest of any system in this study.

Montana Public Employees' Retirement System (PERS)

Starting Jan. 1, 2002, Montana PERS 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 7.035% of pay. Employees contribute 6.90% of pay. Employer DC contributions can be broken down as 4.19% to the DC account, 2.505% 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 7 is a historical record of the choices of new hires in Montana PERS. 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 291 members in the DC plan as of July 1, 2008.

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 8 shows that about 12% have actively elected the DC plan and 88% have either actively elected the DB plan or have not made a choice and have been placed in the DB plan as the default. Breakouts by year and 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.

Members have three chances to change their minds about their choice–once in the first five years after hire, once five to 10 years after hire, and once at any time after 10 years from hire and before retirement. 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.

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 benefits (4.5% of pay in 2008). 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 9 is a historical record of the choices of new hires in OPERS.

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. All changes after the first six months are effective at the end of the fiscal year following the fourth anniversary of the hire date. Members must positively elect to stay in the combined or all-DC plan at the end of the fifth fiscal year of participation 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 10 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 Individual Account Program (IAP).

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

The IAP is funded entirely 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' DC accounts earn the same return, positive or negative, as 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 interest is credited each year.

South Carolina Retirement Systems

South Carolina allows new employees to choose between a DB plan and a 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.

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 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 currently collects 4.24% of the employer contribution 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.

Table 11 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 32% to 37%, whereas the DC choice for other groups has only varied from 11% 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 77 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 state 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 58% 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 61% of the members' DC assets are in the TAP option. Starting in October of 2008, target date funds managed by an outside provider are also 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 12 shows that approximately 63% of the PERS members hired between March 1, 2002, and Sept. 26, 2008, have actively chosen the all DB plan over the combined plan, which is the default. Breakouts of choices by year are not available.

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. 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). Clearly, West Virginia is demonstrating a new DB contribution discipline.
- 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. Fifty percent of those over 70 transferred. Sixty-nine percent of those age 65 to 69 transferred. Eighty-one percent of those 45 to 64 transferred. Seventy-six percent of members under age 40 transferred.

Table 4 shows the investment returns for the seven years ended June 30, 2001, through June 30, 2007. The seven-year average DB return was 3.15% higher than the average DC return. DB investments did better in both the best and worst investment years. The average DC return was only higher in 2003 when DC investments averaged 4.84% and DB investments earned 4.75%.

TABLE 4

WEST VIRGINIA TEACHERS' DC RETURNS COMPARED TO DB

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	6.73%	9.55%
2007	11.85%	17.43%
7 YR AVERAGE	4.59%	7.74%

TABLE 5

COLORADO PERA NEW HIRE CHOICES*

(EFFECTIVE DATE: JANUARY 1, 2006)

	DB BY DEFAULT	DB ACTIVE ENROLLMENTS	DC ACTIVE ENROLLMENTS
2006	37%	48%	14%
2007	39%	43%	18%
1/08 – 5/08	35%	43%	21%

**BASED ON 11,200 NEW HIRES.*

TABLE 6

FLORIDA RETIREMENT SYSTEM NEW HIRE CHOICES*

(EFFECTIVE DATE: 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%

** AT JUNE 30, 2008 THERE ARE 609,888 DB MEMBERS AND 95,392 DC MEMBERS.*

TABLE 7

MONTANA PERS NEW HIRE CHOICES
(EFFECTIVE DATE: 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%

TABLE 8

NORTH DAKOTA PERS NEW HIRE ELECTIONS FROM JANUARY 2001 THROUGH JUNE 2008*
(EFFECTIVE DATE: JANUARY 1, 2000)

DB BY DEFAULT	DC ACTIVE ENROLLMENTS
88%	12%

** THERE ARE 291 MEMBERS IN THE DC PLAN AS OF JULY 1, 2008.*

TABLE 9

OHIO PERS NEW HIRE CHOICES*
(EFFECTIVE DATE: 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%
1/08 – 6/08	79%	15%	4%	2%

** BASED ON 228,234 NEW HIRES.*

TABLE 10

OHIO TEACHERS (STRS) NEW HIRE CHOICES*

(EFFECTIVE DATE: 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%

** BASED ON 123,781 NEW HIRES.*

TABLE 11

SOUTH CAROLINA RETIREMENT SYSTEMS PERCENT OF NEW HIRES ELECTING DEFINED CONTRIBUTION*

(EFFECTIVE DATES: JULY 1, 2001 TO JULY 1, 2003)

	HIGHER ED.	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%

** BASED ON 128,459 NEW HIRES.*

TABLE 12

CUMULATIVE WASHINGTON PERS NEW HIRE ELECTIONS FROM MARCH 2002 TO SEPTEMBER 2008

PLAN 3 COMBINED DB & DC BY DEFAULT	PLAN 3 COMBINED DB & DC ACTIVE ENROLLMENTS	PLAN 2 ALL DB ACTIVE ENROLLMENTS
19%	18%	63%

References

Damsel, Bill, Assistant Director, Defined Contribution,
Ohio Public Employees Retirement System

Davis, Tammy, Assistant Director, Payroll and Financial Reporting,
South Carolina Retirement System

Green, Garry, Research and Education Section Administrator,
Florida Retirement System

Hardesty, Michelle, Assistant Director Retirement Services Division,
Washington Department of Retirement Systems

Lea, Kathy, Retirement Manager,
Alaska Division of Retirement and Benefits

Mackee, Dennis, Director of Communications for the
State Board of Administration of Florida

Mandel, Harry, Board Actuary,
West Virginia Consolidated Public Retirement Board

Maurek, David, Chief Operating Officer,
Colorado Public Employees' Retirement System

Nebraska Public Employees Retirement Systems,
Retirement Roundup, State & County Employees, Vol. 17, No. 5,
Summer 2002

Orr, Dale, Actuarial Analysis Section Manager,
Oregon Public Service Retirement Plan

Reinhardt, Bryan, Research Analyst, Benefits Planner,
North Dakota Public Employees Retirement System

Russell, Gary, Director, Member Services,
State Teachers Retirement System of Ohio

Samson, Kathy, Defined Contribution Plans and Education
Services Bureau Chief,
Montana Public Employee Retirement Administration

Webster, Cynthia, Director,
Vermont State Retirement System

Inquiries may be directed to: Brent Banister, Editor; 1120 South 101st Street, Suite 400, Omaha, NE 68124-1088; (402) 393-9400; periscope@milliman.com
Offices in principal cities worldwide