Memorandum

Date: October 31, 2013

To: Ellen S. Horsch, Vice President for Administration
Michigan Technological University

From: Jason Horwitz, Consultant

Re: Reforming University Payments to the Michigan Public School Employees Retirement System

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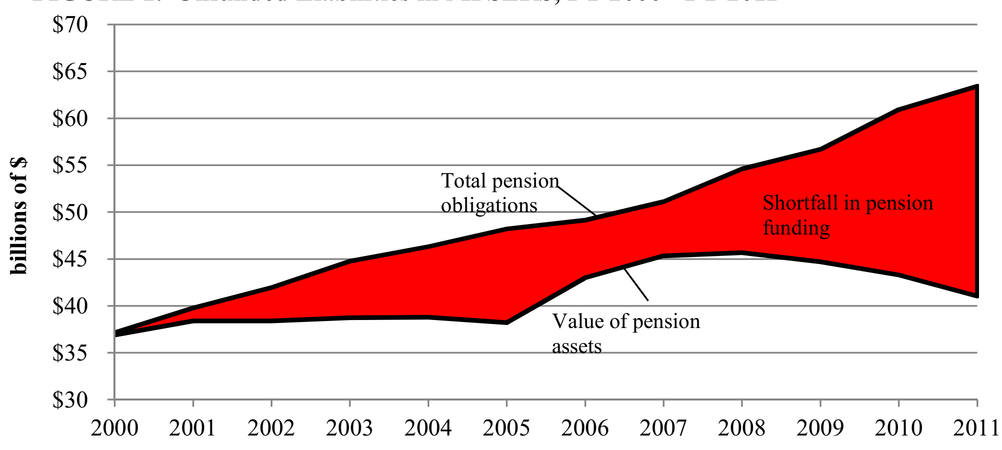
Overview

Largely due to poor investment returns, the unfunded actuarial accrued liability (UAAL) of the Michigan Public School Employees Retirement System (MPSERS) has grown substantially over the last decade, as shown in Figure 1 below.[1] To compensate, all employers have increased the annual amount they contribute to the system in order to finance the benefits promised to both current and retired employees. In addition, payrolls have remained flat as declining funding from state government and declining enrollment have suppressed employment growth at schools and universities across the state.

FIGURE 1. Unfunded Liabilities in MPSERS, FY 2000 - FY 2011



Source: MPSERS Comprehensive Annual Financial Reports
Analysis: Anderson Economic Group, LLC

1. Other factors that contributed to the rise in the UAAL include: a) an early retirement program in 2010 that provided larger benefits at an earlier date than what was assumed by the system's actuary; b) retirees living longer than assumed by the system's actuary; and c) a much lower payroll trajectory than assumed by the system's actuary.

As a result, the employer contribution rate for MPSERS, as a percent of payroll, has increased substantially in recent years. These increased contributions are crippling for many school districts, community colleges, and universities. Annual state appropriations and other revenue sources have not risen to cover increasing MPSERS obligations.

Partially in response to this problem, the State passed Public Act 300 of 2012 (PA 300), which provided considerable relief to K-12 schools and community colleges by capping their payments for unfunded liabilities. The seven universities that have employees and retirees who are enrolled in the MPSERS plan did not receive the same relief.

Michigan Technological University, on behalf of all seven MPSERS universities, retained Anderson Economic Group to analyze the costs of reforming MPSERS. This memorandum summarizes our analysis of a potential reform to MPSERS, modeled on PA 300, that would provide some relief and stability to the seven participating public universities. The seven universities include: Central Michigan University, Eastern Michigan University, Ferris State University, Lake Superior State University, Michigan Technological University, Northern Michigan University, and Western Michigan University.

PROPOSED REFORM

In this memo, we estimate the change in costs associated with the following reform for the State of Michigan and the seven universities with employees in MPSERS:

- **Replace the current pay-as-you-go method for funding retiree health benefits for university retirees with a prefunding method.** Retiree health benefits are not prefunded for the universities. Rather, universities pay their share of health insurance premiums for retirees as the bills come due (pay-as-you-go). Pay-as-you-go systems are unpredictable and can result in ballooning costs. Even though the system is closed, the MPSERS universities will be paying retiree health care costs through MPSERS for the next 40 years for those remaining in the system.

  Though the funding mechanism was different, K-12 schools and community colleges were in a similar situation prior to passage of PA 300. School districts were paying for their retirees' health care as the bills came due. In order to rein in future increases in health care costs for school districts, PA 300 closed the retiree health care system in MPSERS to new employees and began to prefund the obligations already vested for future retirees. The reform that we outline in this memo would do the same for the health benefits owed to university retirees enrolled in MPSERS. Like with university pensions, we amortize the unfunded liability for retiree health care such that the system will be fully prefunded by the year 2036.

- **Institute a cap (expressed as a percent of combined payroll) on employer contributions for total UAAL payments for pension and retiree health benefits.** In order to address the recent volatility and inexorable increases in unfunded liability payments, and to ease the short-term cost increase from prefunding retiree health care, PA 300 placed a cap on the UAAL portion of K-12 school and community college payments to MPSERS. Under that cap, K-12 schools and community colleges would never need to pay more than the UAAL payments they made in fiscal year 2011, as a share of total eligible payroll (20.96%). Given that universities face similar issues, this proposal would similarly place a cap of 20.96% on total UAAL payments for retiree health care and pensions, as a share of combined payroll.[2]

2. The term "combined payroll" in this memorandum refers to payroll for employees who are enrolled in MPSERS as well as employees who would have been eligible for MPSERS if they were hired prior to 1996, when the system was closed to university employees.

Any required contributions for UAAL that exceeded this cap would be paid by the state School Aid Fund.

SUMMARY OF FINDINGS

Our research and analysis resulted in the following findings:

1. Under current law, we estimate that total university payments to MPSERS will increase from $57.2 million in fiscal year 2014 to $87.1 million in fiscal year 2036.

The seven universities with employees in MPSERS are required to make annual payments to the system for pension normal costs, pension unfunded actuarial accrued liabilities, and health care benefits for current retirees.[3] Under current law, in fiscal year 2014, we estimate these payments will total $57.2 million, or about 31% of combined payroll. By fiscal year (FY) 2036, we estimate these payments will increase to $87.1 million, or about 35% of combined payroll in that year.

After the year 2036, the university will no longer be required to make pension UAAL payments, but will continue to pay for retiree health care, which will cost approximately $20 million in 2037 and decline in the following years. See "Baseline Scenario" on page 7 for a discussion about, and our projections of, future MPSERS payments under current statutory provisions. (All dollar amounts in this report are in nominal terms. They are not adjusted for inflation.)

Table 1 below summarizes estimated total university MPSERS payments in FY 2014, FY 2025, and FY 2036 under current law.

TABLE 1. Total Annual Required University Payments to MPSERS Under Current Law (millions)

Required Payment	FY 2014	FY 2025	FY 2036
Pension Normal Costs	$2.3	$0.4	$0.04
Pension UAAL Costs	$31.0	$45.3	$66.1
Retiree Health Care	$23.8	$29.3	$20.9
TOTAL	**$57.2**	**$75.1**	**$87.1**

Sources: Office of Retirement Services, MPSERS universities, AEG estimates
Analysis: Anderson Economic Group, LLC

2. The universities as a group, as well as each university individually, would realize immediate annual savings from MPSERS reforms associated with prefunding retiree health care benefits and capping the annual employer contribution for unfunded actuarial accrued liabilities.

In the first year (FY 2014) of prefunding health care and instituting a 20.96% cap, we estimate that the universities, in aggregate, would save $14.9 million compared to the baseline scenario.

Table 2 on page 4 summarizes the net savings to each university in FY 2014, 2025, and 2036. Not shown are the ongoing savings to MPSERS universities after 2036, when their retiree health care plans will be fully funded and they will no longer be required to make payments into the system. See

3. Normal costs refer to the present value of marginal future benefits that active participants in a pension plan earn in the current year. Retiree health care is paid on a cash basis; universities are assessed monthly for a portion of the health care premiums (80% or 90%) for their current retirees.

"Reform Scenario" on page 9 for a discussion of the reform and the projected savings relative to the baseline scenario.

TABLE 2. Annual Net Savings for Each University Under MPSERS Reform Scenario (millions)

University	FY 2014	FY 2025	FY 2036
Northern Michigan	$1.7	$3.3	$3.5
Western Michigan	$2.7	$6.3	$6.8
Eastern Michigan	$2.0	$4.0	$4.2
Ferris State	$2.7	$5.0	$5.5
Central Michigan	$3.2	$7.1	$8.7
Michigan Tech	$1.9	$3.8	$4.5
Lake Superior State	$0.7	$1.2	$1.1
TOTAL	**$14.9**	**$30.7**	**$34.3**

Sources: Office of Retirement Services, MPSERS universities, AEG estimates
Analysis: Anderson Economic Group, LLC

3. *Prefunding retiree health care for MPSERS universities and placing a 20.96% cap on UAAL payments for universities would result in an additional cost of $15 million for the State in FY 2014, increasing to an additional cost of $62 million to the State by the year 2036. There would be no additional costs to the State after that year.*

Under the proposed reform, all MPSERS universities would begin to prefund their retiree health care, which is currently paid for on a pay-as-you-go, cash basis. Like the reforms in PA 300, there would also be a cap on UAAL payments from the universities at 20.96%, with the remainder of the UAAL costs being covered by the State.

Given a prefunded system and a payroll cap of 20.96% on university UAAL payments, we estimate that costs to the State would be approximately $15 million in the first year after implementation of the proposed reform. This total would increase to approximately $60 million by the year 2036, according to our projections.

OVERVIEW OF APPROACH

To estimate the change in costs for the universities and the State under the proposed reform, we estimated the future MPSERS costs for each university through fiscal year 2036 based on current law provisions (the baseline scenario). We compared the cost under the proposed reforms (the reform scenario) to the baseline scenario, estimating the share of the total annual UAAL payment (pension and retiree health) that each university would be required to pay and the amount that the State of Michigan would be required to cover.

To complete our analysis of each scenario we used the following data and information:

- MPSERS actuarial reports for the seven universities as a group and MPSERS actuarial reports for the entire system (including the seven universities). These reports were obtained from the Office of Retirement Services;
- 2013 insurance premiums for retiree health care and dental/vision plans obtained from the Office of Retirement Services;

- Active MPSERS payroll, payroll for those who would have been MPSERS members if employed before 1996, and total payroll at each university over the last ten years;
- Number of current MPSERS retirees by age for each university;
- Number of current active MPSERS employees by age for each university; and,
- Data on life expectancy and health care costs for different age groups.

To estimate the total amount needed each year to prefund retiree health care, we projected the total amount of future liabilities for retiree health benefits for current MPSERS employees and current MPSERS retirees. These projections were based on the number of employees/retirees eligible for retiree health benefits and assumptions about health care premium growth.

The results presented here are estimates, and we cannot account for changes in health care policy or future legislative behavior. Policy changes that affect insurance premiums could affect future costs in ways not contemplated by this analysis.

KEY ASSUMPTIONS

To complete our analysis, we made a number of key assumptions. These included the following:

- We estimated future payroll growth for each university using two factors. We assumed that the annual growth rate over the recent ten-year period for combined MPSERS and non-MPSERS payroll would continue in the short term. In the long term, we assumed that this growth rate would gradually reach 2% by 2036.[4]
- We assumed an average annual rate of return would match that assumed by actuaries (7% for the share of employees hired since July 2010, 8% for other members).[5]
- We assumed that, in all future years, normal costs for pensions would continue at their FY 2014 rate for the universities (3.0%), and that normal costs for retiree health care for the universities would be the same as those for other reporting units in FY 2013 (0.93%).
- We assumed that the universities would continue to see no change in their retiree health care liability due to the required 3% contribution from active MPSERS employees for retiree health care. See "Legal Questions" on page 10 for more details.
- We assumed that the UAAL cap contained in PA 300 (20.96%) will not apply to university pension UAAL payments. See "Legal Questions" on page 10 for more details.
- When estimating future retiree health care costs, actuaries assume near-term health insurance premium increases of 8% annually, decreasing to 3.5% annual increases in the long run. We have used these same estimates for annual premium increases in estimating future retiree health care costs.

4. MPSERS actuaries assume that future payroll will grow at an annual rate of 3.5% when estimating the annual required contribution (ARC).
5. As the experience of the past five years has shown, investment returns are volatile, but recent measures of *long-term* performance are close to 8%. The annualized rate of return for the MPSERS portfolio in the 10-year period ending September 30, 2012, was 7.7%.
Michigan Public School Employees Retirement System, 2012 Comprehensive Annual Financial Report, pg. 70.

Background

In this section, we provide a brief history of the seven universities' participation in the MPSERS retirement stem. We also provide a summary of Public Act 300 of 2012, a law passed last year that significantly altered MPSERS benefits and funding. We model the reform analyzed in this memo after some of the provisions of PA 300.

HISTORY OF MPSERS AND THE SEVEN UNIVERSITIES

The Michigan Public School Employees' Retirement System (MPSERS) was established by the Michigan Public School Employees Retirement Act (MPSERA) in the year 1945. At the time of its adoption, all K-12 public schools and various community colleges were required to participate, as well as all public universities in the state at the time except for the University of Michigan, Michigan State University, and Wayne State University. Some universities that opened shortly thereafter were also brought into MPSERS, but public universities founded after 1950 were not required to participate in the retirement system and have their own, separate arrangements for retirement benefits.[6]

Until 1974, MPSERS was funded by the State. The State paid to fund the pensions for all employees of K-12 public schools, community colleges, and the seven universities participating in MPSERS. In the years 1974 and 1975, two significant changes were made by the legislature. They began to require a portion of funding for the system (less than ten percent) to be paid by participating schools in 1974, and added retiree health benefits in 1975. The share of funding required from universities and school districts began to increase in the early 1990s.[7]

In 1994, the State dramatically changed its financing for public K-12 schools under Proposal A. Among the many changes that followed implementation of Proposal A, the State amended MPSERA so that all employers with employees participating in MPSERS were fully responsible for funding the retirement benefits made available through MPSERS. A year later, the universities wanted to get out of the MPSERS retirement system.

Public Act 272 of 1995. The law that closed the MPSERS system to new employees of the universities was passed in 1995 and went into effect in early 1996. Some highlights are below:

- All employees of higher education institutions who were hired after January 1, 1996, were no longer eligible to receive MPSERS benefits.
- Universities were required to pay a separate contribution rate for MPSERS benefits from other reporting units, based on characteristics of their active and retired members, and details outlined in the following bullet point.
- The portion of that contribution rate for unfunded actuarial accrued liabilities in the pension plan would be amortized over a time period ending in FY 2036. In other words, any unfunded liabilities needed to be fully paid by the end of FY 2036, and payment schedules would be determined based on that deadline.

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6. Kyle I. Jen and Bethany Wicksall, "Public Universities in the Michigan Public School Employees Retirement System," Memorandum to the House Appropriations Subcommittee on Higher Education, April 5, 2012.
7. David L. Eisler and Sally Depew, "The Funding of Higher Education in Michigan: The Economic Importance of Higher Education, Higher Education Funding, and MPSERS," testimony before the House Appropriations Subcommittee on Higher Education, March 29, 2006.

- Payments for unfunded liabilities would be based on combined payrolls, which include active members of MPSERS as well as university employees who would have been eligible to enroll in MPSERS prior to 1996.

SIGNIFICANT CHANGES TO MPSERS IN 2012

Public Act 300 of 2012 amended the Michigan Public Schools Employee Retirement Act and made a number of changes designed to address the escalating cost pressures of MPSERS liabilities for employers. These changes included:

- Higher employee contribution rates for employees who wish to maintain the current pension multiplier (the size of their benefits relative to their earnings during employment);
- An optional defined contribution plan in lieu of the current defined benefit or hybrid pension plan;
- Elimination of the defined benefit health care plan for all future employees, replacing it with a defined contribution health care plan;
- An increase in the percentage, from 10% to 20%, that current retirees below age 65 and future retirees must pay toward their retiree health care premiums;
- A requirement that schools prefund retiree health care benefits (this provision appears not to have applied to universities, who continue to pay for retiree health care benefits on a pay-as-you-go basis);
- A cap on the employer share of annual UAAL payments (pension and health) at 20.96% of payroll for eligible MPSERS employees, with the State paying any UAAL contributions above the cap from the School Aid Fund;[8] and,
- A study by the seven MPSERS universities on changes to the scope and design of retiree health benefits, which would provide recommendations to the Office of Retirement Services by August 31, 2013.

All of these changes, other than the provisions related to prefunding retiree health and the study of university retiree health care, applied to all MPSERS employers (school districts, libraries, community colleges, and universities). The seven MPSERS universities were excluded from the retiree health prefunding aspects of the MPSERS reforms. Instead, the universities are required to continue to pay for retiree health costs for their retirees on a pay-as-you-go basis. It is unclear whether the cap on UAAL payments will apply to university pension payments. In the analysis provided in this memorandum, we assume that the cap will not apply. See “Legal Questions” on page 10 for more information.

Baseline Scenario

The seven universities are assessed costs for MPSERS related to: pension normal costs, pension unfunded liability, and retiree health care premium costs. The costs to fund retiree health care and pensions for the seven universities are increasing rapidly. Figure 2 on page 8 shows total MPSERS costs for the universities by component, including actual payments from FY 2003 to FY 2013, and projections for FY 2014 to FY 2043. Projected MPSERS costs for each university under the baseline scenario are shown in Exhibit 1 on page 13. We summarize our projections for each of these costs below.

8. In fiscal year 2013, $161 million was appropriated for this purpose for K-12 school districts, community colleges, and other employers (not including universities). In fiscal year 2014, the appropriation from the School Aid Fund to cover UAAL payments above the cap totals $405 million.

PENSIONS

Pension normal costs for the MPSERS system are assessed at 3% of active payroll in FY 2014. This rate is at historic lows. Because normal costs are paid as a share of payroll for active MPSERS employees at each school and the system is closed to new members, this cost will decrease from its fairly low level for the next several decades. We estimate that total MPSERS normal pension costs in FY 2014 will be $2.3 million, and these costs will drop below $1 million annually in FY 2020 and beyond.

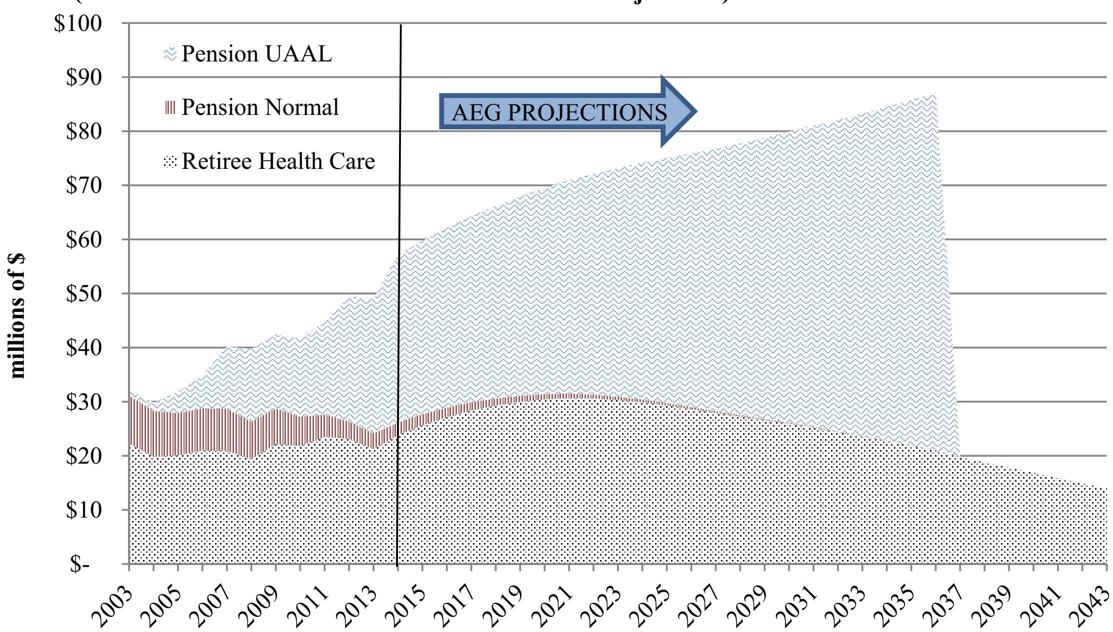
Due primarily to poor market returns, the pension unfunded liability for universities has increased considerably over the past few years to over $400 million. In FY 2014, the contribution from universities for the pension unfunded liability alone will be 16.6% as a share of combined payroll, or $31 million. This required unfunded liability payment will then increase considerably, to $66 million, by the year 2036. In that year, we estimate that the unfunded liability payment will be equal to 26.3% of combined payroll.

RETIREE HEALTH CARE

The universities in MPSERS currently pay for retiree health care using a pay-as-you-go system. The bills they pay correspond directly to the amount they owe for premiums in a given period. This system is not prefunded. According to our projections, retiree health care premium costs for all universities combined will peak at $31 million in FY 2021, an increase from this fiscal year's projected costs of $24 million. By FY 2043, the end of the 30-year period we examined for this analysis, retiree health care costs will remain fairly high, at $14 million. This is because there will still be about 1,000 retirees receiving benefits in that year.

Figure 2 below illustrates the projected baseline costs for pensions and retiree health care.

FIGURE 2. Past and Future Pension and Retiree Health Care Costs for Universities, FY 2003 to FY 2043 (FY 2014 to FY 2043 numbers based on AEG Projections)



Sources: Office of Retirement Services, MPSERS universities, AEG estimates
Analysis: Anderson Economic Group, LLC

Reform Scenario

Under the proposed reform, universities would begin to prefund retiree health care for university retirees and place a cap on future UAAL payments for retiree health care and pensions combined. The cap is equal to that for other reporting units, as stated in PA 300 of 2012—20.96% of combined payroll. "Combined payroll" includes both employees who are current members of MPSERS, as well as employees hired since 1996 who would have qualified to participate in the MPSERS retirement system if it remained open to the universities.

Prefunding retiree health care for the seven universities and establishing an employer contribution cap for total employer UAAL payments to MPSERS would result in immediate savings for the universities. As a result of the employer cap, the State of Michigan would pick up some of the costs for MPSERS that universities would otherwise have to pay. We assume that the State's contribution would be financed by an appropriation from the School Aid Fund, as is the case with the employer cap for other reporting units.

IMPACT ON UNIVERSITIES

To begin prefunding health care, the universities would need to start paying down their unfunded liability. Based on our projections, the universities' current UAAL for retiree health care is $330 million.[9] We estimate that prefunding retiree health care will require a payment into the system totaling 12.1% of payroll in FY 2014, or $22.6 million. This required payment amount would increase by 3.5% each year, barring any significant changes in the rate of return on assets or the cost of retiree health care.[10] This prefunding formula would result in a fully funded system by the year 2036, as with pensions. After FY 2036, barring a drop in the value of MPSERS assets or an unanticipated increase in liabilities due to higher health care costs or greater longevity, the universities would no longer be required to pay bills for retiree health care from that point on.

In FY 2014, the universities would realize total savings of $15 million compared to the baseline scenario. By FY 2024, these annual savings would exceed $30 million and remain above that amount until the liabilities are fully funded in FY 2036. Over that entire 22-year period, we project total savings to the universities of $660 million. These savings do not include the ongoing savings that the universities would realize after FY 2036 because they will no longer be required to make pay-as-you-go retiree health care payments. We show the portion of the total MPSERS obligations that the universities, as a group, will have to pay for each fiscal year in Figure 3 on page 10.

IMPACT ON SCHOOL AID FUND

In FY 2014, the School Aid Fund (SAF) would pay $14 million to cover UAAL costs that exceed the 20.96% cap. By FY 2036, this annual payment will be approximately $62 million. Total additional costs to the State over this 22-year period would be $825 million. We show the portion of the total MPSERS obligation that the SAF will pay in Figure 3 on page 10.

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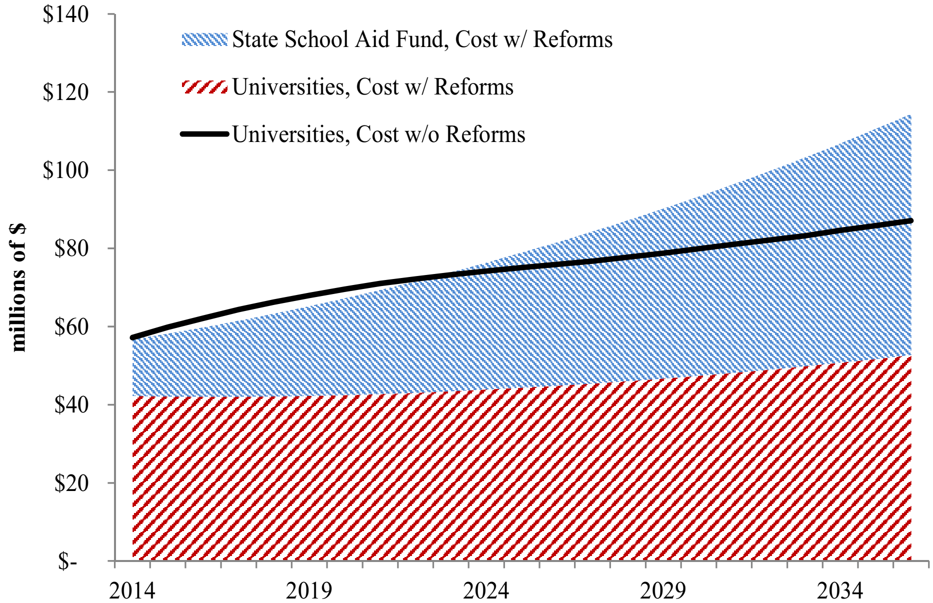
9. The $330 million UAAL estimate is based on an assumption that the university will pay 0.96% of active employee payroll for retiree health care normal costs if they begin to prefund retiree health care.

10. The 3.5% annual growth in UAAL payments is based on the actuarial assumption that payroll will increase by 3.5% annually. Since unfunded liability payments are estimated such that the employer pays for them at a constant share of payroll over the years, projected payroll growth will correspond to the projected growth in payments.

FIGURE 3. Annual Pension and Retiree Health Care Costs to Universities and the School Aid Fund, Reform Scenario (millions), FY 2014 to FY 2043



Sources: Office of Retirement Services, MPSERS universities, AEG estimates
Analysis: Anderson Economic Group, LLC

TABLE 3. Required Annual Payments by Universities and the School Aid Fund for Pension and Retiree Health Care Obligations, Reform Scenario Compared to Baseline, FY 2014 to FY 2036

				Total Required Payment (millions)			
Scenario	**Prefunded Health Care?**	**Cap on UAAL Payments**	**Payer**	**FY 2014**	**FY 2025**	**FY 2036**	**Total FY 2014 - FY 2036**
Baseline	no	N/A	Universities	$57.1	$75.1	$87.0	$1,706.0
			School Aid Fund	N/A	N/A	N/A	N/A
Reform	yes	20.96% of combined payroll	Universities	$42.3	$44.3	$52.7	$1,045.4
			School Aid Fund	$14.5	$34.6	$61.7	$825.2

Sources: Office of Retirement Services, MPSERS universities, AEG estimates
Analysis: Anderson Economic Group, LLC

Legal Questions

There are a few details about university participation in MPSERS that are unclear based on previous legislation. In those cases, we made an assumption about how the law should be interpreted. In addition, there are some questions left about how the policy reform we outline in this memo would be administered. We discuss some of the more important legal questions below.

Does the 20.96% cap already apply to universities?

PA 300 put in place a cap on combined UAAL payments for pensions and retiree health care. That cap is set at 20.96% of all eligible and qualified members of MPSERS. Though the universities do not currently make payments for health care UAAL, according to our estimates, the payments to cover pension UAAL alone from universities will exceed 20.96% of combined payroll starting in FY 2024.[11] If the language placing the cap on these totals already applies to universities, then the School Aid Fund will start subsidizing university payments to MPSERS even without any reforms.

In addition, if the cap already applies to universities, then the reform outlined in this memo might be legislatively easier to accomplish. The cap will not need to be extended to universities since it already applies. Rather, the legislature need only require that universities begin prefunding health care and then their combined UAAL payment will already be subject to the cap.

In this memo, we assume that the cap does *not* already apply to universities for two reasons. Firstly, it is clear from the language used by legislators and the ORS to describe these reforms that they never intended for the 20.96% cap to apply to university UAAL payments. In addition, the language in the law is a bit ambiguous:

> Beginning with the 2012-2013 state fiscal year and for each subsequent fiscal year, the unfunded actuarial accrued liability contribution rate applied to payroll shall not exceed 20.96%. Any additional unfunded actuarial accrued liability contributions as determined under this section for each fiscal year are to be paid by appropriation from the school aid fund...Except as otherwise provided in section 41a [the section that discusses separate rates for universities], the unfunded actuarial accrued liability contribution rate shall be based upon and applied to the combined payrolls of the employees who are members and qualified participants.

Though there is a reference to section 41a, which describes separate contribution rates for universities, the law does not specifically state that the 20.96% cap on payroll should not apply to universities. To be conservative, we have decided in the analysis in this memo not to assume that the State would begin to cover university UAAL payments in the event that their pension UAAL payments exceed 20.96%.

What happens if initial prefunding payments for the health care UAAL fall below the pay-as-you-go amount?

According to our estimates, the total actuarially required contribution to prefund health care in each of the first few years of prefunding actually falls slightly below the amount that the schools would pay under pay-as-you-go rules. That means that the actuarially required contribution is not enough to cover the current payments for insurance premiums for retirees. There are two reasons for this. Firstly, health care contributions from universities are already near their peak under the pay-as-you-go plan. Secondly, the actuarial assumption of 3.5% annual increases in payrolls result in a payment plan where annual payments increase by 3.5% each year. Because of this, payments in the first few years of prefunding are fairly low, while payments in the last few years are considerably higher.

If initial prefunding payments fall below the initial pay-as-you-go amount, the extra funds needed to close the gap between payments into and payments out of the MPSERS fund will need to come from somewhere. There are three potential sources: the universities, the State, and the MPSERS retiree health care fund. The most straightforward solution would be for payments into MPSERS to continue as planned and for MPSERS to use its considerable liquidity to cover any payments out to university

11. You could argue that schools are making payments on their health care UAAL, even though their payments have not been explicitly described that way. The health care UAAL payment would just be the difference between the cash payment made under the pay-as-you-go method and the normal cost for health care that the universities *would* be paying for active employees if they were prefunding retiree health care. We have not calculated this amount for this memorandum.

retirees that have not yet been covered by prefunding. Our analysis suggests this amount will not exceed $3 million in any given year, and that this will no longer be an issue after ten years of prefunding. Under the other options, MPSERS would send either universities or the State the bill to cover the difference between their annually required contribution for prefunding and the amount paid out to retirees in any given year.

Whither the 3% contribution from employees?

In 2010, the state legislature passed a law requiring that all active employees of the MPSERS program contribute 3% of their pay toward retiree health care funding. All MPSERS employees (K-12, community colleges, and university employees) who chose to retain the retiree health care premium subsidy must pay it.[12]

The funds generated from this assessment have been the subject of litigation. The Court of Appeals ruled in August 2012 that the required contribution is unconstitutional. As a result, the funds were held in escrow awaiting the State's appeal to the Michigan Supreme Court. Public Act 300 of 2012 made changes to the 3% employee contribution to address the perceived constitutional problems with the original assessment. Since the enactment of Public Act 300, the employee contributions are no longer being escrowed and have been used to prefund retiree health care for K-12 school districts, community colleges, and other employers.

PA 300 states that "[t]he member contributions under this section shall be deducted by the employer and remitted as employer contributions in a manner that the retirement system shall determine." The 3% employee contribution for retiree health is being paid by university employees; however, it appears that the funds are not being used to help offset the retiree health care costs borne by the universities. The universities continue to pay 80% (or 90%) of the insurance premiums for the retirees, regardless of the amount of prefunding covered by their employees.

The funds from 3% employee contributions are apparently being used by MPSERS to help prefund retiree health for all other reporting units. If this is the case, then the funds are effectively being used by the State to offset a portion of its obligation for funding UAAL payments as a result of the employer UAAL cap implemented under PA 300.

Should the State decide to begin prefunding retiree health care benefits for university employees, we suspect that these funds would be used to offset the State's share of the UAAL payment under the reform scenario presented here. In that case, the contributions would continue to have no impact on required contributions from universities.

12. Public Act 75 of 2010 established the 3% employee contribution, and employees have been responsible for paying this since July 2010.

Exhibit 1. Projected Cost for Pensions and Retiree Health Care for Each University and the State SAF at Baseline (without Reforms), FY 2014 - FY 2036

Northern Michigan	**2014**	**2015**	**2016**	**2017**	**2018**	**2019**	**2020**	**2021**	**2022**	**2023**	**2024**	**2025**
Pension Normal	$ 244,710	$ 213,961	$ 189,289	$ 166,533	$ 146,970	$ 130,485	$ 114,390	$ 101,276	$ 89,209	$ 77,116	$ 64,154	$ 54,094
Pension UAAL	$ 2,893,536	$ 2,976,909	$ 3,063,267	$ 3,152,778	$ 3,245,614	$ 3,341,958	$ 3,441,999	$ 3,545,939	$ 3,653,986	$ 3,766,360	$ 3,883,291	$ 4,005,019
Retiree Health Care	$ 2,554,069	$ 2,738,104	$ 2,871,203	$ 3,000,576	$ 3,070,470	$ 3,124,882	$ 3,089,929	$ 3,156,222	$ 3,166,802	$ 3,173,980	$ 3,166,063	$ 3,141,093
TOTAL	$ 5,692,315	$ 5,928,973	$ 6,123,758	$ 6,319,887	$ 6,463,054	$ 6,597,325	$ 6,646,319	$ 6,803,437	$ 6,909,996	$ 7,017,455	$ 7,113,507	$ 7,200,206
Share of Total Payroll	*32.66%*	*33.99%*	*35.06%*	*36.09%*	*36.79%*	*37.39%*	*37.47%*	*38.13%*	*38.45%*	*38.74%*	*38.93%*	*39.02%*

Western Michigan	**2014**	**2015**	**2016**	**2017**	**2018**	**2019**	**2020**	**2021**	**2022**	**2023**	**2024**	**2025**
Pension Normal	$ 535,519	$ 466,442	$ 406,837	$ 353,269	$ 303,565	$ 259,251	$ 221,519	$ 186,369	$ 155,722	$ 128,059	$ 104,197	$ 84,593
Pension UAAL	$ 6,806,655	$ 6,989,359	$ 7,179,005	$ 7,375,994	$ 7,580,750	$ 7,793,716	$ 8,015,356	$ 8,246,161	$ 8,486,641	$ 8,737,337	$ 8,998,815	$ 9,271,669
Retiree Health Care	$ 4,702,681	$ 5,084,276	$ 5,368,601	$ 5,632,800	$ 5,895,097	$ 6,011,740	$ 6,116,985	$ 6,180,730	$ 6,195,420	$ 6,133,905	$ 6,092,965	$ 6,031,223
TOTAL	$ 12,044,855	$ 12,540,077	$ 12,954,443	$ 13,362,063	$ 13,779,412	$ 14,064,706	$ 14,353,860	$ 14,613,260	$ 14,837,784	$ 14,999,301	$ 15,195,976	$ 15,387,485
Share of Total Payroll	*29.37%*	*30.62%*	*31.65%*	*32.62%*	*33.58%*	*34.18%*	*34.75%*	*35.22%*	*35.55%*	*35.70%*	*35.88%*	*36.02%*

Eastern Michigan	**2014**	**2015**	**2016**	**2017**	**2018**	**2019**	**2020**	**2021**	**2022**	**2023**	**2024**	**2025**
Pension Normal	$ 325,740	$ 272,472	$ 232,143	$ 197,354	$ 166,911	$ 142,825	$ 120,832	$ 102,045	$ 87,609	$ 75,597	$ 63,716	$ 54,679
Pension UAAL	$ 4,118,564	$ 4,217,004	$ 4,319,625	$ 4,426,678	$ 4,538,428	$ 4,655,153	$ 4,777,145	$ 4,904,712	$ 5,038,178	$ 5,177,885	$ 5,324,194	$ 5,477,484
Retiree Health Care	$ 3,210,523	$ 3,480,622	$ 3,674,893	$ 3,785,438	$ 3,903,905	$ 4,001,330	$ 4,047,418	$ 4,114,523	$ 4,064,240	$ 3,992,023	$ 3,906,205	$ 3,861,930
TOTAL	$ 7,654,827	$ 7,970,098	$ 8,226,660	$ 8,409,470	$ 8,609,244	$ 8,799,308	$ 8,945,395	$ 9,121,281	$ 9,190,028	$ 9,245,505	$ 9,294,115	$ 9,394,093
Share of Total Payroll	*30.85%*	*32.26%*	*33.40%*	*34.21%*	*35.04%*	*35.80%*	*36.34%*	*36.96%*	*37.09%*	*37.13%*	*37.09%*	*37.22%*

Ferris State	**2014**	**2015**	**2016**	**2017**	**2018**	**2019**	**2020**	**2021**	**2022**	**2023**	**2024**	**2025**
Pension Normal	$ 391,779	$ 329,700	$ 273,441	$ 227,282	$ 187,269	$ 153,752	$ 126,611	$ 105,632	$ 88,186	$ 73,661	$ 61,602	$ 51,855
Pension UAAL	$ 5,265,798	$ 5,461,754	$ 5,663,857	$ 5,872,340	$ 6,087,444	$ 6,309,421	$ 6,538,530	$ 6,775,043	$ 7,019,238	$ 7,271,405	$ 7,531,842	$ 7,800,857
Retiree Health Care	$ 4,173,748	$ 4,506,695	$ 4,792,962	$ 5,029,245	$ 5,149,121	$ 5,209,338	$ 5,282,106	$ 5,265,715	$ 5,225,690	$ 5,130,274	$ 4,935,787	$ 4,730,733
TOTAL	$ 9,831,325	$ 10,298,149	$ 10,730,260	$ 11,128,867	$ 11,423,834	$ 11,672,511	$ 11,947,247	$ 12,146,390	$ 12,333,114	$ 12,475,340	$ 12,529,232	$ 12,583,445
Share of Total Payroll	*30.99%*	*32.18%*	*33.22%*	*34.12%*	*34.67%*	*35.04%*	*35.46%*	*35.63%*	*35.73%*	*35.67%*	*35.35%*	*35.01%*

Central Michigan	**2014**	**2015**	**2016**	**2017**	**2018**	**2019**	**2020**	**2021**	**2022**	**2023**	**2024**	**2025**
Pension Normal	$ 504,367	$ 448,794	$ 397,040	$ 348,961	$ 307,321	$ 268,025	$ 235,862	$ 206,990	$ 180,852	$ 158,320	$ 137,436	$ 119,583
Pension UAAL	$ 7,670,024	$ 8,035,033	$ 8,411,699	$ 8,800,182	$ 9,200,631	$ 9,613,191	$ 10,037,999	$ 10,475,181	$ 10,924,852	$ 11,387,118	$ 11,862,071	$ 12,349,787
Retiree Health Care	$ 5,356,884	$ 5,748,622	$ 6,069,702	$ 6,363,864	$ 6,567,720	$ 6,750,401	$ 6,909,453	$ 6,953,973	$ 6,927,898	$ 6,882,422	$ 6,857,258	$ 6,726,480
TOTAL	$ 13,531,275	$ 14,232,449	$ 14,878,441	$ 15,513,007	$ 16,075,671	$ 16,631,617	$ 17,183,314	$ 17,636,145	$ 18,033,602	$ 18,427,860	$ 18,856,765	$ 19,195,849
Share of Total Payroll	*29.29%*	*30.23%*	*31.02%*	*31.74%*	*32.28%*	*32.77%*	*33.22%*	*33.46%*	*33.56%*	*33.65%*	*33.78%*	*33.73%*

Michigan Tech	**2014**	**2015**	**2016**	**2017**	**2018**	**2019**	**2020**	**2021**	**2022**	**2023**	**2024**	**2025**
Pension Normal	$ 270,441	$ 241,617	$ 215,473	$ 190,360	$ 167,362	$ 144,736	$ 125,529	$ 110,385	$ 97,194	$ 84,746	$ 73,971	$ 65,334
Pension UAAL	$ 3,401,526	$ 3,557,280	$ 3,717,946	$ 3,883,609	$ 4,054,354	$ 4,230,263	$ 4,411,419	$ 4,597,901	$ 4,789,787	$ 4,987,151	$ 5,190,066	$ 5,398,599
Retiree Health Care	$ 2,846,972	$ 3,080,333	$ 3,262,056	$ 3,441,914	$ 3,530,576	$ 3,666,044	$ 3,796,833	$ 3,802,906	$ 3,816,112	$ 3,782,002	$ 3,709,049	$ 3,622,151
TOTAL	$ 6,518,939	$ 6,879,230	$ 7,195,475	$ 7,515,883	$ 7,752,291	$ 8,041,043	$ 8,333,780	$ 8,511,192	$ 8,703,092	$ 8,853,900	$ 8,973,086	$ 9,086,084
Share of Total Payroll	*31.81%*	*33.01%*	*33.94%*	*34.85%*	*35.32%*	*36.00%*	*36.66%*	*36.78%*	*36.95%*	*36.92%*	*36.74%*	*36.53%*

Lake Superior State	**2014**	**2015**	**2016**	**2017**	**2018**	**2019**	**2020**	**2021**	**2022**	**2023**	**2024**	**2025**
Pension Normal	$ 72,995	$ 64,637	$ 57,344	$ 50,473	$ 44,094	$ 38,129	$ 33,065	$ 28,430	$ 24,443	$ 20,093	$ 16,705	$ 14,276
Pension UAAL	$ 874,974	$ 879,826	$ 885,867	$ 893,130	$ 901,655	$ 911,484	$ 922,668	$ 935,259	$ 949,319	$ 964,915	$ 982,121	$ 1,001,017
Retiree Health Care	$ 952,225	$ 1,025,785	$ 1,092,984	$ 1,138,527	$ 1,203,265	$ 1,222,315	$ 1,203,712	$ 1,221,124	$ 1,199,024	$ 1,212,576	$ 1,227,152	$ 1,197,474
TOTAL	$ 1,900,193	$ 1,970,248	$ 2,036,194	$ 2,082,130	$ 2,149,013	$ 2,171,928	$ 2,159,445	$ 2,184,813	$ 2,172,787	$ 2,197,585	$ 2,225,978	$ 2,212,768
Share of Total Payroll	*36.05%*	*38.22%*	*40.31%*	*41.98%*	*44.03%*	*45.13%*	*45.42%*	*46.42%*	*46.54%*	*47.36%*	*48.16%*	*47.97%*

TOTAL - All Universities	**2014**	**2015**	**2016**	**2017**	**2018**	**2019**	**2020**	**2021**	**2022**	**2023**	**2024**	**2025**
Pension Normal	$ 2,345,551	$ 2,037,622	$ 1,771,565	$ 1,534,233	$ 1,323,492	$ 1,137,202	$ 977,807	$ 841,128	$ 723,215	$ 617,591	$ 521,781	$ 444,414
Pension UAAL	$ 31,031,077	$ 32,117,165	$ 33,241,266	$ 34,404,710	$ 35,608,875	$ 36,855,185	$ 38,145,117	$ 39,480,196	$ 40,862,003	$ 42,292,173	$ 43,772,399	$ 45,304,433
Retiree Health Care	$ 23,797,102	$ 25,664,438	$ 27,132,400	$ 28,392,364	$ 29,320,152	$ 29,986,049	$ 30,446,435	$ 30,695,193	$ 30,595,184	$ 30,307,182	$ 29,894,480	$ 29,311,083
TOTAL	$ 57,173,730	$ 59,819,225	$ 62,145,231	$ 64,331,307	$ 66,252,519	$ 67,978,436	$ 69,569,360	$ 71,016,517	$ 72,180,403	$ 73,216,946	$ 74,188,660	$ 75,059,930
Share of Total Payroll	*30.58%*	*31.79%*	*32.79%*	*33.67%*	*34.37%*	*34.94%*	*35.40%*	*35.75%*	*35.92%*	*36.00%*	*36.02%*	*35.96%*

Sources: Office of Retirement Services, MPSERS universities, AEG estimates

Analysis: Anderson Economic Group, LLC

Note: "Total Payroll" includes all active employees that are members of MPSERS, as well as all employees who have been hired since 1996 that would qualify to be members of MPSERS if the system had not closed to universities.

Exhibit 1. Projected Cost for Pensions and Retiree Health Care for Each University and the State SAF at Baseline (without Reforms), FY 2014 - FY 2036 (continued)

Northern Michigan	**2026**	**2027**	**2028**	**2029**	**2030**	**2031**	**2032**	**2033**	**2034**	**2035**	**2036**
Pension Normal	$ 44,576	$ 37,724	$ 31,768	$ 26,563	$ 20,769	$ 16,514	$ 13,043	$ 10,119	$ 7,984	$ 6,401	$ 4,713
Pension UAAL	$ 4,131,799	$ 4,263,894	$ 4,401,584	$ 4,545,159	$ 4,694,924	$ 4,851,200	$ 5,014,323	$ 5,184,643	$ 5,362,529	$ 5,548,366	$ 5,742,559
Retiree Health Care	$ 3,118,981	$ 3,083,527	$ 3,040,089	$ 2,946,951	$ 2,921,610	$ 2,848,522	$ 2,736,037	$ 2,583,969	$ 2,496,960	$ 2,371,337	$ 2,310,812
TOTAL	$ 7,295,355	$ 7,385,145	$ 7,473,441	$ 7,518,673	$ 7,637,303	$ 7,716,236	$ 7,763,403	$ 7,778,731	$ 7,867,472	$ 7,926,103	$ 8,058,083
Share of Total Payroll	*39.11%*	*39.14%*	*39.11%*	*38.82%*	*38.87%*	*38.68%*	*38.29%*	*37.72%*	*37.47%*	*37.04%*	*36.92%*

Western Michigan	**2026**	**2027**	**2028**	**2029**	**2030**	**2031**	**2032**	**2033**	**2034**	**2035**	**2036**
Pension Normal	$ 67,194	$ 52,106	$ 38,809	$ 29,184	$ 21,761	$ 16,239	$ 12,080	$ 8,972	$ 6,486	$ 4,634	$ 3,328
Pension UAAL	$ 9,556,526	$ 9,854,043	$ 10,164,912	$ 10,489,862	$ 10,829,658	$ 11,185,105	$ 11,557,051	$ 11,946,389	$ 12,354,055	$ 12,781,038	$ 13,228,374
Retiree Health Care	$ 5,929,634	$ 5,785,141	$ 5,670,938	$ 5,509,314	$ 5,302,712	$ 5,115,093	$ 4,899,851	$ 4,695,712	$ 4,512,417	$ 4,298,070	$ 4,093,855
TOTAL	$ 15,553,354	$ 15,691,290	$ 15,874,659	$ 16,028,359	$ 16,154,130	$ 16,316,437	$ 16,468,982	$ 16,651,072	$ 16,872,958	$ 17,083,743	$ 17,325,558
Share of Total Payroll	*36.05%*	*35.98%*	*35.97%*	*35.86%*	*35.65%*	*35.47%*	*35.24%*	*35.04%*	*34.88%*	*34.66%*	*34.46%*

Eastern Michigan	**2026**	**2027**	**2028**	**2029**	**2030**	**2031**	**2032**	**2033**	**2034**	**2035**	**2036**
Pension Normal	$ 47,381	$ 40,768	$ 34,269	$ 29,196	$ 25,529	$ 22,594	$ 18,374	$ 14,294	$ 10,611	$ 7,929	$ 5,993
Pension UAAL	$ 5,638,156	$ 5,806,636	$ 5,983,371	$ 6,168,835	$ 6,363,528	$ 6,567,980	$ 6,782,751	$ 7,008,434	$ 7,245,655	$ 7,495,079	$ 7,757,406
Retiree Health Care	$ 3,721,676	$ 3,595,857	$ 3,532,784	$ 3,372,622	$ 3,244,498	$ 3,146,235	$ 3,059,267	$ 2,931,136	$ 2,852,300	$ 2,754,541	$ 2,635,175
TOTAL	$ 9,407,213	$ 9,443,261	$ 9,550,424	$ 9,570,652	$ 9,633,554	$ 9,736,809	$ 9,860,392	$ 9,953,864	$ 10,108,567	$ 10,257,548	$ 10,398,575
Share of Total Payroll	*36.96%*	*36.75%*	*36.77%*	*36.41%*	*36.18%*	*36.05%*	*35.96%*	*35.71%*	*35.63%*	*35.49%*	*35.27%*

Ferris State	**2026**	**2027**	**2028**	**2029**	**2030**	**2031**	**2032**	**2033**	**2034**	**2035**	**2036**
Pension Normal	$ 42,834	$ 35,276	$ 29,124	$ 22,933	$ 18,000	$ 14,140	$ 10,518	$ 7,903	$ 5,990	$ 4,490	$ 3,304
Pension UAAL	$ 8,078,768	$ 8,365,902	$ 8,662,595	$ 8,969,192	$ 9,286,048	$ 9,613,525	$ 9,951,995	$ 10,301,837	$ 10,663,437	$ 11,037,188	$ 11,423,490
Retiree Health Care	$ 4,599,490	$ 4,440,103	$ 4,281,231	$ 4,140,128	$ 4,046,626	$ 3,927,370	$ 3,788,546	$ 3,642,540	$ 3,507,490	$ 3,338,555	$ 3,187,486
TOTAL	$ 12,721,093	$ 12,841,281	$ 12,972,950	$ 13,132,254	$ 13,350,673	$ 13,555,035	$ 13,751,060	$ 13,952,281	$ 14,176,916	$ 14,380,234	$ 14,614,280
Share of Total Payroll	*34.88%*	*34.68%*	*34.50%*	*34.36%*	*34.36%*	*34.29%*	*34.17%*	*34.05%*	*33.95%*	*33.78%*	*33.66%*

Central Michigan	**2026**	**2027**	**2028**	**2029**	**2030**	**2031**	**2032**	**2033**	**2034**	**2035**	**2036**
Pension Normal	$ 103,365	$ 87,052	$ 71,434	$ 58,741	$ 47,472	$ 37,498	$ 28,797	$ 22,473	$ 17,624	$ 13,527	$ 10,493
Pension UAAL	$ 12,850,330	$ 13,363,744	$ 13,890,056	$ 14,429,273	$ 14,981,379	$ 15,546,336	$ 16,124,079	$ 16,714,515	$ 17,317,522	$ 17,932,946	$ 18,560,599
Retiree Health Care	$ 6,564,335	$ 6,464,631	$ 6,306,003	$ 6,232,039	$ 6,098,701	$ 5,920,697	$ 5,801,066	$ 5,604,946	$ 5,440,755	$ 5,245,725	$ 4,965,098
TOTAL	$ 19,518,030	$ 19,915,427	$ 20,267,493	$ 20,720,053	$ 21,127,552	$ 21,504,531	$ 21,953,942	$ 22,341,933	$ 22,775,901	$ 23,192,198	$ 23,536,190
Share of Total Payroll	*33.65%*	*33.67%*	*33.61%*	*33.70%*	*33.70%*	*33.64%*	*33.68%*	*33.60%*	*33.59%*	*33.53%*	*33.36%*

Michigan Tech	**2026**	**2027**	**2028**	**2029**	**2030**	**2031**	**2032**	**2033**	**2034**	**2035**	**2036**
Pension Normal	$ 57,650	$ 50,137	$ 41,581	$ 34,348	$ 27,921	$ 22,187	$ 17,347	$ 13,531	$ 10,191	$ 7,649	$ 5,780
Pension UAAL	$ 5,612,815	$ 5,832,771	$ 6,058,522	$ 6,290,114	$ 6,527,590	$ 6,770,981	$ 7,020,313	$ 7,275,600	$ 7,536,849	$ 7,804,053	$ 8,077,195
Retiree Health Care	$ 3,514,972	$ 3,424,354	$ 3,333,489	$ 3,290,303	$ 3,276,506	$ 3,229,225	$ 3,155,557	$ 3,085,242	$ 3,038,478	$ 2,963,639	$ 2,848,994
TOTAL	$ 9,185,437	$ 9,307,261	$ 9,433,592	$ 9,614,766	$ 9,832,017	$ 10,022,393	$ 10,193,217	$ 10,374,372	$ 10,585,518	$ 10,775,342	$ 10,931,969
Share of Total Payroll	*36.25%*	*36.06%*	*35.87%*	*35.87%*	*35.99%*	*36.00%*	*35.91%*	*35.85%*	*35.87%*	*35.80%*	*35.61%*

Lake Superior State	**2026**	**2027**	**2028**	**2029**	**2030**	**2031**	**2032**	**2033**	**2034**	**2035**	**2036**
Pension Normal	$ 11,993	$ 10,333	$ 7,952	$ 5,870	$ 4,337	$ 3,255	$ 2,463	$ 1,893	$ 1,435	$ 1,045	$ 749
Pension UAAL	$ 1,021,695	$ 1,044,251	$ 1,068,795	$ 1,095,444	$ 1,124,328	$ 1,155,588	$ 1,189,379	$ 1,225,870	$ 1,265,245	$ 1,307,708	$ 1,353,478
Retiree Health Care	$ 1,183,492	$ 1,124,407	$ 1,110,816	$ 1,102,996	$ 1,071,335	$ 1,043,423	$ 980,467	$ 949,329	$ 926,523	$ 890,393	$ 865,330
TOTAL	$ 2,217,180	$ 2,178,992	$ 2,187,563	$ 2,204,310	$ 2,200,000	$ 2,202,265	$ 2,172,309	$ 2,177,092	$ 2,193,203	$ 2,199,146	$ 2,219,557
Share of Total Payroll	*48.07%*	*47.15%*	*47.15%*	*47.23%*	*46.76%*	*46.34%*	*45.17%*	*44.65%*	*44.27%*	*43.61%*	*43.15%*

TOTAL - All Universities	**2026**	**2027**	**2028**	**2029**	**2030**	**2031**	**2032**	**2033**	**2034**	**2035**	**2036**
Pension Normal	$ 374,994	$ 313,396	$ 254,937	$ 206,835	$ 165,788	$ 132,426	$ 102,622	$ 79,185	$ 60,320	$ 45,675	$ 34,360
Pension UAAL	$ 46,890,088	$ 48,531,241	$ 50,229,835	$ 51,987,879	$ 53,807,455	$ 55,690,716	$ 57,639,891	$ 59,657,287	$ 61,745,292	$ 63,906,377	$ 66,143,100
Retiree Health Care	$ 28,632,580	$ 27,918,020	$ 27,275,350	$ 26,594,353	$ 25,961,987	$ 25,230,565	$ 24,420,792	$ 23,492,873	$ 22,774,922	$ 21,862,261	$ 20,906,751
TOTAL	$ 75,897,662	$ 76,762,657	$ 77,760,122	$ 78,789,066	$ 79,935,230	$ 81,053,706	$ 82,163,305	$ 83,229,346	$ 84,580,534	$ 85,814,313	$ 87,084,211
Share of Total Payroll	*35.85%*	*35.74%*	*35.66%*	*35.57%*	*35.50%*	*35.39%*	*35.26%*	*35.07%*	*34.98%*	*34.82%*	*34.64%*

Sources: Office of Retirement Services, MPSERS universities, AEG estimates
Analysis: Anderson Economic Group, LLC
Note: "Total Payroll" includes all active employees that are members of MPSERS, as well as all employees who have been hired since 1996 that would qualify to be members of MPSERS if the system had not closed to universities.

Exhibit 2. Projected Cost for Pensions and Retiree Health Care for Each University and the State SAF Under Reform Scenario, FY 2014 - FY 2036

Northern Michigan	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Pension Normal	$ 244,710	$ 213,961	$ 189,289	$ 166,533	$ 146,970	$ 130,485	$ 114,390	$ 101,276	$ 89,209	$ 77,116	$ 64,154	$ 54,094
Pension UAAL	$ 2,893,536	$ 2,976,909	$ 3,063,267	$ 3,152,778	$ 3,245,614	$ 3,341,958	$ 3,441,999	$ 3,545,939	$ 3,653,986	$ 3,766,360	$ 3,883,291	$ 4,005,019
Retiree Health Care "Normal"	$ 75,860	$ 66,328	$ 58,679	$ 51,625	$ 45,561	$ 40,450	$ 35,461	$ 31,396	$ 27,655	$ 23,906	$ 19,888	$ 16,769
Retiree Health Care "UAAL"	$ 2,111,332	$ 2,172,167	$ 2,235,180	$ 2,300,493	$ 2,368,233	$ 2,438,533	$ 2,511,530	$ 2,587,372	$ 2,666,211	$ 2,748,207	$ 2,833,528	$ 2,922,350
TOTAL	$ 5,325,439	$ 5,429,364	$ 5,546,415	$ 5,671,430	$ 5,806,379	$ 5,951,425	$ 6,103,381	$ 6,265,983	$ 6,437,061	$ 6,615,588	$ 6,800,860	$ 6,998,232
SAF Subsidy	$ 1,351,343	$ 1,493,432	$ 1,637,304	$ 1,783,235	$ 1,931,501	$ 2,082,388	$ 2,236,184	$ 2,393,185	$ 2,553,691	$ 2,718,012	$ 2,886,464	$ 3,059,372
University Obligation	$ 3,974,095	$ 3,935,932	$ 3,909,111	$ 3,888,195	$ 3,874,877	$ 3,869,037	$ 3,867,197	$ 3,872,798	$ 3,883,370	$ 3,897,577	$ 3,914,396	$ 3,938,860

Western Michigan	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Pension Normal	$ 535,519	$ 466,442	$ 406,837	$ 353,269	$ 303,565	$ 259,251	$ 221,519	$ 186,369	$ 155,722	$ 128,059	$ 104,197	$ 84,593
Pension UAAL	$ 6,806,655	$ 6,989,359	$ 7,179,005	$ 7,375,994	$ 7,580,750	$ 7,793,716	$ 8,015,356	$ 8,246,161	$ 8,486,641	$ 8,737,337	$ 8,998,815	$ 9,271,669
Retiree Health Care "Normal"	$ 166,011	$ 144,597	$ 126,119	$ 109,513	$ 94,105	$ 80,368	$ 68,671	$ 57,775	$ 48,274	$ 39,698	$ 32,301	$ 26,224
Retiree Health Care "UAAL"	$ 4,966,625	$ 5,099,939	$ 5,238,318	$ 5,382,056	$ 5,531,460	$ 5,686,855	$ 5,848,580	$ 6,016,992	$ 6,192,464	$ 6,375,390	$ 6,566,183	$ 6,765,277
TOTAL	$ 12,474,809	$ 12,700,337	$ 12,950,279	$ 13,220,832	$ 13,509,880	$ 13,820,189	$ 14,154,126	$ 14,507,296	$ 14,883,102	$ 15,280,484	$ 15,701,496	$ 16,147,763
SAF Subsidy	$ 3,178,853	$ 3,506,367	$ 3,837,150	$ 4,171,917	$ 4,511,389	$ 4,856,298	$ 5,207,384	$ 5,565,404	$ 5,931,128	$ 6,305,342	$ 6,688,852	$ 7,082,484
University Obligation	$ 9,295,956	$ 9,193,970	$ 9,113,128	$ 9,048,915	$ 8,998,491	$ 8,963,892	$ 8,946,742	$ 8,941,892	$ 8,951,974	$ 8,975,142	$ 9,012,644	$ 9,065,279

Eastern Michigan	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Pension Normal	$ 325,740	$ 272,472	$ 232,143	$ 197,354	$ 166,911	$ 142,825	$ 120,832	$ 102,045	$ 87,609	$ 75,597	$ 63,716	$ 54,679
Pension UAAL	$ 4,118,564	$ 4,217,004	$ 4,319,625	$ 4,426,678	$ 4,538,428	$ 4,655,153	$ 4,777,145	$ 4,904,712	$ 5,038,178	$ 5,177,885	$ 5,324,194	$ 5,477,484
Retiree Health Care "Normal"	$ 100,979	$ 84,466	$ 71,964	$ 61,180	$ 51,742	$ 44,276	$ 37,458	$ 31,634	$ 27,159	$ 23,435	$ 19,752	$ 16,951
Retiree Health Care "UAAL"	$ 3,005,201	$ 3,077,029	$ 3,151,909	$ 3,230,023	$ 3,311,563	$ 3,396,734	$ 3,485,749	$ 3,578,831	$ 3,676,217	$ 3,778,158	$ 3,884,915	$ 3,996,766
TOTAL	$ 7,550,485	$ 7,650,972	$ 7,775,640	$ 7,915,234	$ 8,068,645	$ 8,238,988	$ 8,421,183	$ 8,617,222	$ 8,829,164	$ 9,055,075	$ 9,292,576	$ 9,545,879
SAF Subsidy	$ 1,923,457	$ 2,115,553	$ 2,308,823	$ 2,503,762	$ 2,700,869	$ 2,900,646	$ 3,103,596	$ 3,310,232	$ 3,521,073	$ 3,736,646	$ 3,957,492	$ 4,184,164
University Obligation	$ 5,627,027	$ 5,535,419	$ 5,466,818	$ 5,411,472	$ 5,367,775	$ 5,338,342	$ 5,317,587	$ 5,306,990	$ 5,308,091	$ 5,318,429	$ 5,335,083	$ 5,361,715

Ferris State	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Pension Normal	$ 391,779	$ 329,700	$ 273,441	$ 227,282	$ 187,269	$ 153,752	$ 126,611	$ 105,632	$ 88,186	$ 73,661	$ 61,602	$ 51,855
Pension UAAL	$ 5,265,798	$ 5,461,754	$ 5,663,857	$ 5,872,340	$ 6,087,444	$ 6,309,421	$ 6,538,530	$ 6,775,043	$ 7,019,238	$ 7,271,405	$ 7,531,842	$ 7,800,857
Retiree Health Care "Normal"	$ 121,452	$ 102,207	$ 84,767	$ 70,457	$ 58,053	$ 47,663	$ 39,249	$ 32,746	$ 27,338	$ 22,835	$ 19,097	$ 16,075
Retiree Health Care "UAAL"	$ 3,842,305	$ 3,985,289	$ 4,132,758	$ 4,284,882	$ 4,441,837	$ 4,603,807	$ 4,770,982	$ 4,943,559	$ 5,121,741	$ 5,305,740	$ 5,495,774	$ 5,692,066
TOTAL	$ 9,621,334	$ 9,878,949	$ 10,154,822	$ 10,454,961	$ 10,774,604	$ 11,114,643	$ 11,475,373	$ 11,856,980	$ 12,256,503	$ 12,673,641	$ 13,108,315	$ 13,560,854
SAF Subsidy	$ 2,459,240	$ 2,740,010	$ 3,027,310	$ 3,321,439	$ 3,622,706	$ 3,931,427	$ 4,247,926	$ 4,572,535	$ 4,905,592	$ 5,247,445	$ 5,598,445	$ 5,958,954
University Obligation	$ 7,162,094	$ 7,138,939	$ 7,127,512	$ 7,133,522	$ 7,151,897	$ 7,183,216	$ 7,227,447	$ 7,284,445	$ 7,350,911	$ 7,426,196	$ 7,509,869	$ 7,601,900

Central Michigan	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Pension Normal	$ 504,367	$ 448,794	$ 397,040	$ 348,961	$ 307,321	$ 268,025	$ 235,862	$ 206,990	$ 180,852	$ 158,320	$ 137,436	$ 119,583
Pension UAAL	$ 7,670,024	$ 8,035,033	$ 8,411,699	$ 8,800,182	$ 9,200,631	$ 9,613,191	$ 10,037,999	$ 10,475,181	$ 10,924,852	$ 11,387,118	$ 11,862,071	$ 12,349,787
Retiree Health Care "Normal"	$ 156,354	$ 139,126	$ 123,082	$ 108,178	$ 95,269	$ 83,088	$ 73,117	$ 64,167	$ 56,064	$ 49,079	$ 42,605	$ 37,071
Retiree Health Care "UAAL"	$ 5,596,601	$ 5,862,938	$ 6,137,781	$ 6,421,245	$ 6,713,442	$ 7,014,476	$ 7,324,446	$ 7,643,445	$ 7,971,558	$ 8,308,861	$ 8,655,420	$ 9,011,293
TOTAL	$ 13,927,345	$ 14,485,891	$ 15,069,603	$ 15,678,566	$ 16,316,663	$ 16,978,780	$ 17,671,425	$ 18,389,784	$ 19,133,327	$ 19,903,378	$ 20,697,532	$ 21,517,733
SAF Subsidy	$ 3,582,065	$ 4,030,952	$ 4,496,021	$ 4,977,448	$ 5,475,399	$ 5,990,021	$ 6,521,447	$ 7,069,789	$ 7,635,140	$ 8,217,569	$ 8,817,120	$ 9,433,810
University Obligation	$ 10,345,281	$ 10,454,939	$ 10,573,582	$ 10,701,118	$ 10,841,264	$ 10,988,758	$ 11,149,978	$ 11,319,994	$ 11,498,186	$ 11,685,809	$ 11,880,412	$ 12,083,923

Michigan Tech	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Pension Normal	$ 270,441	$ 241,617	$ 215,473	$ 190,360	$ 167,362	$ 144,736	$ 125,529	$ 110,385	$ 97,194	$ 84,746	$ 73,971	$ 65,334
Pension UAAL	$ 3,401,526	$ 3,557,280	$ 3,717,946	$ 3,883,609	$ 4,054,354	$ 4,230,263	$ 4,411,419	$ 4,597,901	$ 4,789,787	$ 4,987,151	$ 5,190,066	$ 5,398,599
Retiree Health Care "Normal"	$ 83,837	$ 74,901	$ 66,797	$ 59,012	$ 51,882	$ 44,868	$ 38,914	$ 34,219	$ 30,130	$ 26,271	$ 22,931	$ 20,253
Retiree Health Care "UAAL"	$ 2,481,998	$ 2,595,647	$ 2,712,881	$ 2,833,760	$ 2,958,348	$ 3,086,704	$ 3,218,888	$ 3,354,959	$ 3,494,973	$ 3,638,984	$ 3,787,046	$ 3,939,206
TOTAL	$ 6,237,802	$ 6,469,445	$ 6,713,096	$ 6,966,741	$ 7,231,946	$ 7,506,571	$ 7,794,750	$ 8,097,465	$ 8,412,083	$ 8,737,153	$ 9,074,013	$ 9,423,393
SAF Subsidy	$ 1,588,585	$ 1,784,588	$ 1,987,228	$ 2,196,598	$ 2,412,791	$ 2,635,895	$ 2,865,993	$ 3,103,163	$ 3,347,477	$ 3,599,002	$ 3,857,795	$ 4,123,906
University Obligation	$ 4,649,217	$ 4,684,857	$ 4,725,869	$ 4,770,143	$ 4,819,154	$ 4,870,676	$ 4,928,757	$ 4,994,302	$ 5,064,606	$ 5,138,151	$ 5,216,218	$ 5,299,487

Lake Superior State	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Pension Normal	$ 72,995	$ 64,637	$ 57,344	$ 50,473	$ 44,094	$ 38,129	$ 33,065	$ 28,430	$ 24,443	$ 20,093	$ 16,705	$ 14,276
Pension UAAL	$ 874,974	$ 879,826	$ 885,867	$ 893,130	$ 901,655	$ 911,484	$ 922,668	$ 935,259	$ 949,319	$ 964,915	$ 982,121	$ 1,001,017
Retiree Health Care "Normal"	$ 22,628	$ 20,037	$ 17,776	$ 15,647	$ 13,669	$ 11,820	$ 10,250	$ 8,813	$ 7,577	$ 6,229	$ 5,179	$ 4,426
Retiree Health Care "UAAL"	$ 638,444	$ 641,984	$ 646,392	$ 651,692	$ 657,912	$ 665,084	$ 673,245	$ 682,432	$ 692,692	$ 704,072	$ 716,626	$ 730,414
TOTAL	$ 1,609,041	$ 1,606,484	$ 1,607,378	$ 1,610,941	$ 1,617,329	$ 1,626,517	$ 1,639,227	$ 1,654,935	$ 1,674,032	$ 1,695,309	$ 1,720,631	$ 1,750,134
SAF Subsidy	$ 408,631	$ 441,384	$ 473,492	$ 505,161	$ 536,585	$ 567,950	$ 599,435	$ 631,214	$ 663,459	$ 696,336	$ 730,014	$ 764,662
University Obligation	$ 1,200,409	$ 1,165,100	$ 1,133,886	$ 1,105,781	$ 1,080,745	$ 1,058,567	$ 1,039,792	$ 1,023,720	$ 1,010,573	$ 998,973	$ 990,617	$ 985,472

TOTAL	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Pension Normal	$ 2,345,551	$ 2,037,622	$ 1,771,565	$ 1,534,233	$ 1,323,492	$ 1,137,202	$ 977,807	$ 841,128	$ 723,215	$ 617,591	$ 521,781	$ 444,414
Pension UAAL	$ 31,031,077	$ 32,117,165	$ 33,241,266	$ 34,404,710	$ 35,608,875	$ 36,855,185	$ 38,145,117	$ 39,480,196	$ 40,862,003	$ 42,292,173	$ 43,772,399	$ 45,304,433
Retiree Health Care "Normal"	$ 727,121	$ 631,663	$ 549,185	$ 475,612	$ 410,282	$ 352,532	$ 303,120	$ 260,750	$ 224,197	$ 191,453	$ 161,752	$ 137,768
Retiree Health Care "UAAL"	$ 22,642,506	$ 23,434,993	$ 24,255,218	$ 25,104,151	$ 25,982,796	$ 26,892,194	$ 27,833,421	$ 28,807,590	$ 29,815,856	$ 30,859,411	$ 31,939,490	$ 33,057,372
TOTAL	$ 56,746,254	$ 58,221,443	$ 59,817,234	$ 61,518,706	$ 63,325,445	$ 65,237,113	$ 67,259,465	$ 69,389,665	$ 71,625,271	$ 73,960,628	$ 76,395,422	$ 78,943,988
SAF Subsidy	$ 14,492,174	$ 16,112,287	$ 17,767,328	$ 19,459,560	$ 21,191,241	$ 22,964,625	$ 24,781,966	$ 26,645,522	$ 28,557,559	$ 30,520,351	$ 32,536,182	$ 34,607,352
University Obligation	$ 42,254,080	$ 42,109,156	$ 42,049,906	$ 42,059,145	$ 42,134,204	$ 42,272,488	$ 42,477,500	$ 42,744,143	$ 43,067,712	$ 43,440,277	$ 43,859,240	$ 44,336,636

Sources: Office of Retirement Services, MPSERS universities, AEG estimates
Analysis: Anderson Economic Group, LLC

Exhibit 2. Projected Cost for Pensions and Retiree Health Care for Each University and the State SAF Under Reform Scenario, FY 2014 - FY 2036 (continued)

Northern Michigan	**2026**	**2027**	**2028**	**2029**	**2030**	**2031**	**2032**	**2033**	**2034**	**2035**	**2036**
Pension Normal	$ 44,576	$ 37,724	$ 31,768	$ 26,563	$ 20,769	$ 16,514	$ 13,043	$ 10,119	$ 7,984	$ 6,401	$ 4,713
Pension UAAL	$ 4,131,799	$ 4,263,894	$ 4,401,584	$ 4,545,159	$ 4,694,924	$ 4,851,200	$ 5,014,323	$ 5,184,643	$ 5,362,529	$ 5,548,366	$ 5,742,559
Retiree Health Care "Normal"	$ 13,818	$ 11,694	$ 9,848	$ 8,235	$ 6,439	$ 5,119	$ 4,043	$ 3,137	$ 2,475	$ 1,984	$ 1,461
Retiree Health Care "UAAL"	$ 3,014,858	$ 3,111,244	$ 3,211,712	$ 3,316,475	$ 3,425,754	$ 3,539,785	$ 3,658,810	$ 3,783,088	$ 3,912,886	$ 4,048,487	$ 4,190,184
TOTAL	$ 7,205,051	$ 7,424,557	$ 7,654,913	$ 7,896,432	$ 8,147,886	$ 8,412,618	$ 8,690,219	$ 8,980,987	$ 9,285,874	$ 9,605,237	$ 9,938,916
SAF Subsidy	$ 3,237,069	$ 3,419,899	$ 3,608,214	$ 3,802,376	$ 4,002,759	$ 4,209,748	$ 4,423,738	$ 4,645,138	$ 4,874,365	$ 5,111,852	$ 5,358,041
University Obligation	$ 3,967,981	$ 4,004,657	$ 4,046,699	$ 4,094,056	$ 4,145,127	$ 4,202,870	$ 4,266,481	$ 4,335,850	$ 4,411,509	$ 4,493,386	$ 4,580,875
Western Michigan	**2026**	**2027**	**2028**	**2029**	**2030**	**2031**	**2032**	**2033**	**2034**	**2035**	**2036**
Pension Normal	$ 67,194	$ 52,106	$ 38,809	$ 29,184	$ 21,761	$ 16,239	$ 12,080	$ 8,972	$ 6,486	$ 4,634	$ 3,328
Pension UAAL	$ 9,556,526	$ 9,854,043	$ 10,164,912	$ 10,489,862	$ 10,829,658	$ 11,185,105	$ 11,557,051	$ 11,946,389	$ 12,354,055	$ 12,781,038	$ 13,228,374
Retiree Health Care "Normal"	$ 20,830	$ 16,153	$ 12,031	$ 9,047	$ 6,746	$ 5,034	$ 3,745	$ 2,781	$ 2,011	$ 1,437	$ 1,032
Retiree Health Care "UAAL"	$ 6,973,129	$ 7,190,218	$ 7,417,051	$ 7,654,158	$ 7,902,097	$ 8,161,457	$ 8,432,856	$ 8,716,944	$ 9,014,407	$ 9,325,964	$ 9,652,373
TOTAL	$ 16,617,679	$ 17,112,520	$ 17,632,803	$ 18,182,250	$ 18,760,261	$ 19,367,834	$ 20,005,732	$ 20,675,087	$ 21,376,959	$ 22,113,073	$ 22,885,107
SAF Subsidy	$ 7,487,087	$ 7,903,534	$ 8,332,722	$ 8,775,579	$ 9,233,059	$ 9,706,150	$ 10,195,868	$ 10,703,268	$ 11,229,436	$ 11,775,497	$ 12,342,612
University Obligation	$ 9,130,591	$ 9,208,986	$ 9,300,080	$ 9,406,671	$ 9,527,202	$ 9,661,685	$ 9,809,863	$ 9,971,819	$ 10,147,523	$ 10,337,576	$ 10,542,495
Eastern Michigan	**2026**	**2027**	**2028**	**2029**	**2030**	**2031**	**2032**	**2033**	**2034**	**2035**	**2036**
Pension Normal	$ 47,381	$ 40,768	$ 34,269	$ 29,196	$ 25,529	$ 22,594	$ 18,374	$ 14,294	$ 10,611	$ 7,929	$ 5,993
Pension UAAL	$ 5,638,156	$ 5,806,636	$ 5,983,371	$ 6,168,835	$ 6,363,528	$ 6,567,980	$ 6,782,751	$ 7,008,434	$ 7,245,655	$ 7,495,079	$ 7,757,406
Retiree Health Care "Normal"	$ 14,688	$ 12,638	$ 10,623	$ 9,051	$ 7,914	$ 7,004	$ 5,696	$ 4,431	$ 3,289	$ 2,458	$ 1,858
Retiree Health Care "UAAL"	$ 4,114,004	$ 4,236,939	$ 4,365,898	$ 4,501,226	$ 4,643,288	$ 4,792,471	$ 4,949,183	$ 5,113,857	$ 5,286,951	$ 5,468,948	$ 5,660,362
TOTAL	$ 9,814,229	$ 10,096,982	$ 10,394,161	$ 10,708,307	$ 11,040,258	$ 11,390,049	$ 11,756,004	$ 12,141,017	$ 12,546,507	$ 12,974,413	$ 13,425,619
SAF Subsidy	$ 4,417,229	$ 4,657,271	$ 4,904,889	$ 5,160,707	$ 5,425,364	$ 5,699,526	$ 5,983,882	$ 6,279,148	$ 6,586,066	$ 6,905,408	$ 7,237,976
University Obligation	$ 5,397,000	$ 5,439,711	$ 5,489,272	$ 5,547,600	$ 5,614,895	$ 5,690,523	$ 5,772,122	$ 5,861,869	$ 5,960,441	$ 6,069,006	$ 6,187,643
Ferris State	**2026**	**2027**	**2028**	**2029**	**2030**	**2031**	**2032**	**2033**	**2034**	**2035**	**2036**
Pension Normal	$ 42,834	$ 35,276	$ 29,124	$ 22,933	$ 18,000	$ 14,140	$ 10,518	$ 7,903	$ 5,990	$ 4,490	$ 3,304
Pension UAAL	$ 8,078,768	$ 8,365,902	$ 8,662,595	$ 8,969,192	$ 9,286,048	$ 9,613,525	$ 9,951,995	$ 10,301,837	$ 10,663,437	$ 11,037,188	$ 11,423,490
Retiree Health Care "Normal"	$ 13,279	$ 10,936	$ 9,028	$ 7,109	$ 5,580	$ 4,383	$ 3,261	$ 2,450	$ 1,857	$ 1,392	$ 1,024
Retiree Health Care "UAAL"	$ 5,894,850	$ 6,104,364	$ 6,320,852	$ 6,544,568	$ 6,775,768	$ 7,014,719	$ 7,261,692	$ 7,516,961	$ 7,780,810	$ 8,053,526	$ 8,335,400
TOTAL	$ 14,029,731	$ 14,516,478	$ 15,021,599	$ 15,543,802	$ 16,085,396	$ 16,646,768	$ 17,227,466	$ 17,829,152	$ 18,452,094	$ 19,096,597	$ 19,763,218
SAF Subsidy	$ 6,329,334	$ 6,709,955	$ 7,101,192	$ 7,503,421	$ 7,917,021	$ 8,342,373	$ 8,779,855	$ 9,229,845	$ 9,692,719	$ 10,168,844	$ 10,658,581
University Obligation	$ 7,700,398	$ 7,806,522	$ 7,920,407	$ 8,040,381	$ 8,168,375	$ 8,304,395	$ 8,447,611	$ 8,599,306	$ 8,759,375	$ 8,927,753	$ 9,104,637
Central Michigan	**2026**	**2027**	**2028**	**2029**	**2030**	**2031**	**2032**	**2033**	**2034**	**2035**	**2036**
Pension Normal	$ 103,365	$ 87,052	$ 71,434	$ 58,741	$ 47,472	$ 37,498	$ 28,797	$ 22,473	$ 17,624	$ 13,527	$ 10,493
Pension UAAL	$ 12,850,330	$ 13,363,744	$ 13,890,056	$ 14,429,273	$ 14,981,379	$ 15,546,336	$ 16,124,079	$ 16,714,515	$ 17,317,522	$ 17,932,946	$ 18,560,599
Retiree Health Care "Normal"	$ 32,043	$ 26,986	$ 22,145	$ 18,210	$ 14,716	$ 11,624	$ 8,927	$ 6,967	$ 5,463	$ 4,194	$ 3,253
Retiree Health Care "UAAL"	$ 9,376,525	$ 9,751,148	$ 10,135,184	$ 10,528,635	$ 10,931,492	$ 11,343,725	$ 11,765,287	$ 12,196,112	$ 12,636,109	$ 13,085,167	$ 13,543,148
TOTAL	$ 22,362,263	$ 23,228,930	$ 24,118,818	$ 25,034,859	$ 25,975,059	$ 26,939,184	$ 27,927,091	$ 28,940,066	$ 29,976,718	$ 31,035,834	$ 32,117,493
SAF Subsidy	$ 10,067,627	$ 10,718,524	$ 11,386,422	$ 12,071,200	$ 12,772,700	$ 13,490,715	$ 14,224,994	$ 14,975,231	$ 15,741,066	$ 16,522,082	$ 17,317,795
University Obligation	$ 12,294,636	$ 12,510,406	$ 12,732,397	$ 12,963,658	$ 13,202,359	$ 13,448,468	$ 13,702,097	$ 13,964,835	$ 14,235,652	$ 14,513,752	$ 14,799,698
Michigan Tech	**2026**	**2027**	**2028**	**2029**	**2030**	**2031**	**2032**	**2033**	**2034**	**2035**	**2036**
Pension Normal	$ 57,650	$ 50,137	$ 41,581	$ 34,348	$ 27,921	$ 22,187	$ 17,347	$ 13,531	$ 10,191	$ 7,649	$ 5,780
Pension UAAL	$ 5,612,815	$ 5,832,771	$ 6,058,522	$ 6,290,114	$ 6,527,590	$ 6,770,981	$ 7,020,313	$ 7,275,600	$ 7,536,849	$ 7,804,053	$ 8,077,195
Retiree Health Care "Normal"	$ 17,872	$ 15,542	$ 12,890	$ 10,648	$ 8,655	$ 6,878	$ 5,378	$ 4,195	$ 3,159	$ 2,371	$ 1,792
Retiree Health Care "UAAL"	$ 4,095,513	$ 4,256,009	$ 4,420,733	$ 4,589,720	$ 4,762,999	$ 4,940,595	$ 5,122,525	$ 5,308,801	$ 5,499,427	$ 5,694,398	$ 5,893,702
TOTAL	$ 9,783,850	$ 10,154,459	$ 10,533,726	$ 10,924,830	$ 11,327,165	$ 11,740,641	$ 12,165,562	$ 12,602,126	$ 13,049,626	$ 13,508,472	$ 13,978,469
SAF Subsidy	$ 4,397,375	$ 4,678,232	$ 4,966,494	$ 5,262,166	$ 5,565,238	$ 5,875,685	$ 6,193,464	$ 6,518,513	$ 6,850,751	$ 7,190,074	$ 7,536,352
University Obligation	$ 5,386,474	$ 5,476,227	$ 5,567,231	$ 5,662,664	$ 5,761,927	$ 5,864,955	$ 5,972,098	$ 6,083,613	$ 6,198,874	$ 6,318,398	$ 6,442,117
Lake Superior State	**2026**	**2027**	**2028**	**2029**	**2030**	**2031**	**2032**	**2033**	**2034**	**2035**	**2036**
Pension Normal	$ 11,993	$ 10,333	$ 7,952	$ 5,870	$ 4,337	$ 3,255	$ 2,463	$ 1,893	$ 1,435	$ 1,045	$ 749
Pension UAAL	$ 1,021,695	$ 1,044,251	$ 1,068,795	$ 1,095,444	$ 1,124,328	$ 1,155,588	$ 1,189,379	$ 1,225,870	$ 1,265,245	$ 1,307,708	$ 1,353,478
Retiree Health Care "Normal"	$ 3,718	$ 3,203	$ 2,465	$ 1,820	$ 1,345	$ 1,009	$ 764	$ 587	$ 445	$ 324	$ 232
Retiree Health Care "UAAL"	$ 745,502	$ 761,961	$ 779,870	$ 799,315	$ 820,390	$ 843,200	$ 867,856	$ 894,483	$ 923,214	$ 954,198	$ 987,595
TOTAL	$ 1,782,908	$ 1,819,749	$ 1,859,082	$ 1,902,448	$ 1,950,400	$ 2,003,051	$ 2,060,462	$ 2,122,832	$ 2,190,339	$ 2,263,274	$ 2,342,053
SAF Subsidy	$ 800,450	$ 837,552	$ 876,149	$ 916,424	$ 958,570	$ 1,002,790	$ 1,049,294	$ 1,098,308	$ 1,150,067	$ 1,204,825	$ 1,262,850
University Obligation	$ 982,459	$ 982,196	$ 982,933	$ 986,025	$ 991,830	$ 1,000,262	$ 1,011,167	$ 1,024,524	$ 1,040,272	$ 1,058,449	$ 1,079,203
TOTAL	**2026**	**2027**	**2028**	**2029**	**2030**	**2031**	**2032**	**2033**	**2034**	**2035**	**2036**
Pension Normal	$ 374,994	$ 313,396	$ 254,937	$ 206,835	$ 165,788	$ 132,426	$ 102,622	$ 79,185	$ 60,320	$ 45,675	$ 34,360
Pension UAAL	$ 46,890,088	$ 48,531,241	$ 50,229,835	$ 51,987,879	$ 53,807,455	$ 55,690,716	$ 57,639,891	$ 59,657,287	$ 61,745,292	$ 63,906,377	$ 66,143,100
Retiree Health Care "Normal"	$ 116,248	$ 97,153	$ 79,030	$ 64,119	$ 51,394	$ 41,052	$ 31,813	$ 24,547	$ 18,699	$ 14,159	$ 10,652
Retiree Health Care "UAAL"	$ 34,214,380	$ 35,411,884	$ 36,651,300	$ 37,934,095	$ 39,261,789	$ 40,635,951	$ 42,058,209	$ 43,530,247	$ 45,053,805	$ 46,630,689	$ 48,262,763
TOTAL	$ 81,595,711	$ 84,353,674	$ 87,215,102	$ 90,192,928	$ 93,286,426	$ 96,500,144	$ 99,832,535	$ 103,291,267	$ 106,878,116	$ 110,596,900	$ 114,450,875
SAF Subsidy	$ 36,736,171	$ 38,924,968	$ 41,176,082	$ 43,491,873	$ 45,874,712	$ 48,326,987	$ 50,851,096	$ 53,449,451	$ 56,124,470	$ 58,878,580	$ 61,714,208
University Obligation	$ 44,859,539	$ 45,428,707	$ 46,039,019	$ 46,701,055	$ 47,411,714	$ 48,173,157	$ 48,981,440	$ 49,841,816	$ 50,753,646	$ 51,718,320	$ 52,736,667

Sources: Office of Retirement Services, MPSERS universities, AEG estimates
Analysis: Anderson Economic Group, LLC