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## BILL ANALYSIS



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Senate Bill 401 (as introduced 5-23-17)  
Sponsor: Senator Phil Pavlov  
Committee: Education

Date Completed: 5-25-17

**CONTENT**

The bill would amend the Public School Employees Retirement Act to do the following:

- Place all new school employees hired on or after October 1, 2017, into a 401k or 401k-style plan (i.e., a "defined contribution" plan) and eliminate the existing "hybrid" plan as an option for new employees. (Employees currently in the hybrid plan would remain in it.)
- Place all existing school employees who chose the existing defined contribution (DC) option upon employment (which was a choice beginning in September 2012) into the new defined contribution plan.
- Require the new defined contribution plan to be one in which the employer would deposit 4% of the employee's salary into a 401k or 401k-style plan, and match the employee's contributions up to another 3% of salary (for a maximum possible employer contribution of 7% of salary, when an employee contributed at least 3%). (This is the same structure as the DC plan in place for State employees hired since March 31, 1997.)
- State that, as provided under Article IX, Section 24 of the State Constitution, "accrued financial benefits of the pension plan and retirement system created under this act are a contractual obligation of the state that shall not be diminished or impaired".
- Beginning with fiscal year 2018-19, prohibit the normal cost and the unfunded actuarial accrued liability contribution rates from declining from one year to the next.
- Require the School Aid Fund to pay for the employer's matching 3% contributions.
- Require that the existing unfunded accrued liability associated with the pension plan (and any "regular" changes to that liability due to variations in actual experience compared to actuarial assumptions) be amortized over the next 21 years, ending with fiscal year 2037-38.
- Require that any additional unfunded accrued liability associated with any changes in the assumed rates of return on the pension portfolio's assets that occurred after the closure of the existing defined benefit component of the hybrid plan be amortized over a period not to exceed 40 years, ending not later than September 30, 2057.
- Require that the unfunded actuarial accrued liability rate continue to be a level percentage of payroll (and continue to be levied across all payroll, old and new, defined benefit and defined contribution).
- Require the approval of the State Treasurer, in addition to the approval currently required of the Retirement Board and the Director of the Department of Technology, Management, and Budget, to change the assumed rates of return on the pension system's assets.
- Require the Office of Retirement Services (ORS) and the State Treasurer to report every four years on the forecasted rate of return on investments at various probability levels; the actual rate of return on investments for various intervals; mortality, retirement age, and payroll growth assumptions; and, any other assumptions with material impacts on the retirement plans.

- Require ORS to offer a qualified participant (i.e., a member of the DC plan) a menu of lifetime annuity options, either fixed or variable or both, and specify that the annuity options could include both nominal and inflation protected options.
- Specify that employees in the new defined contribution plan would be subject to the vesting requirements currently in Section 132 (i.e., immediately vested in their own contributions; 50% vested in employer contributions after two years; 75% vested after three years; and, 100% vested in employer contributions after four years of service).

MCL 38.1305 et al.

## **BACKGROUND**

Public Act 75 of 2010 established a new "hybrid" pension plan for employees first hired on or after July 1, 2010. The hybrid consists of a defined benefit (DB) pension component and a defined contribution (DC) component. Under the hybrid, the earliest a person can begin drawing pension payments is age 60 (with at least 10 years of service), there are no cost of living adjustments in retirement, the purchase of service credit is prohibited, and the rate of return assumed on assets invested for the system is 7%. The DC component of the hybrid provides a 50% employer match on the first 2% of an employee's contributions (i.e., the maximum employer match is 1% of pay).

Public Act 300 of 2012 provided an alternative DC-only plan for employees first hired on or after September 4, 2012. The optional DC plan provides a 50% employer match on the first 6% of an employee's contributions (i.e., the maximum employer match is 3% of pay). Roughly 20% of new employees choose the optional DC plan. In addition, PA 300 of 2012 eliminated retiree premium coverage for new hires, and replaced it with a plan that provides a maximum 2% employer match on an employee's 2% of contributions into a personal health care 401k savings account.

## **FISCAL IMPACT**

Under the bill, there would be two areas of cost increases: the increase in costs due to lower assumed rates of return, and the increase in normal costs. Each of these is discussed below, and [Table 1](#) illustrates the costs and indicates whether the cost would be to the Michigan Public School Employees' Retirement System (MPSERS), the State Employees' Retirement System, the Judges Retirement System, or the State Police Retirement System.

### **Cost Increase: Lower Assumed Rates of Return in Out-Years for MPSERS**

When a system is closed, and after any legacy unfunded accrued actuarial liabilities (UAAL) have been paid off (i.e., there are no longer large "mortgage" payments coming into the system), the Bureau of Investments in the Department of Treasury has indicated that it will need to become more conservative in its investment strategy to meet the cash flow needs of the system, needing cash on hand to make pension payments. (This is also the recommendation of the State's actuaries.) Essentially, the reason for this is that when the existing UAAL (\$29.1 billion as of the 2016 valuation) is paid off (anticipated in 2038) and the large dollar contributions currently being made to pay down the UAAL are finished, it is likely that the assumed rate of investment return will need to be reduced from 7.5% to something that would be less risky in order to preserve principal and provide enough cash on hand to make payments and provide retiree health care coverage to what becomes basically a retiree-only system. The additional dollar costs vary and are based on how much lower the assumed rate of return becomes, and how the additional costs are financed.

The additional cost related to lowering the assumed rates of return in out-years would be a required cost increase. The Office of Retirement Services has provided information from the actuary indicating that, with the closure of the hybrid plan, the pension UAAL would increase

above the current estimate of \$29.1 billion depending on what rates of return are assumed in out-years, requiring additional funding to pay down the higher UAAL, which is separate from the question of accelerating funding on the current UAAL. In addition, the UAAL behind retiree health care in MPSERS would increase; the estimated combined UAAL increase for both pension and retiree health in MPSERS (if the hybrid were closed) is \$5.3 billion. This would be the amount of cash on hand needed if the costs were not financed.

If the \$5.3 billion in additional UAAL costs were financed instead of paid from cash on hand, there would be additional "interest" costs associated with the financing. The Office of Retirement Services provided estimates of the pension and retiree health care (i.e., other post-employment benefits, or OPEB) costs of lowering the assumed rate of return to 5%, *if they were amortized on the same schedule as the existing UAAL (roughly 20 years)*. These costs are \$379.0 million for pension and \$65.0 million for OPEB, for a combined cost of \$444.0 million in fiscal year 2018-19, growing 3.5% per year, for a total cost of financing the UAAL of \$10.7 billion.

However, the bill specifies a *40-year amortization schedule* for this 'additional' MPSERS UAAL, which is about 20 years longer than the amortization schedule in place for the existing UAAL. As shown in [Table 1](#), estimates of the additional MPSERS pension costs amortized on a 40-year schedule, as specified by the bill, are \$239.0 million in fiscal year 2018-19, growing 3.5% per year, for a total 40-year cost of \$19.3 billion. Estimates of the additional MPSERS OPEB costs amortized on a 40-year schedule are \$41.0 million in fiscal year 2018-19, growing 3.5% per year, for a total 40-year cost of \$3.3 billion. (Also, there would be State costs for other State retirement systems besides MPSERS, described below.)

The additional costs to fund the reduction in the assumed rates of return in the MPSERS in out-years would be borne by the School Aid Fund. The reason for this is the cap on the rate employers (schools) pay toward the UAAL, as enacted under Public Act 300 of 2012. If the existing UAAL were paid off and this "new" UAAL tied to the lowered rates of return were all that remained, at that point the remaining UAAL would be borne by employers (schools).

#### Cost Increase: Lower Assumed Rates of Return in Out-Years for Other State Plans

In addition to the costs described above for the MPSERS plan related to lowering rates of return in the out-years, there would be companion costs in the State Employees' Retirement System (SERS), the Judges Retirement System (JRS), and the State Police Retirement System (SPRS). Both SERS and JRS are closed systems, but to date, the assets in those systems, along with the assets in the SPRS for retiree health care, have been invested along with the MPSERS assets, and a 7.5% rate of return has been assumed to continue in the out-years because of MPSERS' open status.

However, if MPSERS were closed, ORS has provided cost estimates based on lowering the rates of return for SERS, JRS, and SPRS in the out-years, with the same investment assumptions as used for the cost estimates for MPSERS. The estimate for the SERS cost is \$91.0 million in FY 2018-19, growing somewhat over time through FY 2035-36 (when the SERS UAAL is projected to be paid off), for a total State cost of \$2.0 billion over that time period. The estimate for the JRS cost is \$333,000 per year, from FY 2018-19 through FY 2035-36 (when the JRS UAAL is projected to be paid off), for a total cost of \$6.0 million. The estimate for the SPRS cost is \$4.0 million in FY 2018-19, growing somewhat over time through FY 2035-36, for a total State cost of \$105.0 million. These costs would be part of the State budget, funded with a combination of General Fund/General Purpose funds, Federal funds, and State restricted funds in the proportion that those funding sources support salaries.

**Table 1**

**Estimated Costs\* under Senate Bill 401  
(Dollars in Millions)**

<b>Fiscal Year</b>	<b>Costs Due to Lower Rates of Return in Out-Years (MPSERS Pension)</b>	<b>Costs Due to Lower Rates of Return in Out-Years (MPSERS OPEB)</b>	<b>Costs Due to Lower Rates of Return in Out-Years (SERS Pension)</b>	<b>Costs Due to Lower Rates of Return in Out-Years (SERS OPEB)</b>	<b>Costs Due to Lower Rates of Return in Out-Years (JRS Pension)</b>	<b>Costs Due to Lower Rates of Return in Out-Years (SPRS OPEB)</b>	<b>Additional Normal Cost (MPSERS)</b>	<b>Total Costs Under SB 401**</b>
2017-18	\$0	\$0	\$0	\$0	\$0	\$0	\$20	\$20
2018-19	239	41	42	49	0.3	4	33	410
2019-20	247	43	42	51	0.3	4	48	436
2020-21	256	44	42	53	0.3	5	63	464
2021-22	<u>265</u>	<u>46</u>	<u>42</u>	<u>55</u>	<u>0.3</u>	<u>5</u>	<u>80</u>	<u>493</u>
<b>Five-Year</b>	<b>\$1,007</b>	<b>\$174</b>	<b>\$168</b>	<b>\$208</b>	<b>\$1</b>	<b>\$18</b>	<b>\$244</b>	<b>\$1,823</b>
<b>30-Year Total</b>	<b>\$11,695</b>	<b>\$2,017</b>	<b>\$760</b>	<b>\$1,206</b>	<b>\$6</b>	<b>\$106</b>	<b>\$11,107</b>	<b>\$26,898</b>
<b>40-Year Total</b>	<b>\$19,302</b>	<b>\$3,328</b>	<b>\$760</b>	<b>\$1,206</b>	<b>\$6</b>	<b>\$106</b>	<b>\$21,717</b>	<b>\$46,427</b>

\*The MPSERS Pension and OPEB amortization periods are prescribed in the bill not to exceed 40 years, with a payoff date for the additional MPSERS liabilities no later than September 30, 2057. The costs for SERS, JRS, and SPRS shown in the table reflect the current amortization schedule for paying off the liabilities in those plans, with an estimated completion date of 2036. The additional MPSERS normal costs would continue throughout the lifetime of the new defined contribution plan.

\*\*Total costs may not equal the sum of the columns due to rounding.

## General Information on the Costs Surrounding a Lowered AROR in Out-Years

The estimated additional costs that would be financed to pay for a lowered assumed rate of return (AROR) in out-years are required in the same manner that any payments toward unfunded accrued liabilities are required. If a payment is not made in the near term and a "mortgage" is due in the long term, the cost of that "mortgage" will be higher than if the payments are made earlier, due to interest costs. In the pension world, if payments toward the debt are not made today, then investment earnings on those payments are not generated, meaning the cost to the State (and its pension systems) is higher in the long term.

According to a 2016 study by the National Institute of Retirement Security, 68% of retiree benefit payments comes from investment earnings. If required costs were pushed off and paid in the future, they would be higher due to foregone investment earnings. Also, if the State did not make adequate payments toward its debts, it could face scrutiny by credit rating agencies, which would have to balance the long-term elimination of risk against any underpayments in the short run. Finally, the MPERS Act (MCL 38.1341) requires that any UAAL payments in excess of the rate cap of 20.96% of payroll be paid by appropriation from the School Aid Fund. The current estimate of the 2018-19 UAAL total rate, without the additional UAAL costs associated with lowering the AROR is 32.28% applied to payroll, or 11.32% above the 20.96% rate cap paid directly by schools. The estimated AROR UAAL payment, expressed as a percentage of payroll, is roughly 3%, meaning that the State's share of the UAAL payment would increase to 14.4%, which would be paid by the School Aid Fund.

### Cost Increase: Normal Costs

Assuming all new employees would contribute at least enough to maximize the employer match (i.e., contribute at least 3% of pay), and thereby receive a total of 7% in employer contributions (4% mandatory plus 3% matching), the additional "normal cost" once the entire system became part of a defined contribution-only plan is estimated at 2.83% of payroll in the initial years, growing slightly over time as the hybrid's normal cost declines. This is derived by looking at the difference between the 7% employer normal cost of a SERS-style DC plan and the current 4.17% normal cost of the existing hybrid plan (3.17% for the pension component, and 1.0% for the DC match), which will decline over time as more payroll enters the hybrid system, and the payroll increases as employees mature.

The additional normal cost would be an estimated \$20.0 million in the first year (which is a combination of converting existing DC-only participants to the new DC plan, plus new payroll), growing over time as more payroll moved into the SERS-style DC plan. By the time the entire payroll was part of the DC plan, the cost differential could approach the \$600 million-per-year range, assuming payroll growth over time. The estimated five-year additional cost would be \$244.0 million, the 30-year additional cost would be \$11.1 billion, and the 40-year additional cost would be \$21.7 billion above the estimated hybrid costs. All of the increase in normal costs would be borne by the School Aid Fund, as specified by the bill.

If participation were not 100% in the DC matching plan, these estimates would be adjusted by the actual participation. The State Employees' Retirement System DC plan is currently assuming 90% contribution on the 3% match when determining appropriations for budgets. Therefore, the costs estimated above would be 10% lower if the same 90% participation rate were assumed and budgeted.

It should be noted that the dollar estimates provided in the text above rely upon estimates made for payroll in the system over the next 30 years and beyond. To the extent the actual payroll deviates from the estimates, the dollar impacts shown above also would fluctuate. The percentages, however, would not change, with the exception of potential minor fluctuations in the hybrid normal cost that could occur over time if and when changes are made to underlying actuarial assumptions.

## Other Considerations

From the employer's perspective, moving to a DC-only plan would eliminate the potential for future unfunded accrued liabilities that could occur in a defined benefit plan if market performance were less than the assumed 7% rate of return or if other actuarial experience deviated from actuarial assumptions, but would cost more on a yearly normal cost basis due to the structure of the plan (roughly 7% normal cost compared to roughly 4% normal cost, applied to salary). From an employee's perspective, a DC-only plan can be more portable, but risk is assumed entirely by the employee.

## Historical Rates of Return

Table 2 below shows the historical rates of return earned by MPSERS investments.

<b>FY</b>	<b>Return Rate</b>	<b>10-Year</b>	<b>15-Year</b>	<b>20-Year</b>	<b>25-Year</b>	<b>30-Year</b>
1986	22.60%					
1987	23.00%	12.61%				
1988	-2.10%	11.74%				
1989	16.00%	12.80%				
1990	-3.30%	12.36%				
1991	17.30%	14.41%				
1992	8.90%	12.42%	10.71%			
1993	11.90%	11.11%	11.13%			
1994	2.30%	10.80%	10.89%			
1995	16.90%	10.97%	12.01%			
1996	15.20%	10.28%	13.24%			
1997	23.60%	10.33%	12.87%	11.47%		
1998	8.30%	11.45%	11.75%	11.60%		
1999	16.10%	11.46%	12.48%	12.13%		
2000	14.50%	13.36%	12.44%	12.86%		
2001	-11.50%	10.21%	10.02%	12.29%		
2002	-10.50%	8.07%	7.71%	10.22%	9.65%	
2003	14.80%	8.35%	8.86%	9.72%	10.01%	
2004	12.60%	9.39%	8.65%	10.09%	10.29%	
2005	12.80%	9.00%	9.77%	9.98%	10.80%	
2006	12.80%	8.77%	9.48%	9.52%	11.43%	
2007	17.20%	8.19%	10.02%	9.26%	10.97%	10.37%
2008	-12.30%	5.94%	8.25%	8.66%	9.38%	9.68%
2009	-6.10%	3.71%	7.63%	7.52%	8.89%	9.25%
2010	8.80%	3.18%	7.12%	8.15%	8.64%	9.54%
2011	6.60%	5.12%	6.56%	7.64%	8.03%	9.85%
2012	13.50%	7.65%	5.96%	7.86%	7.69%	9.36%
2013	12.50%	7.43%	6.23%	7.89%	8.29%	8.95%
2014	15.60%	7.71%	6.20%	8.55%	8.27%	9.30%
2015	2.60%	6.70%	5.42%	7.84%	8.53%	8.87%
2016	7.60%	6.20%	6.81%	7.48%	8.16%	8.40%

Source: Office of Retirement Services

Career Employee Example

According to the Office of Retirement Services, the actuary estimates that there is approximately a 45% probability that a new member coming into the hybrid plan will vest in the defined benefit component of that plan. (Similarly, around 44% of SERS participants reach full vesting in the State's DC plan.)

Table 3 illustrates what a career employee might receive under the proposed DC plan, compared to what the same employee would receive under the hybrid plan. It is important to note that the table shows two alternative scenarios: 1) the employee contributes into the proposed DC plan the same dollar amount that he or she is currently contributing into the hybrid plan (roughly 5.5% for the pension component plus 2% for the DC component, or roughly 7.5% of total salary), or 2) the employee contributes the minimum amount necessary to maximize the employer match (i.e., the employee contributes 3% of salary).

The parameters for the following example assume that the employee started at age 25, worked 35 years, and had a starting salary of \$36,000, and that salary grew by 2% per year. The table below shows various estimated monthly benefit levels based on differing market rates of return.

**Table 3**

<b>Estimated Pre-Tax Monthly Benefit upon Retirement: Hybrid and Proposed DC Plan Career Employee, Starts at Age 25 at \$36,000, Yearly Wage Growth 2%, Retires at Age 60</b>			
<b>ESTIMATED MONTHLY BENEFIT FROM AGE 60 to AGE 87<sup>a</sup></b>			
<b>Assumed Rate of Return</b>	<b>Hybrid (DB and DC)<sup>b</sup></b>	<b>SERS-Style DC if Employee Contributes Same as Hybrid (~7.5%)</b>	<b>SERS-Style DC if Employee Contributes Only 3%</b>
4%	\$3,500	\$2,580	\$1,770
5%	\$3,680	\$3,450	\$2,370
6%	\$3,930	\$4,600	\$3,200
7%	\$4,260	\$6,200	\$4,300
DB means Defined Benefit (pension); DC means Defined Contribution (i.e., a 401k or similar). SERS means State Employees Retirement System, which provides a 4% mandatory employer contribution plus 3% employer matching.			
<sup>a</sup> Age 87 was chosen because the Social Security Administration says a person age 25 today has a life expectancy of 87.5 years.			
<sup>b</sup> These scenarios spend the DC balance to \$0 by age 87. If a person lives past age 87, the hybrid pension component would continue, at \$2,970 monthly pre-tax.			
Note: The "SERS-Style DC if Employee Contributes Same as Hybrid (~7.5%)" analysis assumes that what a hybrid employee is currently contributing is what a new hire would contribute in the proposed DC-only plan, which would mean that roughly 14.5% of the employee's salary in total (~7.5% employee, 7% employer) was deposited into the employee's 401k. The "SERS-Style DC if Employee Contributes Only 3%" analysis assumes that a new hire contributes the minimum amount necessary (3%) to generate the maximum employer matching, which would mean that a total of 10% of the employee's salary (3% employee, 7% employer) was deposited into the employee's 401k. Under this second scenario, then, the employee would have lower contributions into the 401k but more disposable income.			
Any deviations in the actual rate of return compared to the assumed rate of return would affect the 401k/DC balances for both the hybrid and the proposed DC-only plan. However, the hybrid's pension component would not be affected.			

## Past GASB Requirement: Accelerated Funding

In the past, Governmental Accounting Standards Board (GASB) rules prescribed accelerated funding by moving contribution rates from a level percentage of payroll to a level dollar amount if a defined benefit pension system were closed to new hires. However, those rules are no longer in existence, meaning that the use of a level dollar amortization is not required for a closed plan. In addition, the bill would require contribution rates to remain calculated as a level percentage of payroll.

Even though the GASB does not "require" accelerated payments, it remains an actuarially recommended best practice to accelerate funding for a closed system for cash flow reasons, among other reasons. However, since the projected funded ratio of MPSERS does not reach 80% until 2030, even if the plan remains open, it could be argued that the amortization of the existing unfunded actuarial accrued liabilities UAAL should be accelerated, even if the plan were to remain open to new employees.

## **Summary of Fiscal Impact**

In FY 2017-18, the estimated cost to the School Aid Fund would be \$20.0 million. In FY 2018-19, the estimated cost to the School Aid Fund would be \$313.0 million. The cost to the other State budgets, paid for out of a mixture of General Fund/General Purpose revenue, Federal revenue, and other restricted revenue, is estimated at \$95.3 million. If GF/GP revenue makes up roughly one-half of the State spending in the budget (other than the School Aid budget), then the estimated GF/GP cost in FY 2018-19 would be roughly \$48.0 million. Costs would grow over time as shown in Table 1. Until the point at which the UAAL rate fell below 20.96% (likely around fiscal year 2037-2038), the only cost to schools would be the additional 1% of pay for employees who chose the optional DC and were moved into the new DC (roughly \$1.0 to \$2.0 million per year statewide). After 2038, any remaining UAAL that was amortized over the 40-year schedule would be paid by participating employers in MPSERS because, at that point in time, the UAAL rate would be under the 20.96% cap.

In addition, the State likely would face increased costs due to the requirement of the bill to offer a menu of lifetime annuity options as prescribed by the legislation. The addition of these categories of investments likely would require research, review, and monitoring of a vendor to provide the annuity options, although the costs to offer the annuities probably would be passed along to participants via fees charged by the vendor.

The requirement for ORS to provide a report every four years on assumptions and actual experience likely would not increase costs to the State. Every year, the valuations provide a look at how actual experience deviated from assumptions; those valuations contain much of the information that would be required of the four-year report.

Under a defined contribution system, the State and the schools would no longer be exposed to potential liabilities that can exist in a defined benefit system, and any market variance in rates of return would be borne by employees in the DC system. The bill therefore would eliminate the potential for State government exposure to liabilities for the MPSERS benefits provided to people hired on or after October 1, 2017. However, even if the hybrid were closed, there could be either increases or decreases in liabilities over time, as long as employees hired before October 1, 2017, remain in the MPSERS defined benefit plans (the legacy basic and MIP plans, and the hybrid), earning benefits while working and then receiving pension and applicable OPEB upon retirement.

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This analysis was prepared by nonpartisan Senate staff for use by the Senate in its deliberations and does not constitute an official statement of legislative intent.