ANDERSON ECONOMIC GROUP

Memorandum

Date: December 5, 2016

From: Jason Horwitz, Senior Consultant

Re: Fiscal Impact of SB 102, SB 1177, and SB 1178

Cc:

Purpose of Memorandum

Public pensions are a major source of fiscal pressure for state and local governments in Michigan and across the country. Michigan has made extensive reforms to reduce the cost of pension benefits for current employees and to more responsibly fund pensions going forward. Among other reforms, the State closed its legacy pension plans for school employees (Michigan Public School Employees Retirement System, or MPSERS, Basic and MIP plans) that are responsible for all of the unfunded liabilities in the MPSERS system. The remaining hybrid pension system (MPSERS Pension Plus) is fully funded at this time.

The Macomb County superintendents commissioned Anderson Economic Group to perform an analysis on the effects of three pension reform bills under consideration in the Michigan Senate: Senate Bills 102, 1177, and 1178 (SB 102, SB 1177, and SB 1178). These bills would close the MPSERS hybrid pension plan to all new public school employees in Michigan, and place those employees into a defined contribution plan. They would also encode in law continuation of the amortization period that has been used since 1996, and set a separate amortization period for any future increases due to changes in the assumed return on investment in the plan.[1]

In the following memorandum, we touch on three areas in particular:

- Recent efforts to reform MPSERS and how these efforts have affected the cost of pensions.
- The potential effect of SB 102, SB 1177, and SB 1178 on school district pension contributions.
- A look at the consequences of a hypothetical scenario in which the amortization period for the MPSERS unfunded liability is extended considerably. We evaluate how this hypothetical scenario would effect State and school district funding, balance sheets, and credit ratings.

1.Michigan has funded the MPSERS pension plan using a declining amortization period since 1996. With few exceptions, the amount that school districts pay into the system has been determined using an amortization period that declines by one year as each year passes, resulting in an effective closed amortization period that would end in 2039.

Overview of Approach

We began our analysis by closely reviewing the bills and discussing their potential implications with other experts in the field. We then collected extensive data on MPSERS contributions, liabilities, and more using MPSERS Comprehensive Annual Financial Reports (CAFRs), MPSERS Actuarial Valuation Reports, and reports and presentations from the Michigan House and Senate Fiscal Agencies.

To estimate the fiscal impact of these bills, we used information from the SFA for short-term normal costs and provide estimates based on potential future payroll growth for long-term effects. For the fiscal impact of potential changes to the amortization period, we performed an actuarial analysis using an original model that provides estimates of the unfunded liability and employer contributions over time, given specific details and assumptions about MPSERS and statutory requirements related to funding pensions in Michigan. Note that the amortization period going forward is not changed in this package of bills. We present this impact as a hypothetical scenario to illustrate the cost of changes to the amortization period in the future.

We performed extensive research on Governmental Accounting Standards Board (GASB) rules and how ratings agencies have responded to similar changes in the past in order to understand how changes to the amortization period or to pension funding could affect the State's and school districts' reported liabilities or credit rating,

See "Appendix A. Methodology" on page 10 for more information on our methods, assumptions, and sources.

Set of Bills Reviewed

We briefly summarize the three bills that we discuss in this memo below:

Senate Bill 102 of 2015. SB 102[2] would close the MPSERS pension plan to all future hires. New hires and any members that had previously opted into the defined contribution plan in MPSERS would be placed in a defined contribution plan that is the same as that available to state employees. The employer would automatically contribute 4% of a member's salary to a defined contribution fund, and would also match an employee contribution of up to 3%. This would result in a maximum employer contribution of 7%.

The bill also locks into place the current amortization schedule that requires that the MPSERS unfunded liability be paid off at a level share of payroll by the year 2039. It adds that any increase in unfunded liability due to a decrease in the assumed rate of return on assets will be paid off separately, over a 40-year amortization period that ends by 2058.[3]

Senate Bill 1177 of 2016. Each year, the legislature amends the State School Aid Act to determine the budget for education and articulate guidance and regulations for school districts in the state. SB

2.For this memorandum, we use the substitute of this bill, S-3, which was introduced in Senate committee on November 30, 2016.

3.According to the Senate Fiscal Agency, the Michigan Treasury has suggested that, if the system is closed, the Treasury would recommend reducing the discount rate applied to liabilities in the year 2039 and beyond since they would need to pursue a more conservative investment strategy to preserve fund assets. Since this change is not explicitly required in these bills, we do not speculate as to its implementation or effect in this memorandum.

1177 would amend this year's State School Aid Act provision that determined employer contributions to MPSERS. While the bill would not change any of the contribution rates, it would erase language in the State School Aid Act that refers to an amortization of the MPSERS unfunded liability over 22 years from the 2016-2017 fiscal year, and instead refer to the new language from SB 102 outlining the amortization period for MPSERS unfunded liabilities. Presumably, this change was made so that this year's State School Aid Act reforms can act as a template for future years.

Senate Bill 1178 of 2016. The Michigan Public Employee Retirement System Investment Act provides rules and regulations for all public pension plans in Michigan. Beginning with FY 2007, this act prohibited any public pension plan in Michigan from using an amortization period longer than 30 years to pay down an unfunded liability. SB 1178 would carve out an exception from this limit for MPSERS beginning with the current fiscal year (FY 2017). Instead, the amortization period would be as defined in SB 102. This bill is tie-barred to SB 102, meaning it will only go into effect if SB 102 is passed.

Presumably, this change is included to allow for the 40-year amortization period required for future increases in liability due to changes in the assumed rate of return for pension assets. It makes it so that the only remaining statutory limit on the amortization period for MPSERS is one that limits the amortization period to 50 years in Section 41.

Findings

Our research and analysis resulted in the following findings:

MPSERS and Recent Pension Reform Efforts

1. *Since 2008, the State of Michigan has made three significant reforms to reduce pension costs for school districts by lowering employee benefits and increasing employee contributions.*

The Michigan legislature has enacted a number of reforms to its retirement systems in recent years in an attempt to improve the State's fiscal situation. The first major reform to the MPSERS system came in 2008 when the State passed a law that increased the required employee contribution rate from 4.3% to 6.4% of salary above $15,000 for all new hires. This contribution increase came without adding any additional benefits. The new law also restricted service time purchases for new hires.

In 2010, the legislature passed a law that established a new hybrid pension plan known as "Pension Plus." The new Pension Plus plan applies to all MPSERS participants who began participating in MPSERS after June 30, 2010. The plan includes both defined contribution and defined benefit components.

The defined benefits of Pension Plus are lower than those of MPSERS' Basic and MIP plans (the plans in effect prior to 2010). The required employee contributions for the Pension Plus defined benefit component are the same as for those in MIP, but the Pension Plus plan has more stringent retirement regulations and does not provide an annual cost of living adjustment as in the MIP plan.

For the defined contribution portion of the Pension Plus plan, employees by default pay 2% of their salary into a defined contribution account, though the employee may elect to contribute more or less. The employer matches these contributions at a rate of 50%, up to a total of 1% of compensation.

Finally, in 2012, the State passed a law that required all enrollees who were hired between 1990 and 2008 to make a choice. They could either increase their contribution rate and receive the same benefits or keep the same contribution rate and receive lower benefits in retirement for all service time starting in 2013. The law also imposed a 3% contribution rate on employees opting to participate in the retiree health care plan, doubled the amount that retirees would need to contribute for their retiree health care premiums, and closed the retiree health care plan for all employees hired in 2013 or later. Finally, this law capped the amount that school districts would be required to contribute for pension and retiree health care unfunded liabilities at 20.96% of payroll. Any employer contributions for unfunded liabilities above this amount would be paid by the School Aid Fund.

2. These reforms worked. Normal costs for plans have decreased considerably since these reforms began in 2008. However, liabilities that accrued prior to these reforms are now significantly underfunded and still represent the bulk of the State and school districts' pension costs.

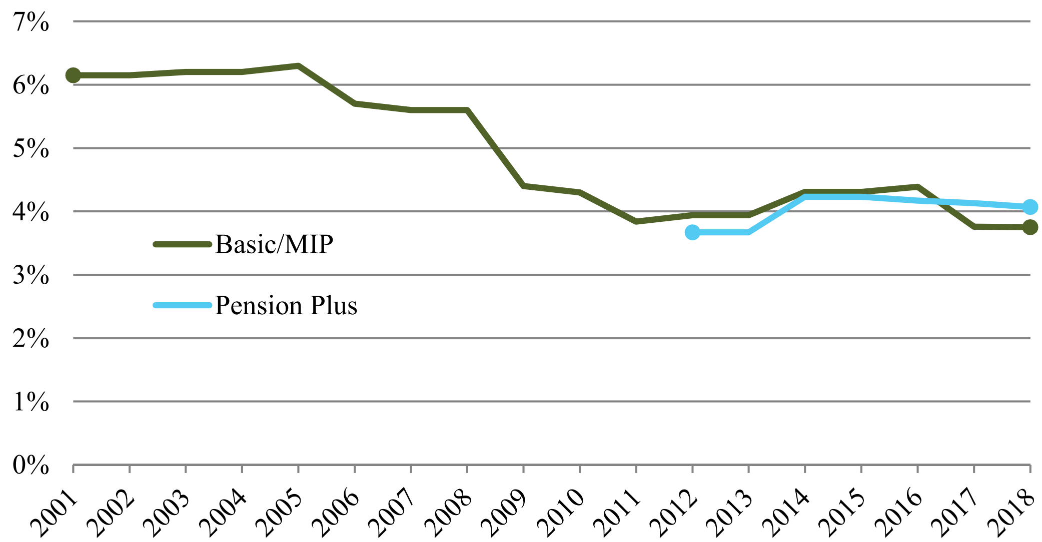
Normal costs—the cost of covering benefits accrued by MPSERS members each year—have decreased for Basic/MIP plan members, and have remained steady at a relatively low rate for Pension Plus members. In FY 2018 the normal cost for Basic/MIP plan participants will be 3.75% of payroll. The normal cost for Pension Plus participants will be 4.07% of payroll, including both the normal cost for the defined benefit portion of the hybrid plan (3.07%) and the 1% match for the defined contribution portion. Over the last six years, the normal cost for both Basic/MIP and Pension Plus have been about the same, and remain lower than MPSERS normal costs in any year before 2010. Figure 1 on page 5 shows the normal costs for the Basic/MIP and Pension Plus plans from 2001 to 2018.

While the normal costs for the MPSERS plans are relatively low, they only represent a small portion of the cost of MPSERS to the employer because of the size of the unfunded liability in MPSERS. This year, while the average normal cost for the Basic/MIP plan is 3.75% of payroll, the unfunded liability cost is 22.18% of payroll. This is not surprising, since none of these reforms were intended to lower unfunded liability costs. Indeed, the state constitution prevents reductions in benefits that have already been accrued, so such a reform would not be legal.[4] The only way to reduce unfunded liabilities in Michigan is to pay for them.

Plans with lower normal costs present a lower risk of future unfunded liabilities. According to the most recent actuarial valuation, the Pension Plus plan is slightly *overfunded* (i.e., it has a negative unfunded liability). The entire unfunded liability in the MPSERS system is due to benefits accrued by members of the plans that closed in 2010 or earlier.

4.“The accrued financial benefits of each pension plan and retirement system of the state and its political subdivisions shall be a contractual obligation thereof which shall not be diminished or impaired thereby.” *Constitution of Michigan of 1963*, Section 24.

FIGURE 1. Normal Costs, MPSERS Plans, FY 2001 to FY 2018 (share of active payroll)



Sources: MPSERS Comprehensive Annual Financial Reports, 2001 to 2011; Senate Fiscal Agency; MPSERS Actuarial Valuation Reports, 2013 to 2015.
Analysis: Anderson Economic Group, LLC
Notes: The year on the x-axis reflects the year in which employer is obligated to pay the normal cost, not the year in which the normal cost is actuarially determined. "Pension Plus" normal costs include 1% contribution for the defined contribution match. The Basic/MIP plan cost reported for 2011 is a systemwide average that includes Basic/MIP members along with a small number of Pension Plus participants.

Fiscal Impact of SB 102, SB 1177, and SB 1178

3. Closing the hybrid plan and putting all new employees into a defined contribution plan would not reduce the unfunded liability, and would result in a significant increase in costs for school districts. Normal costs of the defined contribution plan would be significantly higher than normal costs for the hybrid plan.

As we show in Figure 1 above, normal costs for the Pension Plus plan (in which all new employees are now enrolled) are 4.07% of payroll, and have hovered around that percentage for several years. Under the defined contribution plan proposed in SB 102, employers would deposit 4% of the employee's salary into a 401k-style plan with a maximum employer contribution of 7% after matching. If normal costs remain at these levels for both plans, employers would have to make larger contributions to cover normal costs under the new plan compared to the hybrid plan.

Analysis by the Michigan Senate Fiscal Agency (SFA) shows that, within five years, the additional annual normal costs under the new plan would reach $71 million.[5] Over the long run, the size of additional costs added under the new plan will depend on the rate at which MPSERS payroll grows. Our analysis shows that if MPSERS payroll stays the same and does not grow, the additional cost of

5.Kathryn Summers, "Replacing MPSERS Hybrid with 401k," Bill Analysis of Senate Bill 102 (Substitutes S-3), Michigan Senate Fiscal Agency, November 30, 2016.

the new plan would reach $223 million annually by 2048. If payroll grows by 2% per year, the additional cost of the new plan would reach $428 million annually by 2048. If payroll grows by 4% per year, the additional costs of the new plan would be $813 million annually in 2048.

TABLE 1. Additional Normal Costs Resulting from Switch to Defined Contribution Plan (millions)

Fiscal Year	Additional Normal Costs
2018	$16
2019	$29
2020	$42
2021	$56
2022	$71

Source: Michigan Senate Fiscal Agency

TABLE 2. Projected Additional Normal Costs Resulting from Switch to Defined Contribution Plan, FY 2048 (millions)

Average Annual Payroll Growth Rate, FY 2018 to FY 2048	Additional Normal Cost in FY 2048
0%	$223
2%	$428
4%	$813

Source: AEG estimates based on SB 102 and data from MPSERS 2015 Actuarial Report

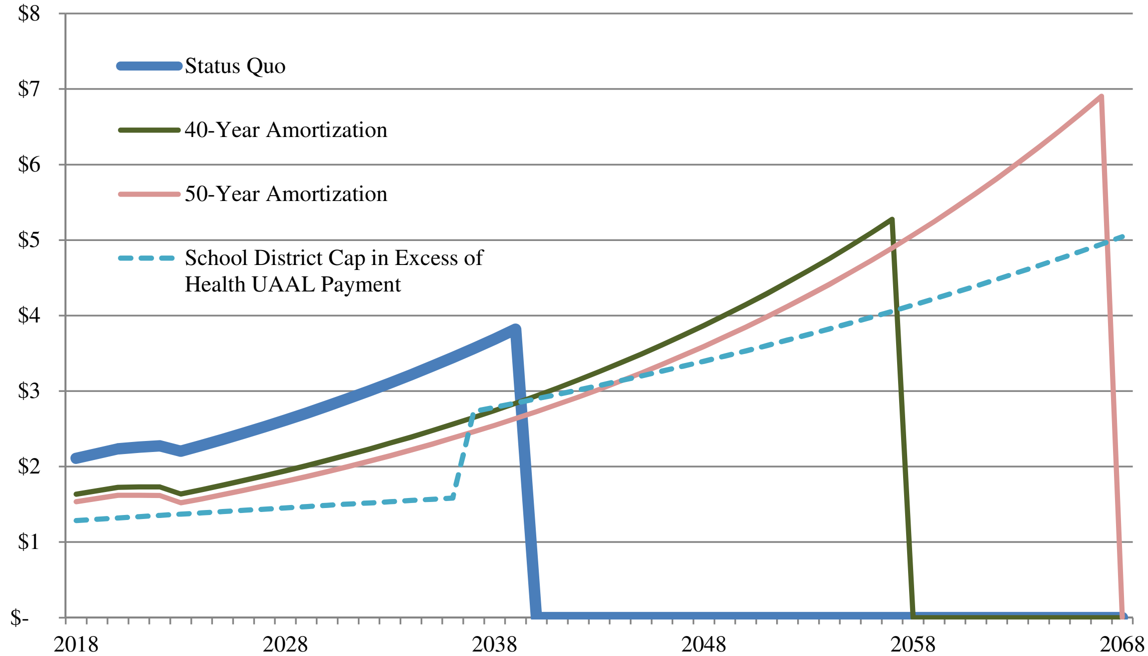
Impacts of Extending the Amortization Period

4. Extending the amortization period would result in short-term savings for the State, but higher long-term costs. School districts would realize no direct short-term savings and would see much higher long-term costs.

This package of bills would solidify the current amortization period, in which the State of Michigan would achieve full funding of the MPSERS pension plan by 2039.[6] Despite this fact, the temptation always exists to find short-term savings by making a statutory change that results in a longer amortization period. Furthermore, SB 1178 removes the 30-year limit on the amortization period for MPSERS, leaving only a 50-year limit (in Section 41) in place.

6.While there is currently no statutory requirement that the pension fund reach full funding by 2039, the legislature has reduced the amortization period by one year each year, effectively resulting in a fixed amortization period that would end in 2039 if carried out until its conclusion.

FIGURE 2. Total Annual Unfunded Liability Payments for MPSERS Under Three Different Funding Scenarios, 2018 to 2068 (billions)



Source: AEG Estimates based on data from MPSERS 2015 Actuarial Report.
Notes: The school district cap line reflects the estimated maximum that school districts would be required to pay for pension unfunded liabilities (after accounting for retiree health care). The school district cap shown here is based on the assumption that active member payroll will increase by 2% annually, and that MPSERS will remain on track for full funding of retiree health care obligations by 2036.

For the sake of illustration, we estimated the cost to the State and to school districts of extending the amortization period for paying off the entire MPSERS unfunded liability for pensions to 40 years and 50 years, respectively. Extending the amortization period would be *very* costly for school districts. With a 50-year amortization period, while the State School Aid Fund (SAF) would save almost $600 million in the coming fiscal year, school districts would not directly save any money since they would still be up against a 20.96% payroll cap on their unfunded liability payments.[7] In addition, over the course of the 50-year period, school districts would pay a total of $142 billion—over $100 billion more than the $36 billion school districts are projected to pay over the next 22 years under the current amortization schedule.

Because of ballooning payments and concerns about generational equity, the Government Finance Officers Association (GFOA) recommends that amortization periods not exceed 25 years and that amortization periods should be even shorter for plans not open to new members. We summarize the annual payments for unfunded liabilities in these three scenarios in Table 3 on page 8.

7.School district payments for MPSERS unfunded liabilities cannot exceed 20.96% of payroll. If the contribution rate is higher than 20.96%, the School Aid Act pays the difference. This cap includes the combined unfunded liabilities for pensions and retiree health care. For these calculations, we assume that the health care unfunded liability would be paid down by the year 2036. This is why the school district cap that applies to unfunded liability payments for pensions alone jumps in the year 2036 in Figure 2.

TABLE 3. Payments for MPSERS Pension Unfunded Liability by School Districts and the State Under Three Funding Scenarios, 2018 to 2068 (billions)

	Source of Payments	2018	2025	2038	2055	2066	Total
Status Quo	School Districts	$1.29	$1.40	$2.79	$0.00	$0.00	$35.64
	State School Aid Fund	$0.83	$0.96	$0.98	$0.00	$0.00	$25.42
40-Year Amortization	School Districts	$1.29	$1.40	$2.74	$3.90	$0.00	$97.56
	State School Aid Fund	$0.35	$0.35	$0.00	$1.02	$0.00	$20.10
50-Year Amortization	School Districts	$1.29	$1.40	$2.55	$3.90	$4.85	$141.83
	State School Aid Fund	$0.25	$0.23	$0.00	$0.67	$1.82	$26.91

Source: AEG Estimates based on data from MPSERS 2015 Actuarial Report.
Notes: Distribution of payments between school districts and the School Aid Fund are based on the assumption that active member payroll will increase by 2% annually.

5. A change in the amortization period would be unlikely to affect the way that the State and school districts are required to estimate net pension liabilities on their balance sheets under GASB rules.

In 2012, GASB issued statement numbers 67 and 68, changing how pension liabilities are calculated for reporting purposes. Governments are no longer allowed to calculate the present value of future liabilities at their assumed rate of return if they have insufficient assets to pay the value of the liabilities. If projected assets and contributions are insufficient to cover future benefits, the uncovered portion of benefits must be discounted using a lower discount rate and show up as a higher liability on today's balance sheet. If the State drastically lowers contributions to the MPSERS pension fund, it is possible that these changes could result in their being required to use this lower discount rate. That does not appear to be a concern with the bills examined here.

As long as the government sticks to a payment schedule that will eventually provide sufficient funds to pay liabilities, even on a long time horizon, then the lower discount rate will not be applied. Actuaries have discretion in projecting future State contributions. If the State has reliably made payments, and if there are statutory requirements in place that mandate full funding at some future point, the actuaries are likely to assume that future assets will be enough to cover future liabilities.[8]

If the State proceeds with a *closed* amortization schedule and continues to make the payments required by the schedule, the State will not be required to use a lower discount rate when reporting liabilities, even if those payments are made over an extended period.

However, if contributions are made on an *open* amortization schedule, projected contributions will not be sufficient to pay future benefits. In an open amortization schedule, each year the payment schedule is recalculated over the same future time period such that the debt is never fully paid off. Open amortization schedules can lead to massive and growing unfunded liabilities because projected payment increases are continuously pushed off. In that case, actuaries will require that the state use a lower discount rate in reporting a substantial share of future liabilities.

8.Milliman, "GASB 67/68: Depletion Date projections," March 2014.

6. Extending the amortization period would have ambiguous effects on the State's credit rating. The effect on school districts will depend heavily on how these changes affect appropriations to school districts.

Ratings agencies determine the creditworthiness of local governments by analyzing their ability to generate revenues and disburse "full and timely principal and interest on [a] specific debt obligation."[9] To do this, ratings agencies analyze "strategic factors likely to support future cash flow" against "critical factors that will inhibit future cash flow."[10]

The School Aid Fund will gain some measure of short-term relief from pension payments due to the increased amortization period, in exchange for significantly higher liabilities in the future. This is similar to a "scoop and toss" method used by governments to defer debt service payments. This financial practice can be useful for governments in crisis if it helps them to avoid missing debt service payments and other critical payments for government operations.[11] However, these deferred amortization approaches are viewed unfavorably by ratings agencies as an unsustainable fiscal practice.[12]

The eventual impact on credit ratings will be heavily dependent on how the funds that otherwise would have paid down pension obligations are used. If the money is used to improve the health of school district balance sheets, there could be a positive impact on credit ratings. Without that help, extending the amortization period will place a significant burden on school districts for an extended period. Furthermore, because school districts would still be up against an annual spending cap, any short-term fiscal benefits would be at the discretion of the State. Therefore, school districts are less likely than the State to see any positive impact on their credit ratings even if they do see some relief.

Finally, while we determine in the previous finding that changes to the amortization period will not affect the reported net pension liability, we should note that variations in *reported* pension liability do not necessarily affect credit ratings. Credit rating agencies use the market value of pension fund assets and estimated future benefits to calculate their own internal adjusted net pension liabilities estimates, independent of those reported by the government and those required by GASB. These adjusted liabilities are not reliant on the discount rate used in the government balance sheet.

9. Moody's Rating Policy & Approach, <https://www.moodys.com/Pages/amr002003.aspx>, last accessed November 11, 2016.
10. Ibid.
11. Yvette Shields, "Praise for Chicago Budget, With Caveats", *The Bond Buyer*, November 2, 2016.
12. Shelly Sigo, "Louisiana Bond Commission Approves 'Scoop-and-Toss' Deal," *The Bond Buyer*, November 22, 2016.

Appendix A. Methodology

Normal Cost Calculations

Normal cost data used in this report come from several sources. Data for fiscal years 2011-18 come from the September 2011 through September 2015 MPSERS Annual Actuarial Valuation reports. For fiscal years 2001-10, normal cost data come from MPSERS CAFRs for the corresponding years.

For the hybrid Pension Plus plan, all reported normal costs includes both the normal cost for the defined benefit portion of the plan (3.07% in FY 2018) plus the cost of the employer match for the defined contribution portion of the plan (1%).

In order to calculate the additional long-term normal costs of the defined contribution plan described in SB 102, we projected MPSERS payroll under three different growth scenarios through the year 2048. For each scenario, we increased the 2015 total active payroll by 0%, 2%, and 4%, respectively, each year through 2048. Total active payroll was $8.0 billion in 2015, according to the most recent MPSERS actuarial valuation report.

Today, 95% of members in MPSERS have 30 years or less of service time, according to the 2016 actuarial report. We assumed that this trend would continue, and that roughly 95% of MPSERS payroll in 2048 would consist of members of the new defined contribution plan. We then multiplied this 95% total under each scenario by 2.93%, which is the incremental normal cost, as a share of active payroll, by which the defined contribution plan exceeds the hybrid plan. We then multiplied this amount by the projected payroll level in 2048. We assumed that the normal cost of the hybrid plan will remain at its current 4.07% level in 2048.

Unfunded Liability Cost Calculations

To estimate the unfunded liability cost in each year for the next 50 years under a range of scenarios, we used the same methods and assumptions required by state law and implemented by the state's actuary, where possible. All of our projections entail the assumption that actuarial estimates regarding market returns, retiree longevity, and the size of future benefits will be accurate.

We began with the unfunded liability at the end of fiscal year 2015 as reported in the 2015 Actuarial Valuation Report. We then subtracted out the portion of that unfunded liability attributable to early retirement incentives (ERI) and the portion that would be covered by reconciliation payments over the ensuing 6 years, also shown in the 2015 Actuarial Valuation Report.

We calculated the employer contributions required to pay down the remaining unfunded liability under two scenarios. The first "Status Quo" scenario would require that the unfunded liability be reduced to zero by the year 2039. The second "40-year Amortization" scenario would require that the unfunded liability be reduced to zero by the year 2058. The third "50-Year Amortization" scenario would require that the unfunded liability be reduced to zero by the year 2068. In each case, we assumed that the employer contribution would increase by 3.5% annually and that any remaining unfunded liability would increase by 8% annually.[13] Once we had made those assumptions, we determined the amount required in each year that would achieve the goal of zero

13.The 8% discount rate corresponds to the assumed rate of investment return for the MIP/Basic plans. Since the entire unfunded liability is attributable to members of those plans, then we do not need to incorporate any of the 7% discount rate that would apply to liabilities arising from the Pension Plus plan.

unfunded liability by the required year. We assumed that the contributions were made midway through each fiscal year.

School District Cap

In order to determine how the unfunded liability cost would be distributed between the School Aid Fund (SAF) and school districts, we had to estimate the level of the cap for unfunded liability payments from school districts. The cap is set at 20.96% of payroll and applies to the unfunded liability payment for pensions, retiree health care, and early retirement incentives.

We assumed that payroll would grow at a rate of 2% annually starting with the 2015 member payroll of $8,426.8 million as reported in the MPSERS 2015 Actuarial Valuation Report. Note that payroll has in fact been flat or declining over the past ten years, so this is an optimistic assumption. Next, we assumed that the contribution rate for the health care unfunded liability would increase by 1.47% each year. We arrived at this estimate by dividing the actuarially assumed growth in payroll used to determine the contribution rate (1.035, or 3.5%) by our own assumption about payroll growth (1.02, or 2.0%). We assumed that the health care unfunded liability would go away after the year 2036 since the current payment schedule is amortized over that period.

Once we had estimated the payroll in each future year, as well as the contribution rate for the health care unfunded liability, we could estimate the estimated maximum payment for the pension unfunded liability alone under the cap for school districts. In each year we subtracted the contribution rate for the health care unfunded liability from the 20.96% cap, and then multiplied the result by that year's estimated payroll.[14]

Additional Sources

- MPSERS 2015 GASB 67/68 Schedules Report.
- MPSERS 2015 CAFR.
- *Exposure Draft: U.S. Tax-Supported Rating Criteria*, Fitch Ratings, September 10, 2015.
- *Exposure Draft: Incorporating Enhanced Recovery Prospects into U.S. Local Tax-Supported Ratings*, Fitch Ratings, February 2, 2016.
- Yvette Shields, "Chicago Public Schools Gets Sale Done at Big Penalty," *The Bond Buyer*, February 3, 2016.

14. We ignore the fact that the payroll cap for contributions from higher education institutions is actually 25.73% in this calculation. Higher education institutions represent a very small portion of the payroll, and information on their payroll is not as readily available.

Appendix B. About Anderson Economic Group

Anderson Economic Group, LLC is a boutique consulting firm founded in 1996, with offices in East Lansing, Chicago, New York, and Istanbul. Our team has a deep understanding of advanced economic modeling techniques and extensive experience in multiple industries in multiple states and countries. We are experts in tax policy, strategy and business valuation, public policy and economic analysis, and market and industry analysis.

The consultants at Anderson Economic Group are often published on topics within their respective fields of expertise. Publications from our team include:

- *Proposed Reforms to Chicago Pensions,* AEG white paper, published in 2014.
- *Impacts of Funding Reforms on Police and Fire Pension Funds,* 2015.
- *Annual State Business Tax Burden Rankings*, published since 2007.
- *The State Economic Handbook*, published by Palgrave Macmillan, 2008, 2009, and 2010.

Past clients of Anderson Economic Group include:

Governments: The government of Canada; the states of Michigan, North Carolina, and Wisconsin; the cities of Detroit, Cincinnati, and Sandusky; counties such as Oakland County, and Collier County; and authorities such as the Detroit-Wayne County Port Authority.

Corporations: Ford Motor Company, First Merit Bank, Lithia Motors, Spartan Stores, CVS Caremark, Nestle, and InBev USA; automobile dealers and dealership groups representing Toyota, Honda, Chrysler, Mercedes-Benz, General Motors, Kia, and other brands.

Nonprofit organizations: Convention and visitor bureaus of Lansing, Ann Arbor, Traverse City, and Detroit, and Experience Grand Rapids; higher education institutions including Michigan State University, Wayne State University, and University of Michigan; trade associations such as the Michigan Manufacturers Association, Service Employees International Union, Automation Alley, the Michigan Chamber of Commerce, and Business Leaders for Michigan.

Please visit www.AndersonEconomicGroup.com for more information.