MERS®
Municipal Employees' Retirement System

GASB 68
IMPLEMENTATION GUIDE
For 3rd Year and Beyond

For plans with fiscal years ending December 31, 2017

What's new for the 3rd year?

- New investment return assumptions of 7.75%

Contents

Overview & Timeline. 3

GASB Implementation Timeline 3

Recording Your Initial Net Pension Liability 4

Calculating Net Pension Liability 5

Step 1: Calculate Interest on Total Pension Liability 5

Click to Open 5

Interest on TPL Template 5

Step 2: Calculate Net Pension Liability. 6

Deferred Outflows and Inflows. 7

Step 3: Calculate the Recognition of Experience & Assumption Changes. 7

Step 4: Calculate the Projected Investment Return & Recognition of Investment Gain or Loss . . .8

Step 5: Update the Deferred Outflows and Inflows Spreadsheet 9

Recording the Yearly Pension Expense 11

Step 6: Calculate Pension Expense. 11

Step 7: Prepare Journal Entries 12

Recognition of Net Pension Liability 13

Note Disclosures 14

Summary of Significant Accounting Policies. 14

General Information about the Pension Plan 14

Changes in Net Pension Liability. 17

Pension Expense and Deferred Outflows of Resources and Deferred Inflows of Resources Related to Pensions 17

Required Supplementary Information 18

Appendix Discussion For GASB 68 19

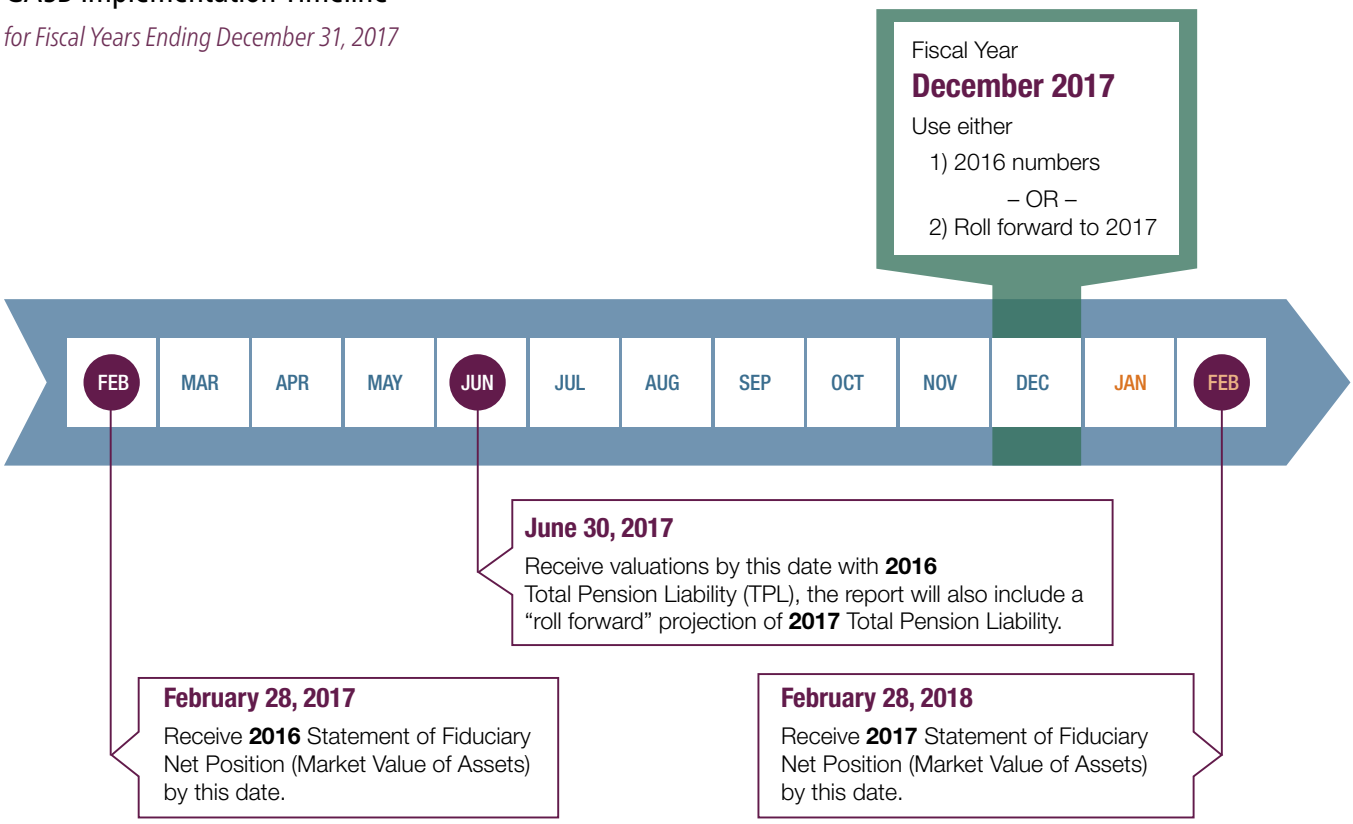
OVERVIEW & TIMELINE

This implementation guide is intended to assist you in preparing the related financial statements associated with the Government Accounting Standards Board (GASB) Statement 68 relating to pensions. It will provide examples of how to construct the required charts, journal entries, note disclosures and required supplementary information. Excel templates are also available to help you prepare and maintain the financial statements and record keeping. The responsibility for preparing the financial statements resides with the municipality; however we have many helpful resources on our website www.mersofmich.com. This implementation guide is intended for employers with a fiscal year that ends December 31st, 2017 who will be using a "Roll forward" number to calculate their Net Pension Liability (NPL). GASB allows a roll forward or projected number for those municipalities whose year-end falls in a time period where it will be difficult to have an actuarial valuation done in sufficient time with the closing of the municipality's books. This example uses 2017 roll forward numbers.

You could use 2016 numbers, if so you will have to use the December 2016 Actuarial Valuation and December 2016 Statement of Financial Position, and follow the attached examples. The December 2016 valuation will have both 2016 and 2017 Total Pension Liability (TPL) numbers to allow you to roll forward to December 2017 to complete the recording of your NPL. You will also need the December 31, 2017, Statement of Fiduciary Net Position which you will receive in early February 2018 from MERS. Alternatively, GASB does allow for the measurement date to be one year behind for those employers with fiscal year ends of December 31st. They can use the prior year's valuation information measured as of December 31, 2016. This applies only to those employers with fiscal years that end in December. If you choose to roll forward to December 2017, or if you rolled forward in a previous year, however, you are 'locked in' to using the roll forward numbers going forward. You do not need to notify MERS if you decide to roll forward.

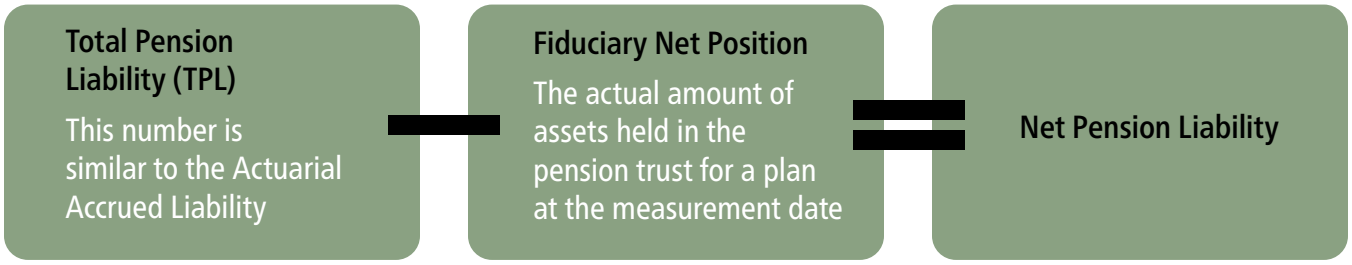
GASB Implementation Timeline

for Fiscal Years Ending December 31, 2017



Net Pension Liability

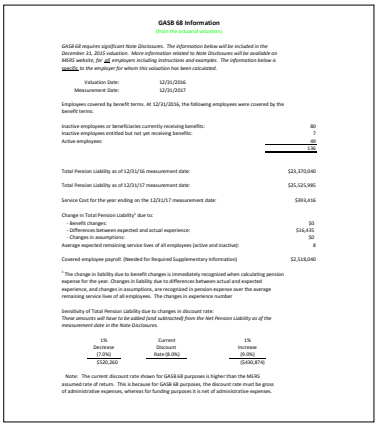
Net Pension Liability is the difference between the Total Pension Liability and the Fiduciary Net Position (also called Market Value of Assets) as of the measurement date. For MERS municipalities the measurement date is December 31st of each year.



The municipality will have completed two years of GASB and will now be recording journal entries for the 3rd year and beyond.

- Total Pension Liability will be supplied by the actuary in the GASB 68 information section of your 2016 annual valuation, see Figure 1. This report is delivered to you by June 30th of each year, and is located on your employer portal.
- Market Value of Assets is located on your Statement of Fiduciary Net Position dated December 31, 2016, or 2017 if using roll forward numbers. MERS will email this report in February of each year, see Figure 2.

Figure 1



GASB 68 Information

(from the actuarial valuation)

GASB 68 requires significant Note Disclosures. The information below will be included in the December 31, 2015 valuation. More information related to Note Disclosures will be available on MERS website, for all employers including instructions and examples. The information below is specific to the employer for whom this valuation has been calculated.

Valuation Date:	12/31/2016
Measurement Date:	12/31/2017

Employees covered by benefit terms. At 12/31/2016, the following employees were covered by the benefit terms:

Inactive employees or beneficiaries currently receiving benefits:	80
Inactive employees entitled but not yet receiving benefits:	7
Active employees:	40
	127

Total Pension Liability as of 12/31/16 measurement date:	$23,370,040
Total Pension Liability as of 12/31/17 measurement date:	$25,525,985
Service Cost for the year ending on the 12/31/17 measurement date:	$393,416

Change in Total Pension Liability* due to:

- Benefit changes:	$0
- Differences between expected and actual experience:	$16,635
- Changes in assumptions:	$0
Average expected remaining service lives of all employees (active and inactive):	8
Covered employee payroll: (Needed for Required Supplementary Information)	$2,518,040

* The change in liability due to benefit changes is immediately recognized when calculating pension expense for the year. Changes in liability due to differences between actual and expected experience, and changes in assumptions, are recognized in pension expense over the average remaining service lives of all employees. The changes in experience number

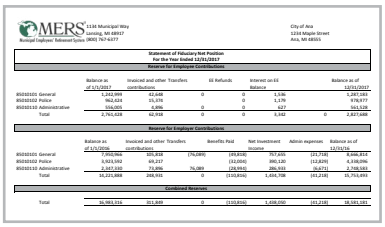
Sensitivity of Total Pension Liability due to changes in discount rate:
These amounts will have to be added (and subtracted) from the Net Pension Liability as of the measurement date in the Note Disclosures.

1% Decrease (7.0%)	Current Discount Rate (8.0%)	1% Increase (9.0%)
$530,260		($450,874)

Note: The current discount rate shown for GASB 68 purposes is higher than the MERS assumed rate of return. This is because for GASB 68 purposes, the discount rate must be gross of administrative expenses, whereas for funding purposes it is net of administrative expenses.

Click to open

Figure 2



MERS 1134 Municipal Way Lansing, MI 48917
Municipal Employees' Retirement System (800) 767-6377

City of Ann
1234 Maple Street
Ann, MI 48915

Statement of Fiduciary Net Position
For the Year Ended 12/31/2017

Reserve for Employee Contributions

	Balance as of 1/1/2017	Invoiced and other contributions	Transfers	EE Refunds	Interest on EE Balance		Balance as of 12/31/2017
850501G1 General	1,242,999	61,458	0	0	1,336		1,297,143
850501G2 Police	962,624	15,376		0	1,170		978,172
850501S1 Administrative	556,003	6,086	0	0	627		562,688
Total	2,761,626	62,918	0	0	3,142	0	2,837,688

Reserve for Employer Contributions

	Balance as of 1/1/2016	Invoiced and other contribution	Transfers	Benefits Paid	Net Investment Income	Admin expenses	Balance as of 12/31/16
850501G1 General	7,950,964	305,458	(76,089)	(49,818)	757,405	(41,714)	8,846,814
850501G2 Police	3,923,592	69,217		(32,004)	390,120	(12,829)	4,338,096
850501S1 Administrative	2,347,330	73,896	76,089	(28,993)	286,933	(6,671)	2,708,583
Total	14,221,888	448,571	0	(110,816)	1,434,708	(61,214)	15,753,493

Combined Reserves

Total	16,983,514	511,489	0	(110,816)	1,438,050	(61,214)	18,591,181

Click to open

Net Pension Liability does not necessarily need to have its own line in your financial statements; this determination will depend on the size of the liability relative to other items on your financial statements. It is important to note that Net Pension Liability is a long-term liability, and is not immediately payable. The yearly employer contribution that you make to your pension plan is calculated separately by the actuary and is in the executive summary of your annual valuation.

CALCULATING NET PENSION LIABILITY

Step 1: Calculate Interest on Total Pension Liability

To calculate the interest on Total Pension Liability, you'll need the service cost, actual pension benefit payment amount, and amount of any employee refunds. Note that once you calculate the interest on the Total Pension Liability component, you will need to record this number in the Total Pension Liability in *Step 2*.

Example: Interest on the Total Pension Liability

	Amount (a)	Time Period* (b)	Interest** (c)	Calculation (a) x (b) x (c)
Beginning of year Total Pension Liability (2016)	$23,070,040	1.0	0.08	$1,845,603
Located on actuarial valuation GASB 68 page				
Service Cost (positive number)	393,416	0.5	0.08	15,737
Located on actuarial valuation GASB 68 page				
Benefit Payments (negative number)	-110,816	0.5	0.08	-4,433
Located on MERS Statement of Fiduciary Net Position				
Employee Refunds (if any) (negative number)	0	0.5	0.08	0
Located on MERS Statement of Fiduciary Net Position				
Interest on Total Pension Liability				**$1,856,907**

** A half year is generally used because service cost, pension benefits and employee refunds occur throughout the year. Your fiscal year end will not change the time period of calculation because the measurement period is through December 31st.*

***Note: For measurement dates of 2016,and roll forwards for 2017, the discount rate is 8.00%.*

Note: The interest is calculated over the measurement period for the year ending December 31, 2016 and roll forwards for 2017.

Click to open Interest on TPL Template

Step 2: Calculate Net Pension Liability

The example below shows the two main parts of the Net Pension Liability, and how it is calculated. Subsequent calculations and journal entries will be derived from this worksheet.

Example: Calculating Net Pension Liability

Changes in Net Pension Liability	Increase (Decrease)		
	Total Pension Liability (a)	Plan Fiduciary Net Position (b)	Net Pension Liability (a) - (b)
Balances at 12/31/16 Total Pension Liability is found in the annual actuarial valuation on the GASB 68 page & Plan Fiduciary Net Position is found on the 2016 MERS Plan Fiduciary Net Position*	$23,370,040	$16,983,316	$6,386,724*
Changes for the Year			
Service Cost Located on the annual actuarial valuation GASB 68 page	393,416		393,416
Interest on Total Pension Liability *Calculated in Step 1*	1,856,907		1,856,907
Changes in benefits (If any. See also appendix.) Located on the annual actuarial valuation GASB 68 page	0		0
Difference between expected and actual experience Located on the annual actuarial valuation GASB 68 page	16,435		16,435
Changes in assumptions Located on the annual actuarial valuation GASB 68 page	0		0
Employer Contributions Located on the MERS Statement of Fiduciary Net Position		248,931	(248,931)
Employee Contributions Located on the MERS Statement of Fiduciary Net Position		62,918	(62,918)
Net investment income Located on the MERS Statement of Fiduciary Net Position		1,438,050	(1,438,050)
Benefit payments, including employee refunds Located on the MERS Statement of Fiduciary Net Position	(110,816)	(110,816)	0
Administrative expense Located on the MERS Statement of Fiduciary Net Position		(41,218)	41,218
Other changes**	3		3
Net changes	**2,155,945**	**1,597,865**	**558,080**
Balances as of 12/31/17*** Total Pension Liability is found in the annual actuarial valuation on the GASB 68 page & Plan Fiduciary Net Position is found on the 2016 MERS Plan Fiduciary Net Position	**$25,525,985**	**$18,581,181**	**$6,944,804**

**Note this number is the Net Pension Liablity from 2016 and should match the number calculated last year.*

***Other changes is an amount necessary to reconcile the 12/31/17 Total Pension Liability number from the GASB 68 section of the valuation with the numbers calculated above. It will vary from year to year, but is necessary to get the Total Pension Liability number supplied by the actuary to tie out.*

****Note that you will need to input this number in green shading from the actuarial valuation GASB 68 page. It may seem contradictory but is necessary.*

Click to open NPL Calculation Template

Deferred Outflows and Inflows

GASB 68 requires you to report deferred outflows and inflows in your financial statements. Deferred outflows and inflows are somewhat similar to depreciation in that a dollar amount is spread over a fixed period of time, beginning in the current measurement period using a systematic and rational method. The next steps will show the calculations of the deferred outflows and inflows and the related Deferred Outflows and Inflows Template that will show these amounts and the years that these numbers will be allocated over. GASB requires three items in the deferred outflows and inflows in pension expense calculation:

1) Differences in Experience (calculated in *Step 3)*
2) Differences in Assumptions (calculated in *Step 3*)
3) Differences between Expected and Actual Investment Returns (calculated in *Step 4*)

The deferred outflows and inflows spreadsheet is updated in *Step 5*.

Step 3: Calculate the Recognition of Experience & Assumption Changes

This calculation will be used in the pension expense calculation shown in *Step 6*.

Example

		Experience	Assumptions
Amount Located on the annual actuarial valuation GASB 68 page	(a)	$16,435	
Years to amortize Located on the annual actuarial valuation GASB 68 page	(b)	8	8
Calculated amount	**(a) / (b)**	**$2,054**	
Amount to be deferred*		**$14,381**	

**Note these amounts will need to be recorded as a journal entry in Step 7 on page 12.*

Click to Open Experience & Assumption Change Template

Step 4: Calculate the Projected Investment Return & Recognition of Investment Gain or Loss

Net Investment Income Projections

	Amount (a)	Time Period* (b)	***Interest (c)	Calculation (a) x (b) x (c)
Beginning of year Fiduciary Net Position Located on Statement of Fiduciary Net Position	$16,983,316	1.0	0.08	$1,358,665
Employer Contributions Located on Statement of Fiduciary Net Position	248,931	0.5	0.08	9,957
Employee Contributions Located on Statement of Fiduciary Net Position	62,918	0.5	0.08	2,517
Benefit Payments Located on Statement of Fiduciary Net Position	(110,816)	0.5	0.08	(4,433)
Employee Refunds, if any Located on Statement of Fiduciary Net Position	0	0.5	0.08	0
Administrative Expenses Located on Statement of Fiduciary Net Position	(41,218)	0.5	0.08	(1,649)
Projected Net Investment Income				**$1,365,058**
Actual Net Investment Income for the year** Located on Statement of Fiduciary Net Position				**1,438,050**
Excess (Deficit) Investment returns Difference between Projected Net Investment Income and Actual Net Investment Income for the year				**72,992**
Excess (Deficit) Investment returns to allocate for year				**14,598**
Remaining excess/(deficit) investment returns to allocate Excess (Deficit) Investment returns divided by 5 (returns are always allocated for 5 years)				**58,394**

** A half year is used because, generally, employer and employee contributions, pension payments, and administrative expenses are spread throughout the year.*

***In some years, the actual net investment income amount will be positive or negative depending on market conditions.*

****Note for 2016 and the 2017 rollforwards, the discount rate is 8.00%.*

Click to open *Investment Income Template*

Step 5: Update the Deferred Outflows and Inflows Spreadsheet

You will need to maintain this schedule for subsequent years' deferrals. There are different dollar amounts that will come from the actuary each year and those amounts will be seen in the GASB 68 section of your annual actuarial valuation as calculated in *Step 3*. These amounts are calculated over the remaining service lives of the members, also seen in the GASB 68 section of the annual actuarial valuation. In the case of net investment income returns above or below the expected investment return, the difference is recognized over a period of five years. The expected investment return is calculated in *Step 4*.

You will add to this spreadsheet an additional set of deferrals each year. We have shown the first year deferrals in the example below.

Deferred Outflows and Inflows Timeline (Layers) Related to Pension Expense Year 1 (**Note: The example is from Year 1.**)

	Total (O/I) to be Deferred	Amortization Years	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	Total
2015 Excess (Deficit) Investment Returns *Calculated in Step 4*	(125,814)	5	(25,163)	(25,163)	(25,163)	(25,163)	(25,162)						(125,814)
2016 Excess (Deficit) Investment Returns		5											
2017 Excess (Deficit) Investment Returns		5											
Increase/(decrease) in pension expense			(25,163)	(25,163)	(25,163)	(25,163)	(25,162)	0	0	0	0	0	(125,814)
2015 Differences in experience Located on annual actuarial valuation GASB 68 page *Calculated in Step 3*	104,807	8	13,101	13,101	13,101	13,101	13,101	13,101	13,101	13,100			104,807
2016 Differences in experience													0
2017 Differences in experience													0
Increase/(decrease) in pension expense			13,101	13,101	13,101	13,101	13,101	13,101	13,101	13,100	0	0	104,807
2015 Differences in assumptions Located on annual actuarial valuation GASB 68 page *Calculated in Step 3*	(135,344)	8	(16,918)	(16,918)	(16,918)	(16,918)	(16,918)	(16,918)	(16,918)	(16,918)			(135,344)
2016 Differences in assumptions													0
2017 Differences in assumptions													0
Increase/(decrease) in pension expense			(16,918)	(16,918)	(16,918)	(16,918)	(16,918)	(16,918)	(16,918)	(16,918)	0	0	(135,344)
Net increase (decrease) in pension expense			**(28,980)**	**(28,980)**	**(28,980)**	**(28,980)**	**(28,979)**	**(3,817)**	**(3,817)**	**(3,818)**	**0**	**0**	**(156,351)**

Differences in experience and assumptions are allocated out over the remaining service lives of active and inactive employees (can vary somewhat but usually consistent in years); These numbers and the service lives of the active and inactive employees are found in the GASB 68 section of the valuation.
Above dates are based on a measurement date of December 31st.
The annual actuarial valuations will add new layers each year. There will also be a yearly calculation of investment returns different from the expected returns.
Note: deferred inflows are recorded as negative amounts and deferred outflows are recorded as positive amounts.

Subsequent years are also shown for illustrative purposes to show how the different layers of deferrals are added to the example above.

Deferred Outflows and Inflows Timeline (Layers) Related to Pension Expense for Years 1, 2, and 3

	Total (O/I) to be Deferred	Amortization Years	2017	2018	2019	2020	2021	2022	2023	2024	Total
2015 Excess (Deficit) Investment Returns	(125,814)	5	**-25,163**	-25,163	-25,162						-75,488
2016 Excess (Deficit) Investment Returns	306,421	5	**61,284**	61,284	61,284	61,284					245,137
2017 Excess (Deficit) Investment Returns	(72,992)	5	**-14,598**	-14,598	-14,598	-14,598	-14,598				-72,992
Increase (decrease in pension expense)			**21,523**	21,523	21,524	46,686	-14,598	0	0	0	96,657
2015 Differences in experience	104,807	8	**13,101**	13,101	13,101	13,101	13,101	13,100			78,604
2016 Differences in experience	(55,620)	8	**-6,953**	-6,953	-6,953	-6,953	-6,953	-6,953	-6,949		-48,664
2017 Differences in experience	16,435	8	**2,054**	2,054	2,054	2,054	2,054	2,054	2,054	2,054	16,435
Increase (decrease in pension expense)			**8,203**	8,203	8,203	8,203	8,203	8,202	-4,895	2,054	46,375
2015 Differences in assumptions	(135,344)	8	**-16,918**	-16,918	-16,918	-16,918	-16,918	-16,918			-101,508
2016 Differences in assumptions	2,403,119	8	**300,390**	300,390	300,390	300,390	300,390	300,390	300,389		2,102,728
2017 Differences in assumptions											0
Increase (decrease in pension expense)			**283,472**	283,472	283,472	283,472	283,472	283,472	300,389	0	2,001,220
Net increase (decrease) in pension expense			**313,198**	**313,198**	**313,198**	**338,360**	**277,076**	**291,674**	**295,494**	**2,054**	**2,144,253**

Investment returns in excess of expected are allocated out over 5 years, see also Schedule 7 for the calculation of this amount.

Differences in experience and assumptions are allocated out over the remaining service lives of Active and Inactive employees (can vary somewhat but usually consistent in years); These numbers and the service lives of the active and inactive employee, are found in the GASB 68 section of the actuarial valuation.

Above dates are based on a measurement date of December 31st.

The actuarial valuations will add new layers each year. There will also be a yearly calculation of investment returns different from the expected returns that will be added each year.

Note: that deferred outflows are negative and deferred inflows are positive.

Click to Open Deferred Outflows and Inflows Timeline Template

Recording the Yearly Pension Expense

Pension expense is the difference in Net Pension Liability from the previous measurement date to the current measurement date, with some adjustments the calculations will take into account. Unlike prior years, your pension expense will no longer be the same as your required employer contributions.

The GASB 68 standard requires that pension expense calculations be performed and that journal entries be prepared.

Step 6: Calculate Pension Expense

Pension Expense Calculation as of Measurement Period 12/31/17

Service Cost Located on the annual actuarial valuation GASB 68 page	$393,416
Interest on Total Pension Liability - over measurement period See calculation from *Step 1*	1,856,907
Benefit Changes (If any. See also appendix.) Located on the annual actuarial valuation GASB 68 page	0
Recognition of Experience Changes See calculation from *Step 3**	8,203
Recognition of Assumption Changes See calculation from *Step 3**	283,472
Recognition of Investment Gain or Loss** See calculation from *Step 4*	21,523
Projected Investment Income See calculation from *Step 4*	(1,365,058)
Employee Contributions Located on Statement of Fiduciary Net Position	(62,918)
Administrative Expense Located on Statement of Fiduciary Net Position	41,218
Other Changes See calculation from *Step 2*	3
Total Pension Expense recognized	**$1,176,766**

Note: Employer contributions and benefit payments have NO direct impact on expense.

** Note: This is located on the Deferred Outflows and Inflows Table for year 2 (shown on page 10).*

***The value of the input will be the opposite of the amount you calculate in Step 4 (i.e. If investment returns were lower than projected, this number would be entered as a positive causing an increase in pension expense.)*

Click to open Pension Expense Template

Journal Entries for Pension Expense, Deferred Outflows and Inflows and Ending Balances

	Debit	Credit
Pension Expense		
See calculation from Step 6	1,176,766	
Net Pension Liability		1,176,766
Net Pension Liability	58,394	
Deferred inflow invest		58,394
Deferred inflow experience	14,381	
Net Pension Liability		14,381
Deferred Outflow assumptions	0	
Net Pension Liability		0

Click to Open Journal Entries Template

In 2016 deferred outflow/inflows were recorded to recognize a portion of the assumption changes, experience changes and differences between expected and actual investment returns that had not yet been expensed. At the time those amounts were adjusted as either a debit or credit to deferred outflow/inflows and an offset against net pension liability. In 2017 we will need to reclass a portion of those deferrals as follows:

Deferred inflow investments (2015)	25,163	
Deferred inflow investments (2016)		61,284
Deferred outflow experience (2015)		13,101
Deferred inflow experience (2016)	6,953	
Deferred inflow assumptions (2015)	16,918	
Deferred outflow assumptions (2016)		300,390
Net Pension Liability	325,741	

This entry is necessary to match the net pension liability amount calculated in Step 2 in 2017, tie to your trial balance and general ledger for 2017. These amounts are taken from the prior year's deferrals for 2016 on page 10. After all the entries are recorded, the ending balances would be as follows:

Balances at Fiscal Year End		
Net Pension Liability		
See Step 2		6,944,805
Deferred inflows investments		
See above	75,134	
Deferred outflows assumptions		
See above	1,717,749	
Deferred outflows experience		
See above	38,171	

Note: This amount should match the amount calculated in Step 2

Reconciliation of Net Pension Liability*

Beginning Net Pension Liability	$6,386,724
Pension Expense for current year	1,176,766
Deferred outflows investments current year	-58,394
Deferred inflows experience current year	14,381
Deferred outflows assumptions current year	0
Journal entry needed for previous years deferrals	-325,741
Rounding	-1
Employer Contributions	-248,931
Ending Net Pension Liability	$6,944,804
Actual Net Pension Liability from Step 2	6,944,804
Difference	0

**Note: This schedule is optional and is designed to help you reconcile your net pension liability. It is not requred for either your financial statements or notes.*

Click to open Reconciliation of Net Pension Liability Template

NOTE DISCLOSURES

Note disclosures are required by GASB to help explain the pension plan and Net Pension Liability calculations associated with the plan. These are rather significant and will involve many of the templates that have been completed in previous steps as well as your annual actuarial valuation.

Below are examples of note disclosures that you can customize and then copy and paste into your financial statements.

Summary of Significant Accounting Policies

Pensions. For purposes of measuring the Net Pension Liability, deferred outflows of resources and deferred inflows of resources related to pensions, and pension expense, information about the fiduciary net position of the Municipal Employees Retirement System (MERS) of Michigan and additions to/deductions from MERS' fiduciary net position have been determined on the same basis as they are reported by MERS. For this purpose, benefit payments (including refunds of employee contributions) are recognized when due and payable in accordance with the benefit terms. Investments are reported at fair value.

Instructions

Copy and paste

General Information about the Pension Plan

Plan Description. The employer's defined benefit pension plan provides certain retirement, disability and death benefits to plan members and beneficiaries. The employer participates in the Municipal Employees Retirement System (MERS) of Michigan. MERS is an agent multiple-employer, statewide public employee pension plan established by the Michigan Legislature under Public Act 135 of 1945 and administered by a nine member Retirement Board. MERS issues a publicly available financial report that includes financial statements and required supplementary information. This report may be obtained accessing the MERS website at *www.mersofmich.com*.

Copy and paste

Benefits Provided

Table 2

01 – Example Division

	2016 Valuation
Benefit Multiplier:	2.25% multiplier (80% max)
Normal Retirement Age:	60
Vesting:	6 years
Early Retirement (Unreduced)	55/30
Early Retirement (Reduced)	50/25
	55/15
Final Average Compensation	3 years
COLA for Future Retirees	2.50% (non-compound)
Member Contributions	4%
Act 88:	Yes (adopted 9/24/1996)

There are several ways to present this data.

Option 1)

Copy Table 2 from your annual valuation.

Benefits provided include plans with multipliers ranging from [ ] to [ ].

Vesting periods range from [ ] to [ ] years.

Normal retirement age is 60 with early retirement at [ ] with [ ] years of service

Final average compensation is calculated based on [ ] years. Member contributions range from [ ] to [ ].

Option 2)

If you have many divisions you can summarize the benefit provisions.

Employees covered by benefit terms. At the December 31st [ ] valuation date, the following employees were covered by the benefit terms:

Inactive employees or beneficiaries currently receiving benefits	[ ]
Inactive employees entitled to but not yet receiving benefits	[ ]
Active employees	[ ]
	[ ]

Refer to the GASB 68 section of the annual valuation report for membership summary numbers.

If the pension plan is closed to new employees, the employer should disclose this fact, as required by paragraph 40b of GASB 68.

Contributions. The employer is required to contribute amounts at least equal to the actuarially determined rate, as established by the MERS Retirement Board. The actuarially determined rate is the estimated amount necessary to finance the cost of benefits earned by employees during the year, with an additional amount to finance any unfunded accrued liability. The employer may establish contribution rates to be paid by its covered employees.

You will need to enter the contribution rates (in dollars or as a percentage of covered payrolls) made during the reporting period, then copy and paste.

Employer contributions range from [ ] to [ ] based on annual payroll for open divisions. One division that is closed to new employees has an annual employer contribution amount of [ ].

Net Pension Liability. The employer's Net Pension Liability was measured as of December 31, [ ], and the total pension liability used to calculate the Net Pension Liability was determined by an annual actuarial valuation as of that date.

Enter the date of the annual valuation, then copy and paste.

Actuarial assumptions. The total pension liability in the December 31, [ ] annual actuarial valuation was determined using the following actuarial assumptions, applied to all periods included in the measurement:

Enter the date of the annual valuation, then copy and paste. Assumptions can change annually, so be sure to update this section each year.

Inflation: 2.5%

Salary Increases: 3.75% in the long-term

Investment rate of return: 7.75%, net of investment expense, including inflation

Although no specific price inflation assumptions are needed for the valuation, the 2.5% long-term wage inflation assumption would be consistent with a price inflation of 3%-4%.

Mortality rates used were based on the RP-2014 Group Annuity Mortality Table of a 50% Male and 50% Female blend.

The actuarial assumptions used in valuation were based on the results of the most recent actuarial experience study of 2009-2013.

The long-term expected rate of return on pension plan investments was determined using a model method in which the best-estimate ranges of expected future real rates of return (expected returns, net of investment and administrative expenses and inflation) are developed for each major asset class. These ranges are combined to produce the long-term expected rate of return by weighting the expected future real rates of return by the target asset allocation percentage and by adding expected inflation. The target allocation and best estimates of geometric real rates of return for each major asset class are summarized in the following table:

If the employer includes an ad hoc post-employment benefit change (commonly referred to as COLA) that information needs to be disclosed. Note that this applies to very few employers, and MERS has contacted them directly.

Asset Class	Target Allocation	Target Allocation Gross Rate of Return	Long-Term Expected Gross Rate of Return	Inflation Assumption	Long-Term Expected Real Rate of Return
Global Equity	55.5%	8.65%	4.80%	2.50%	3.41%
Global Fixed Income	18.5%	3.76%	0.70%	2.50%	0.24%
Private Investments	26.0%	8.65%	2.25%	2.50%	1.60%
TOTAL	**100.0%**		**7.75%**		**5.25%**

Discount rate. The discount rate used to measure the total pension liability is 8.0%. The current discount rate shown for GASB 68 purposes is higher than the MERS assumed rate of return. This is because, for GASB 68 purposes, the discount rate must be gross of administrative expenses, whereas for funding purposes, it is net of administrative expenses. The projection of cash flows used to determine the discount rate assumes that employer and employee contributions will be made at the rates agreed upon for employees and the actuarially determined rates for employers. Based on these assumptions, the pension plan's fiduciary net position was projected to be available to pay all projected future benefit payments of current active and inactive employees. Therefore, the long-term expected rate of return on pension plan investments was applied to all periods of projected benefit payments to determine the total pension liability.

Changes in Net Pension Liability

Insert table from Step 2

Calculating the Net Pension Liability			
Changes in Net Pension Liability	Increase (Decrease)		
Balances at 12/31/16	Total Pension Liability (a)	Plan Fiduciary Net Position (b)	Net Pension Liability (a) - (b)
Changes for the Year			
Service Cost			
Interest on Total Pension Liability			
Changes in benefits			
Difference between expected and actual experience			
Changes in assumptions			
Employer Contributions			
Employee Contributions			
Net investment Income			
Benefit payments, including employee refunds			
Administrative expense			
Other changes			
Net changes			
Balances as of 12/31/17			

Sensitivity of the Net Pension Liability to changes in the discount rate. The following presents the Net Pension Liability of the employer, calculated using the discount rate of 8.0% as well as what the employer's Net Pension Liability would be using a discount rate that is 1 percentage point lower (7.0%) or 1% higher (9.0%) than the current rate.

You will need to do this calculation. Total Pension Liability and current discount rate are located on the GASB 68 page of your annual actuarial valuation, and your Fiduciary Net Position is located on your Statement of Fiduciary Net Position.

	1% Decrease 7.0%	Current Discount Rate 8.0%	1% Increase 9.0%
Net Pension Liability at 12/31/17 From *Step 2 Excel Calculation*		6,944,804	
Change in Net Pension Liablity (NPL) *From actuarial valuation GASB 68 page*	520,260		-430,874
Calculated NPL for your Notes	$7,465,064	$6,944,804	$6,513,930

Note: The current discount rate shown for GASB 68 purposes is higher than the MERS assumed rate of return. This is because for GASB purposes, the discount rate must be gross of administrative expenses, whereas for funding purposes, it is net of administrative expenses.

Click to Open Sensitivity to Changes in Discount Rate Template

Pension Expense and Deferred Outflows of Resources and Deferred Inflows of Resources Related to Pensions

For the year ended [ ] the employer recognized pension expense of [ ]. The employer reported deferred outflows and inflows of resources related to pensions from the following sources:

	Deferred Outflows of Resources	Deferred Inflows of Resources
Differences in experience	$	$
Differences in assumptions	$	$
Excess (Deficit) Investment Returns	$	$
Contributions subsequent to the measurement date*	$	$
Total	$	$

*The amount reported as deferred outflows of resources resulting from contributions subsequent to the measurement date will be recognized as a reduction in the Net Pension Liability for the year ending [ ].

Amounts reported as deferred outflows and inflows of resources related to pensions will be recognized in pension expense as follows:

Year ended	
2018	[ ]
2019	[ ]
2020	[ ]
2021	[ ]
2022	[ ]
Thereafter	[ ]

Required Supplementary Information

Required supplementary information schedules are required with GASB 68. The Schedule of Employer Contributions shows the employer's required annual contributions from the annual actuarial valuation, compared with the actual contributions remitted over the past ten years. This schedule can be filled out prospectively but many employers will have the information from prior years.

The Schedule of Changes In Employer's Net Pension Liability and Related Ratios shows the changes in total pension liability less the statement of changes in fiduciary net position resulting in the Net Pension Liability calculation for the employer. There are ratios calculated, as well, involving covered employee payrolls. Note that this is a 10 year schedule prospectively.

- Schedule of Changes in Employer's Net Pension Liability and Related Ratios
- Schedule of Employer Contributions

Enter your fiscal year end and pension expense (calculated in *Step 6*).

Then using the numbers you calculated in *Step 5* complete the table of deferred outflows and inflows.

EXAMPLE based on implementation guide*

	Deferred Outflows of Resources	Deferred Inflows of Resources
Differences in experience**	$38,173	
Differences in assumptions**	1,717,748	
Excess (Deficit) Investment Returns**	75,134	
Contributions subsequent to the measurement date***		
Total	**$1,831,055**	**0**

Year ended		
	2018	313,198
	2019	313,198
	2020	338,360
	2021	277,076
	2022	291,674
	Thereafter	297,549

* Your numbers will vary. This is only meant as an illustration. These numbers come from the timeline on page 10.

** Note that these 3 numbers will figure into pension expense in the years from 2018 through 2022 and thereafter.

*** Note that this number will ***not*** figure into pension expense calculation in the years to come.

Click to Open Schedule of Changes in Employer's NPL

Click to Open Schedule of Employer Contributions

APPENDIX DISCUSSION FOR GASB 68

PRIMARY GOVERNMENTS AND COMPONENT UNITS

The subject of allocation of the Net Pension Liability when component units are involved is one that needs to be addressed by each individual municipality's management and discussed with their auditors. The allocation of the Net Pension Liability can be done by several methods. One could be by divisional liability if that liability is broken out in the actuarial valuation. Another method could be by employee covered payroll, a third could be by employer contributions, or even another method that is applicable to the individual municipality's situation. These considerations must be weighed in the context of the municipality's circumstances. Paragraphs 18 and 39 in the GASB 68 Standard may supply additional information as well as paragraphs 33-35 in the GASB 68 Implementation Guide available at *www.gasb.org.*

EMPLOYERS WITH MORE THAN ONE DEFINED BENEFIT PLAN OUTSIDE OF MERS

If an employer participates with MERS Defined Benefit plan and also has another defined benefit plan that is separate from MERS (possibly an Act 345 plan) with a different measurement date than MERS December 31st measurement date, that second Net Pension Liability can be combined with the MERS Net Pension Liability as long as both plans' measurement dates fall within the employer's fiscal year. As an example, the City participates with MERS with a measurement date of December 31st, and a separate public safety plan with a March 31st year end. The City has a December 31st year end, both MERS and the 2nd plan may be combined for financial statement purposes as long as both dates are no earlier than the end of the employer's prior fiscal year. Notes Disclosure and Required Supplementary Information can be found in Paragraphs 21, and 38-45 in the GASB 68 Standard as well as paragraph 38 in the GASB 68 Implementation Guide available at *www.gasb.org.*

If you are a non-MERS municipality you will need to enter your plan's discount rate.

BLENDED DISCOUNT RATE

There are very few employers for whom the blended discount rate will apply. These employers will be contacted directly by MERS concerning their management of the total pension liability. For the vast majority of members in MERS this section will not apply to them.

BENEFIT CHANGES UNDER GASB 68 EFFECTIVE FOR 2016 AND 2017 ROLL FORWARDS

Benefit changes made by municipalities require a supplemental valuation to be prepared and then adopted by the local government's governing body. In most cases the benefit change occurs during the year and the actuary reflects it with the actuarial valuation that is done at the end of the year. For those benefit changes adopted with an effective date in 2016, an adjustment is necessary to be made to the GASB 68 information provided in your annual actuarial valuation due to the actuarial processes that were conducted for GASB 68 implementation. If a benefit change is effective after the measurement date of December 31, 2016, in the actuarial valuation used in the calculation of the municipality's net pension liability, and you are not rolling your NPL calculation forward to 2017, no adjustment is necessary, rather the prospective benefit changes will be picked up in the next actuarial valuation and pension expense will then be adjusted accordingly on the December 31, 2017 valuation.

The adjustment process needed to be taken will depend on if the new benefit is reflected in the 2016 AAV or not. (If you are not sure if a benefit change is reflected in the actuarial valuation please check Benefit Provisions Table 2 or the section titled "Benefit Provision History" in the actuarial valuation, these sections show benefit changes and when they were effective.)

If the newly adopted benefits are ***not included*** in the 2016 AAV and you are not rolling forward to 2017, see Process A. If the newly adopted benefits ***are*** included in the 2016 AAV and you ***are rolling*** forward to 2017, please see Process B. If the newly adopted benefits are ***not included*** in the 2016 AAV and you ***are rolling*** forward to 2017, see Process C.

Process A: (Not rolling forward to 2017)

For benefits adopted with an effective date in 2016 and were NOT reflected in the 2016 AAV results, an adjustment will need to be made to the total pension liability as of 12/31/16 as shown in the following step. (An example would be a retroactive benefit change with an ***effective*** date of October 1st 2016 that is not signed until August 2017. The actuarial valuation measurement date while dated December 31, 2016, does ***not*** reflect the new benefit change as the 2016 actuarial valuation was prepared before the contract was signed in August 2017 in our example. If you are not sure if a benefit change is reflected in the actuarial valuation please check the section titled "Benefit Provision History" in the back section of the valuation, this shows benefit changes and when they were effective.)

Example of adjustment needed for 2016 Benefit Change *not* reflected in 2016 valuation

(a)	Change in benefits		-359,219	From Supplement Valuation
	AAL	12/31/2016	7,529,745	Total Actuarial Accrued Liability from Table 6 in 2016 valuation
(b)	New AAL		7,170,526	
(c)	TPL	12/31/2016	7,336,107	Total Pension Liability (TPL) as of 12/31/16 from GASB 68 page in 2016 actuarial valuation
(a/b)*c	Change in Expense/TPL		-367,514	You will adjust the 2016 Total Pension Liability by this amount and also record this amount as a change in total pension liability due to benefit changes

If you choose to make this adjustment for 2016, you will need to make adjustments in the following year as the benefit change will be picked up in the 2017 actuarial valuation and this should not be double counted. (The actuary will not have adjusted the 2016 total pension liability so your ending 2016 total pension liability will be different from what the actuary has for 2016 in the GASB 68 page of the 2017 actuarial valuation.)

Process B: (Rolling forward to 2017)

For benefits adopted with an effective date in 2016 and reflected in the 2016 AAV results and you are rolling forward to 2017, no adjustment will need to be made to the total pension liability as of 12/31/16 as the actuary has already included the change in liabilities with the 2017 roll forward numbers.

Process C: (Rolling forward to 2017)

For benefits adopted with an effective date in 2016 and were NOT reflected in the 2016 AAV results, an adjustment will need to be made to the total pension liability as of 12/31/16 and 12/31/17 as shown in the following step. (An example would be a retroactive benefit change with an effective date of October 1st 2016 that is not signed until August 2017. The actuarial valuation measurement date while dated December 31, 2016, does not reflect the new benefit change as the 2016 actuarial valuation was prepared before the contract was signed in August 2017 in our example. If you are not sure if a benefit change is reflected in the actuarial valuation please check the section titled "Benefit Provision History" in the back section of the valuation, this shows benefit changes and when they were effective.)

Example of adjustment needed for 2016 Benefit Change *not* reflected in 2016 valuation

(a)	Change in benefits		-359,219	From Supplement Valuation
	AAL	12/31/2016	7,529,745	Total Actuarial Accrued Liability from Table 6
(b)	New AAL		7,170,526	
(c)	TPL	12/31/2016	7,336,107	Total Pension Liability (TPL) as of 12/31/16 from GASB 68 page in 2016 actuarial valuation
(a/b)*c	Change in Expense/TPL		-367,514	You will need to adjust the 2016 and 2017 Total Pension Liability by this amount and also record this amount as a change in total pension liability due to benefit changes for both years

If you choose to make this adjustment for 2016 and 2017, you will need to make adjustments in the following year as the benefit change will be picked up in the 2017 actuarial valuation and this should not be double counted. (The actuary will not have adjusted the 2016 total pension liability so your ending 2016 total pension liability will be different from what the actuary has for 2016 in the GASB 68 page of the 2017 actuarial valuation.)

This publication contains a summary description of MERS benefits, policies or procedures. MERS has made every effort to ensure that the information provided is accurate and up to date as of 2/7/2020. Where the publication conflicts with the relevant Plan Document, the Plan Document controls. MERS, as a governmental plan, is exempted by federal and state law from registration with the SEC. However, it employs registered investment advisors to manage the trust fund in compliance with Michigan Public Employee Retirement System Investment Act. Past performance is not a guarantee of future returns. Please make independent investment decisions carefully and seek the assistance of independent experts when appropriate.

MERS®
Municipal Employees' Retirement System

PUB 6103 2020-02-07