

State Notes

TOPICS OF LEGISLATIVE INTEREST

March/April 2009



Examining a Change from Defined Benefit to Defined Contribution for the Michigan Public School Employees' Retirement System **Kathryn Summers-Coty, Chief Analyst**

As Michigan's school districts face uncertain financial times in a struggling State economy, one potential avenue for savings that often is mentioned relates to the pension benefits provided to members of the Michigan Public School Employees' Retirement System (MPSERS). Specifically, debate often focuses on changing the system from a defined benefit (DB) plan to a defined contribution (DC) plan. However, as this article demonstrates, such a move does not guarantee savings, and in fact, would produce short-term costs and potentially could cost more in the long term, depending on the structure of the replacement plan. This article explains the differences between DB and DC plans, discusses what is offered in MPSERS, reviews the costs of pensions under the DB plan in MPSERS and under the DC plan for State employees, and illustrates what would occur if MPSERS were changed from DB to DC.

What is a Defined Benefit Plan?

A defined benefit plan is one that offers a fixed, continuous stream of income after a person retires, often referred to as a "pension". An employee in a DB plan must work for a set period of years before becoming eligible to receive a pension upon retirement ("vesting"), and must work either a certain number of years or to a certain age, or both, in order to receive full pension benefits. Working fewer than the required number of years, or leaving employment before reaching a certain age (but after vesting) results in a permanent reduction to the maximum amount of pension allowance. Currently, MPSERS is a DB plan.

What is a Defined Contribution Plan?

A defined contribution plan is one in which contributions are made to a retirement account, by either the employer or the employee, or both. The amount a person receives when he or she retires depends on the level of contributions made over the employee's lifetime and the investment returns on those contributions. A DC plan does not provide a fixed, continuous stream of retirement income, but instead provides a retirement account with a variable value that usually relies on market and investment performance. The State of Michigan used to offer a DB plan for all State government employees; however, State employees hired after March 31, 1997, are now part of a DC plan.

What is the MPSERS?

Basic System Information

In 2008, there were 278,642 active (working) members and 167,265 retired members of MPSERS. Pensions totaling \$3.1 billion were paid to retirees in 2008. Also, health care for retirees was provided, at a cost of \$666.4 million. The system includes all 554 K-12 districts, 58 public school academies (charter schools), seven universities (for employees hired before January 1, 1996), all 28 community colleges, all 57 intermediate school districts (ISDs), and 11 libraries.



As of September 30, 2008, net system assets were \$39.9 billion; the Department of Treasury invests these assets. In 2008, the system was 88.7% funded. This means that, at the present time, the total value of all earned benefits (to be paid out over the lifetimes of retirees) exceeds the amount of assets in the system. When assets equal all earned benefits, a system is 100% funded. The variable that has the most impact on a system's funded ratio is the performance of the stock market.

It is very critical to note that MPSERS is a plan that requires contributions from employees, as well as from employers, in order to have funds available to pay out the earned pensions. Employees hired after January 1, 1990, and before July 1, 2008, pay \$510 plus 4.3% of salary above \$15,000. However, due to the enactment of Public Act 111 of 2007, employees hired after July 1, 2008, pay \$510 plus 6.4% of salary above \$15,000. In 2008, employees contributed \$477.3 million into MPSERS; this contribution will increase over time as more employees are newly hired and required to pay a higher portion of their salary into the retirement system.

Each year, the Office of Retirement Services publishes the upcoming fiscal year's retirement "rate", and employers (e.g., school districts) pay that published MPSERS rate applied to their payroll. The total rate includes both a pension component and a health care component. The rate for 2008-09 is 16.54%, of which 6.81% is to pay for health care costs and 9.73% is to cover the costs of funding pensions. For example, a school district with a \$20.0 million payroll in the 2008-09 fiscal year would pay \$3.3 million (16.54% of \$20.0 million) into the system. In 2008, employers statewide paid more than \$1.6 billion into MPSERS. Therefore, total combined employee and employer contributions in 2008 were more than \$2.1 billion.

Calculating a Pension under MPSERS

Employees hired after January 1, 1990 (enrolled in the Member Investment Plan, or MIP) may retire with a full pension allowance at any age if they have 30 or more years of service; or at age 60 with 10 or more years of service; or at age 60 with five years of service, with the service credited in each of the last five years before retirement and through age 60.

Employees hired before January 1, 1990 (enrolled in the Basic plan) may retire with a full pension allowance at age 55 with 30 or more years of service, or at age 60 with 10 or more years of service.

A person's pension depends on the years of service and final average compensation (FAC). The multiplier is 1.5% under current law. The FAC is the average of the three-year period yielding the highest total wages for MIP members, and the average of the five-year period yielding the highest total wages for Basic members.

- Under current law, Pension = Years of Service X FAC X 1.5%.
- For example, a person with 30 years of service and FAC of \$70,000 would earn, under current law, a pension of \$31,500 per year.



What are the Costs of the State's DC Plan?

Before examining how a change from DB to DC would look for MPSERS, a discussion of the State's DC plan for State employees is prudent. Also, the remainder of this analysis will focus only on pensions and will not include a discussion of the cost of providing health care to retirees, since changes have made health care benefits for MPSERS retirees that are very similar to benefits for those in the State's DC plan.

State employees hired before March 31, 1997, were placed into the State's DB plan, which offers a fixed pension based on years of service and final average compensation. Unlike the MPSERS defined benefit plan, the State employees' DB plan did not require employee contributions, which made the employer normal pension cost more expensive, since the employer paid the entire cost of funding pensions. The State changed this plan, however, and all employees hired after March 31, 1997 (and those hired before this date who voluntarily switched over) were placed into a DC plan.

The State employees' DC plan is basically a 401k investment account. The State first deposits 4.0% of the employee's salary into the investment account. Next, the State will match the first 3.0% of the employee's contributions into that account. Therefore, if an employee contributes 3.0% or more into the 401k, the total that the State contributes is 7.0% of the person's salary (the first 4.0% plus matching the 3.0% that the employee contributes). Currently, according to the Office of Retirement Services, the average that the State contributes for a DC employee is 6.65% of salary, meaning that most people do in fact contribute to their 401ks and earn the State match. This 6.65% of salary represents the State's cost of funding a DC employee's retirement account. Any additional deposits into that account must come from the employee, and the amount of deposits and market performance over time will determine how much the employee will have available in retirement.

What if MPSERS Changed to a DC Plan Like the Plan for State Employees?

If MPSERS were converted to a DC plan for new employees hired after a certain date, and if the DC plan were identical to what is provided to new State government employees, there would be costs associated with the change. First, there would be ongoing increases in the amount of contributions that employers would have to pay based on the "normal cost" variance between the plans. Second, there would be costs of paying off the existing unfunded liability on a different payment schedule, as required when a system is closed to new hires. Third, there would be one-time administrative costs for the Office of Retirement Services (ORS). These three costs are discussed in more detail below.

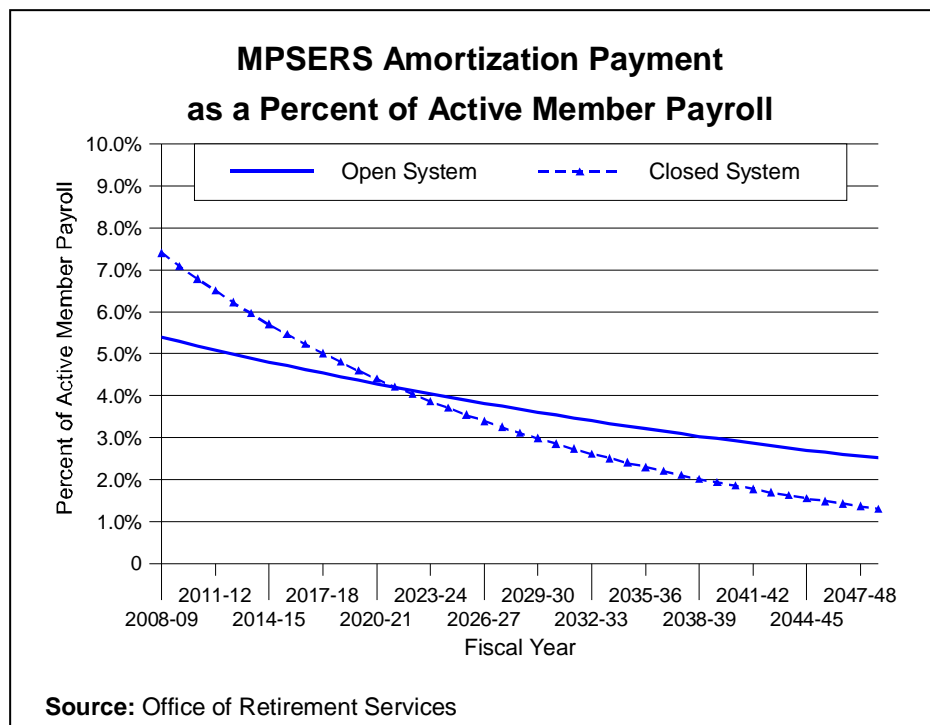
Because MPSERS requires contributions from employees in the plan, the "normal cost" to employers (e.g., school districts) of funding pensions will be 4.21% of salary in fiscal year (FY) 2009-10. This compares to the normal cost of funding 401k accounts under the State's DC plan estimated by ORS for FY 2009-10 at 6.55% of salary (again, with the State first contributing 4.0% of salary and matching up to 3.0% of employee contributions). In addition, if a MPSERS DC plan were designed to match the SERS DC plan, the employer would need to pay an additional 0.4% to fund the DB disability and survivor benefits that are extended to DC participants, for a total cost of 7.05%. If MPSERS were restructured to a DC plan with the same parameters as the State employees' DC plan, then there would be an increase in costs to



school districts, community colleges, ISDs, and participating charter schools and libraries, equal to the difference between these rates (4.21% compared to 7.05% of salary). The ORS estimates these costs to be \$7.0 million in the first year, \$24.0 million in the second year, and \$38.0 million in the third year, growing over time as more employees are newly hired and placed into the DC plan. If employers had to contribute the maximum rate as a result of all employees contributing the full 3.0% match, the costs rise to \$9.0 million in the first year, \$28.0 million in the second year, and \$45.0 million in the third year.

The second area of costs has to do with paying off the unfunded accrued actuarial liability (UAAL) in the system. The UAAL represents the shortfall of assets in the system to meet the cost of all earned benefits, if those benefits had to be paid out in their entirety today. As of September 30, 2008, the UAAL was \$8.9 billion. When a DB system remains open and enrolls newly hired employees, this unfunded liability is paid off over 28 years as a *level percentage of payroll*. If a DB system becomes closed to new employees, accounting rules require the unfunded liability to be paid off over 30 years as a *level dollar amount*. In the first year, the amortization payment would be 7.4%, instead of 5.4% if the system were open. The additional cost of this requirement is estimated at \$208.0 million, or 2.0% of payroll, in the first year; the cost would decline slowly over the next 14 years. In years 15 to 30, the cost of paying off the liability after the system was closed would be less than if it had been paid off as a level percentage amount. The costs would be paid for by an increase in the retirement rate, meaning higher costs for employers. Figure 1 illustrates the differences between these two payment plans, and shows that though the liability is a fixed amount, how it is paid off varies under an open DB or closed DB plan, and closing the system would require higher payments and a higher retirement rate in early years, but lower payments in outer years.

Figure 1





Finally, the ORS has indicated that if MPSERS were changed to a DC plan, and if the plan applied only to new employees, a one-time transition cost would be incurred, estimated at \$2.0 million. However, if the DC plan were offered to employees currently in the DB plan, as well as mandated for new personnel, the administrative costs would range from \$8.0 million to \$10.0 million.

Advantages of a DC Plan

While a DC plan for MPSERS (if structured like the State employees' plan) would not be less expensive than the DB plan, it would likely be more stable and predictable for employers in terms of knowing their costs from one year to the next. This is because the risk of asset investments is taken off the employers in a pension system (under a DB plan), and shifted onto the employees (under a DC plan). When the market underperforms, the investment portfolio in a DB plan does not generate the assumed level of interest income, and therefore employer contributions have to increase in future years to make up for the shortfall (the UAAL), but employees' pensions are not adversely impacted. For FY 2009-10, employers in MPSERS have to pay 6.15% applied to salaries to make up for some of the market shortfall. This is in addition to the 3.98% "normal cost". Combining the two means that, in FY 2009-10, employers will have to pay 10.13% of each eligible employee's salary into MPSERS.

The converse is true as well. When the market performs better than assumed, the required amount of funding may be reduced from one year to the next, all else being equal, because the unfunded accrued liability is either smaller or eliminated. Since 1996, there were seven years in which less than 1.0% of payroll had to be paid into the system to cover the unfunded accrued liability.

A DC plan, by its very nature, does not have any unfunded accrued liability, because, if the market declines, the value of the employee's asset portfolio declines and the amount available to the retiree falls, but the State is not required to make up any shortfall in market performance. To give a sense of how the rates between the two major retirement plans have changed over time, Table 1 compares the MPSERS' DB rate with the State Employees Retirement System (SERS) DC rate. As shown, the MPSERS DB plan has had a lower pension normal cost in recent years than the SERS DC plan has had. The higher employee contributions to MPSERS resulted in a lower employer pension normal cost compared with the SERS DC plan.

State Notes
TOPICS OF LEGISLATIVE INTEREST
 March/April 2009



Table 1

Employer Contribution Rates¹⁾			
		MPSERS-DB	SERS-DC²⁾
2000	Pension Normal Cost	6.47%	5.75%
	UAAL	<u>0.59%</u>	n/a
	Total Pension	7.06%	5.75%
2001	Pension Normal Cost	6.42%	6.22%
	UAAL	<u>0.19%</u>	n/a
	Total Pension	6.61%	6.22%
2002	Pension Normal Cost	6.06%	5.62%
	UAAL	<u>0.06%</u>	n/a
	Total Pension	6.12%	5.62%
2003	Pension Normal Cost	6.26%	6.03%
	UAAL	<u>0.68%</u>	n/a
	Total Pension	6.94%	6.03%
2004	Pension Normal Cost	6.26%	5.77%
	UAAL	<u>0.68%</u>	n/a
	Total Pension	6.94%	5.77%
2005	Pension Normal Cost	6.31%	6.35%
	UAAL	<u>2.01%</u>	n/a
	Total Pension	8.32%	6.35%
2006	Pension Normal Cost	5.47%	6.55%
	UAAL	<u>4.32%</u>	n/a
	Total Pension	9.79%	6.55%
2007	Pension Normal Cost	5.49%	6.65%
	UAAL	<u>5.70%</u>	n/a
	Total Pension	11.19%	6.65%
2008	Pension Normal Cost	5.28%	6.65%
	UAAL	<u>4.89%</u>	n/a
	Total Pension	10.17%	6.65%
2009	Pension Normal Cost	5.17%	6.65%
	UAAL	<u>4.56%</u>	n/a
	Total Pension	9.73%	6.65%
2010	Pension Normal Cost	3.98%	6.65%
	UAAL	<u>6.15%</u>	n/a
	Total Pension	10.13%	6.65%
¹⁾ Rates shown do not include percentage of payroll applied to fund the cost of retiree health care, which is provided to retirees of both retirement systems.			
²⁾ Rates shown represent total employer contributions divided by total payroll for all SERS DC participants.			



Conclusion

This analysis was intended to illustrate issues surrounding the conversion of the MPSERS from a defined benefit (guaranteed pension) to a defined contribution (401k or similar) plan. The analysis compared the existing MPSERS DB plan for school employees with the existing DC plan for State government employees. Clearly, if a DC plan were structured differently, the analysis would change. For example, a DC plan that only offered a maximum of 4.0% of salary contribution to a personal investment account would have the same normal cost as the MPSERS plan for FY 2009-10, and would ensure cost certainty for employers, but would provide a lower level of benefits for employees, and, while costing employers the same amount, could yield very different results in terms of dollars available to the employee at retirement. Also, even if a DC plan were enacted with a lower normal cost than the current DB plan (by offering less than a 4.0% contribution into a personal investment account), short-term costs of paying off the unfunded liability of the existing DB system still would be incurred, until the system was closed and the liability paid off.

While this analysis focused on employer costs and the shift of risk from employers to employees if a DC system were considered, there are other issues that likely would require discussion. One of these issues is whether a DC system provides an adequate level of retirement funding, given the inherent risks in market performance that drive the return on investments, and the importance of the level of contributions made by the employee throughout his or her lifetime, along with any matching employer contributions. In time, experience with the State's DC plan for State employees hired after March 1, 1997, may yield valuable comparative statistics as to the level of dollars available to retirees under the DC plan, relative to fixed pensions available to the State's DB employees. Until then, however, an analysis of retirement income for Michigan government employees will not be possible.