



# THE STATE OF MICHIGAN

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## **The plans:**

Michigan has two large state-administered pension systems, one large state-administered municipal system, three smaller state-administered systems, and many locally-administered systems. The state also maintains two retiree health plans. This analysis, focuses on two of the three large state-administered systems – the Michigan Employees’ Retirement System (SERS) and the Michigan Public School Employees Retirement System (PSERS) – which make up nearly 80 percent of active public plan membership in the state.

## **The impact of the crisis:**

As a result of the economic crisis, the amount required to amortize unfunded liabilities increased dramatically for SERS and PSERS. For SERS, the amount jumped from 9 percent to 39 percent of payroll. Much of this large increase is due to the fact that SERS amortizes its unfunded liability in level dollar amounts, which has the effect of front loading amortization payments compared to rates calculated as level percent of payroll each year. Additionally, the SERS’ defined benefit plan was closed to new entrants in 1997 and has a declining payroll, which further inflates percent-of-payroll figures. For PSERS – which remains open to new entrants but also amortizes a portion of its unfunded liability in level dollar amounts – the increase in amortization payments was smaller but still significant, rising from 3 percent to 17 percent of payroll. Over the crisis period, both systems paid more than 80 percent of their annual required contribution. For the state as a whole, the economic crisis increased the share of state and local budgets devoted to pensions from 4.7 percent to 8.4 percent.

## **The impact of pension plan reforms:**

In 2012, PSERS made a major structural change in its retirement system, introducing a hybrid plan for new hires that combined a traditional defined benefit (DB) pension with a defined contribution (DC) plan. Compared to the original DB plan, the DB portion of the new hybrid system has a higher minimum retirement age, a longer average salary period and no cost-of-living adjustments. For the DC portion of the hybrid, employees contribute 2 percent of payroll, and the state pays a minimum of 1 percent. The plan design change will gradually reduce the projected employer’s contribution to the normal cost from 4 percent of payroll today to 3 percent in 2046, at which point all active employees will be covered under the hybrid system.

Since SERS is a closed plan with no new entrants, it simply increased current employee contributions in response to the crisis. A key element in the projected pension costs for SERS and PSERS will be each plan’s ability to stick with its funding schedule. If they succeed – the full funding date for SERS and PSERS is 2036 – and assumed returns materialize, the share of state and local budgets devoted to pension costs is projected to drop from 8.4 percent today to 3.9 percent by 2046.

## **Total state costs:**

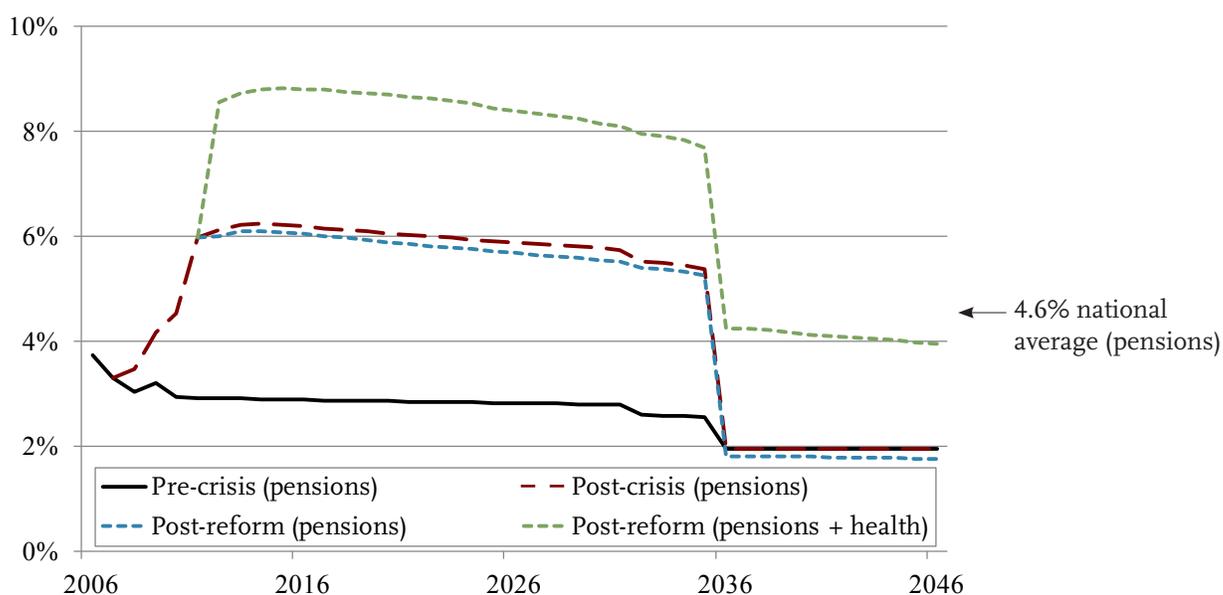
Michigan government also provides retiree health benefits, which amounted to 1.7 percent of state and local budgets prior to the crisis and are projected to grow to 2.2 percent by 2046. When retiree health and pension costs are combined, Michigan’s total retirement benefit costs as a percent of state and local budgets equaled 4.7 percent prior to the crisis, increased to 8.4 percent during the crisis, and are projected to drop to 3.9 percent in 2046 after pension reforms fully take effect.



# PENSION AND RETIREE HEALTH COSTS: PRE- AND POST-CRISIS

## MICHIGAN: TOTAL PENSION AND RETIREE HEALTH COSTS

FIGURE I. EMPLOYER PENSION AND RETIREE HEALTH COSTS AS PERCENT OF BUDGET: PRE-CRISIS, POST-CRISIS, AND POST-REFORM



Note: Budget = general own source revenues of all Michigan state/local governments. Retiree health costs assumed pay-as-you-go.

TABLE I. EMPLOYER PENSION AND RETIREE HEALTH COSTS AS PERCENT OF BUDGET, BY PLAN

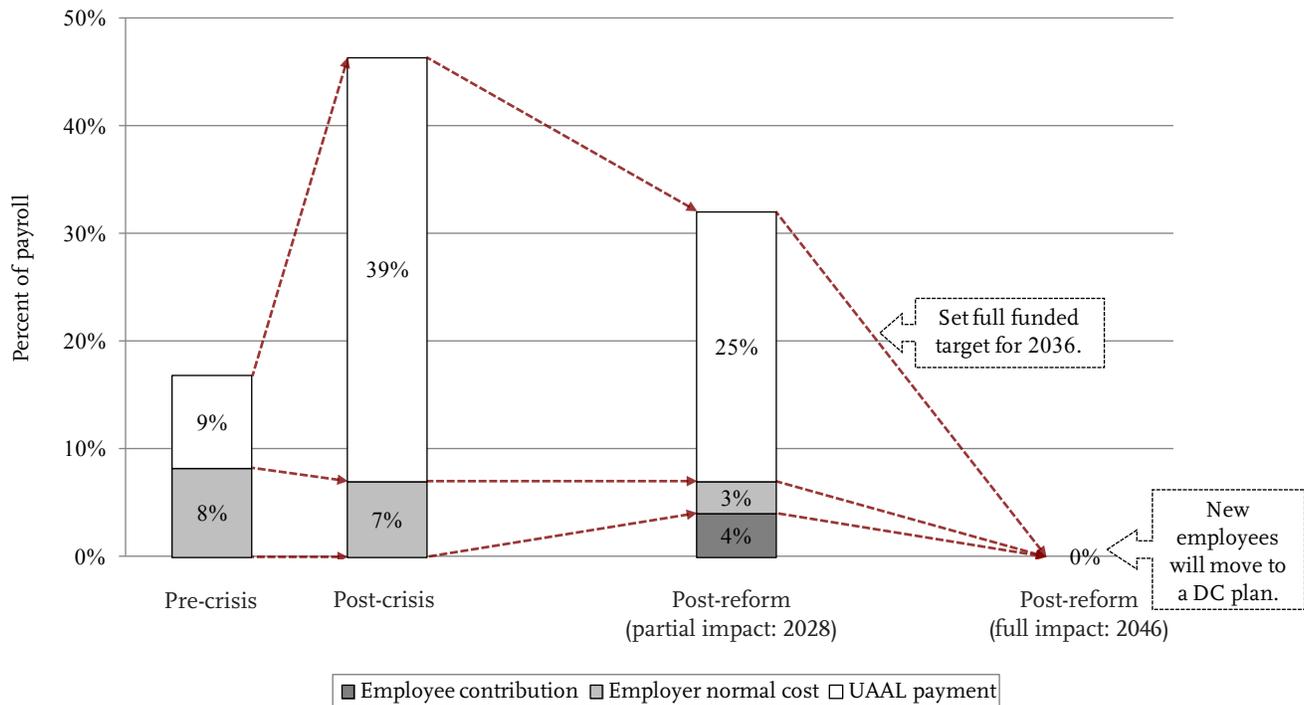
Plan	Pre-crisis	Post-crisis	Post-reform	
			2028	2046
Total pensions	3.0 %	5.9%	5.6%	1.7%
Michigan SERS	0.5	1.3	0.8	0.0
Michigan PSERS	1.3	3.3	3.5	0.4
Other pension plans <sup>a</sup>	1.2	1.3	1.3	1.3
Total retiree health	1.7	2.5	2.7	2.2
State employees	0.6	0.8	0.8	0.7
Public school employees	1.1	1.7	1.9	1.5
Total	4.7	8.4	8.3	3.9

<sup>a</sup> Includes the Michigan State Legislative, Judges, Police, and Municipal Employees retirement systems, as well as all the locally-administered plans within Michigan.

Sources: CRR calculations from plan actuarial valuations; and U.S. Census Bureau, *State and Local Government Finances* and *State and Local Public-Employee Retirement Systems*.

## MICHIGAN STATE EMPLOYEES RETIREMENT SYSTEM (SERS)

FIGURE 2. PENSION COSTS AS PERCENT OF PAYROLL: PRE-CRISIS, POST-CRISIS, AND POST-REFORM



### KEY FACTS

#### Structure of retirement system

- Social Security coverage
- Defined benefit
- Defined contribution/hybrid

#### Funding method and history

- Set by statute
- Actuarially determined

Closed to new hires in 1997. Due to declining payroll, UAAL is amortized as level dollar rather than constant percent of payroll.

#### Plan design changes

- Cut COLA
- Increased employee contribution: all employees
- Increased age/tenure eligibility
- Increased average salary period
- Reduced benefit factor
- None

TABLE 2. PENSION FINANCES AND ACTUARIAL ASSUMPTIONS

Item	Pre-crisis	Post-crisis	Post-reform	
			2028	2046
<b>Plan finances</b>				
Funded ratio	86.2 %	65.5 %	-	-
Employer ARC rate	16.8	46.4	28.1	0.0
Percent of ARC paid*	47.7	94.8	100	100
<b>Assumptions</b>				
Discount rate	8.0	8.0	8.0	8.0
Payroll growth	3.5	3.5	3.5	3.5
Amortization period	29 yrs.†	25 yrs.†	8 yrs.†	0 yrs.†

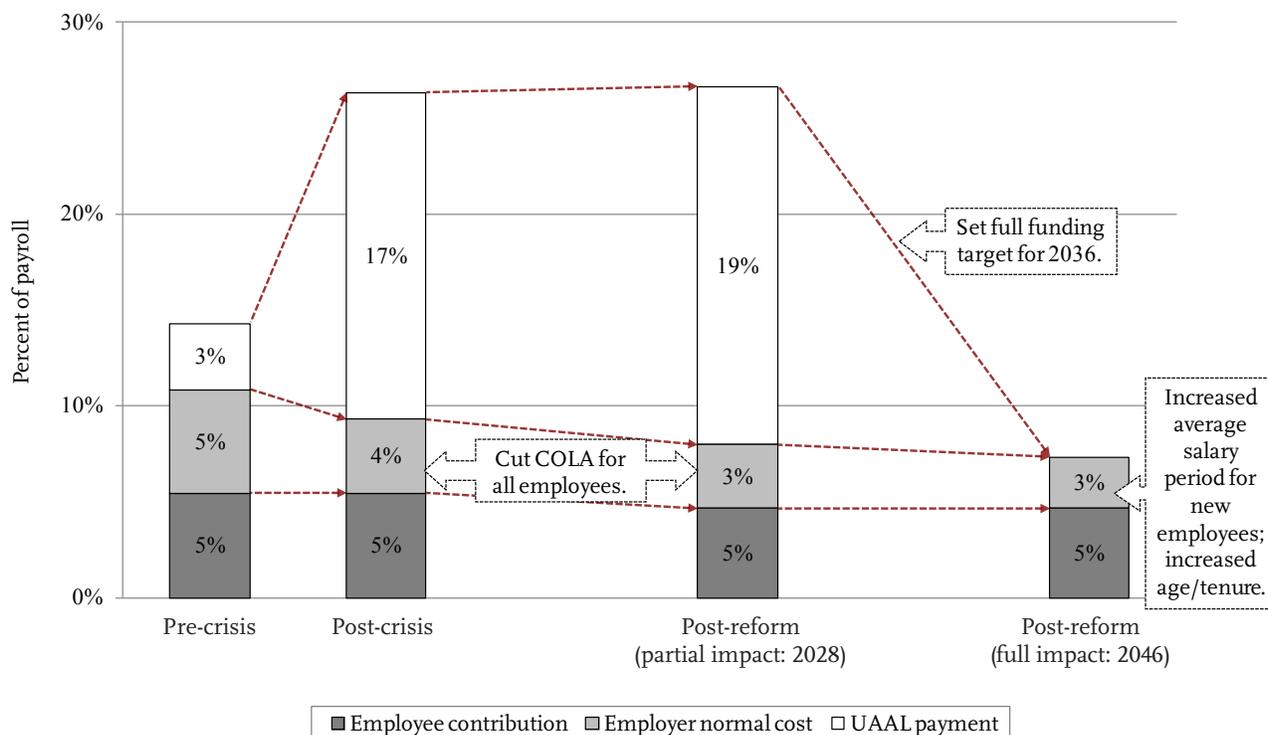
\* Percent of ARC paid is calculated ex-post-facto. Each year, the system pays the full ARC as it is known at the beginning of the year.

† Level dollar amortization.

Sources: Actuarial valuations and CRR calculations.

## MICHIGAN PUBLIC SCHOOL EMPLOYEES RETIREMENT SYSTEM (PSERS)

FIGURE 3. PENSION COSTS AS PERCENT OF PAYROLL: PRE-CRISIS, POST-CRISIS, AND POST-REFORM



### KEY FACTS

#### Structure of retirement system

- Social Security coverage
- Defined benefit
- Defined contribution/hybrid

#### Funding method and history

- Set by statute
- Actuarially determined

Pre-crisis, averaged 93 percent of GASB-required ARC. Post-crisis, the rate dropped to 81.5 percent in 2011.

#### Plan design changes

- Cut COLA: new hires only
- Increased employee contribution
- Increased age/tenure eligibility: new hires only
- Increased average salary period: new hires only
- Reduced benefit factor
- None

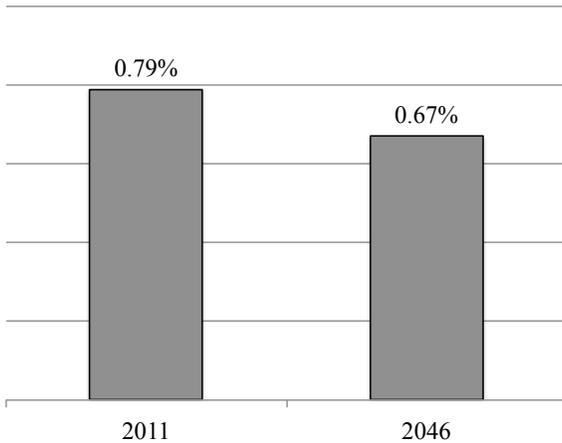
TABLE 3. PENSION FINANCES AND ACTUARIAL ASSUMPTIONS

Item	Pre-crisis	Post-crisis	Post-reform	
			2028	2046
<b>Plan finances</b>				
Funded ratio	88.7 %	64.7 %	-	-
Employer ARC rate	8.9	21.0	22.0	2.7
Percent of ARC paid	90.8	81.5	100	100
<b>Assumptions</b>				
Discount rate	8.0	8.0	8.0	8.0
Payroll growth	3.5	3.5	3.5	3.5
Amortization period	29 yrs.	25 yrs.	8 yrs.	0 yrs.

Sources: Actuarial valuations and CRR calculations.

MICHIGAN STATE EMPLOYEES' RETIREE HEALTH BENEFITS

RETIREE HEALTH AS PERCENT OF BUDGET

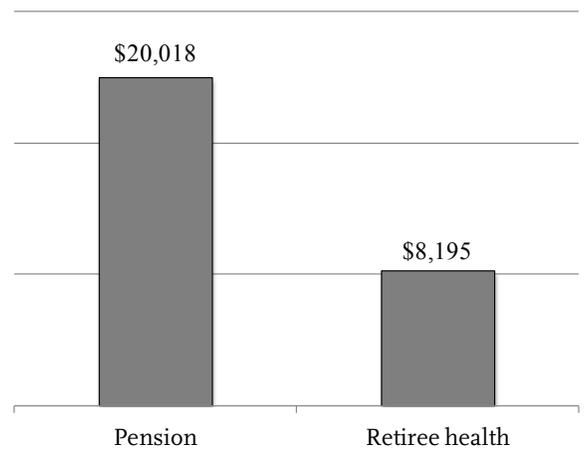


Sources: CRR calculations from plan actuarial valuations; and U.S. Census Bureau, *State and Local Government Finances*.

*Retiree health funding and costs*

- Funding method: Pay-as-you-go
- Medical inflation rate: 9.0 percent, drops to 3.5 percent by 2023.
- Employer contribution: Pays 90 percent of premium for retirees under age 65, and 100 percent of premium for Medicare-eligible retirees.

AVERAGE ANNUAL BENEFIT



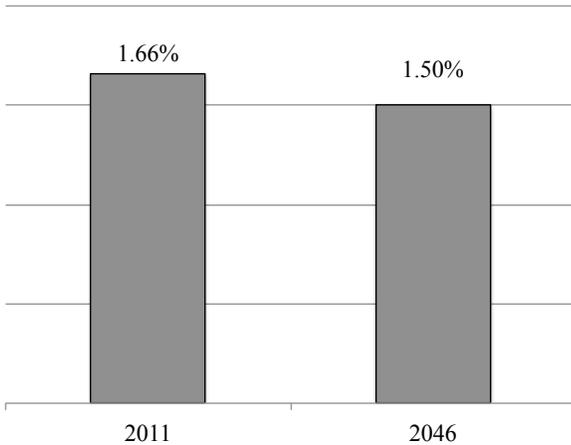
Source: CRR calculations from plan actuarial valuations.

*Benefits and membership*

- Benefit eligibility: Any member receiving a pension benefit is eligible for retiree health benefits.
- Benefits for Medicare-eligible retirees: Participate in the same plans as non-Medicare eligible participants, but pay lower premiums.
- Active employees: 50,861
- Beneficiaries: 55,648
- Most recent actuarial valuation: 9/30/11

MICHIGAN PUBLIC SCHOOL EMPLOYEES' RETIREE HEALTH BENEFITS

RETIREE HEALTH AS PERCENT OF BUDGET



Sources: CRR calculations from plan actuarial valuations; and U.S. Census Bureau, *State and Local Government Finances*.

*Retiree health funding and costs*

- Funding method: Pay-as-you-go.
- Medical inflation rate: 8.5 percent, drops to 3.5 percent by 2023.
- Employer contribution: Pre-2008 retirees are fully paid for if on Medicare, and pay a premium equal to the Medicare rate if not on Medicare.

AVERAGE ANNUAL BENEFIT



Source: CRR calculations from plan actuarial valuations.

*Benefits and membership*

- Benefit eligibility: Pension recipients are eligible for subsidized coverage.
- Benefits provided for Medicare-eligible retirees: Covered by a Medicare-Advantage plan.
- Active employees: 236,660
- Beneficiaries: 192,435
- Most recent actuarial valuation: 9/30/11