



GASB 68 IMPLEMENTATION GUIDE

For plans with fiscal years ending
December 31, 2015

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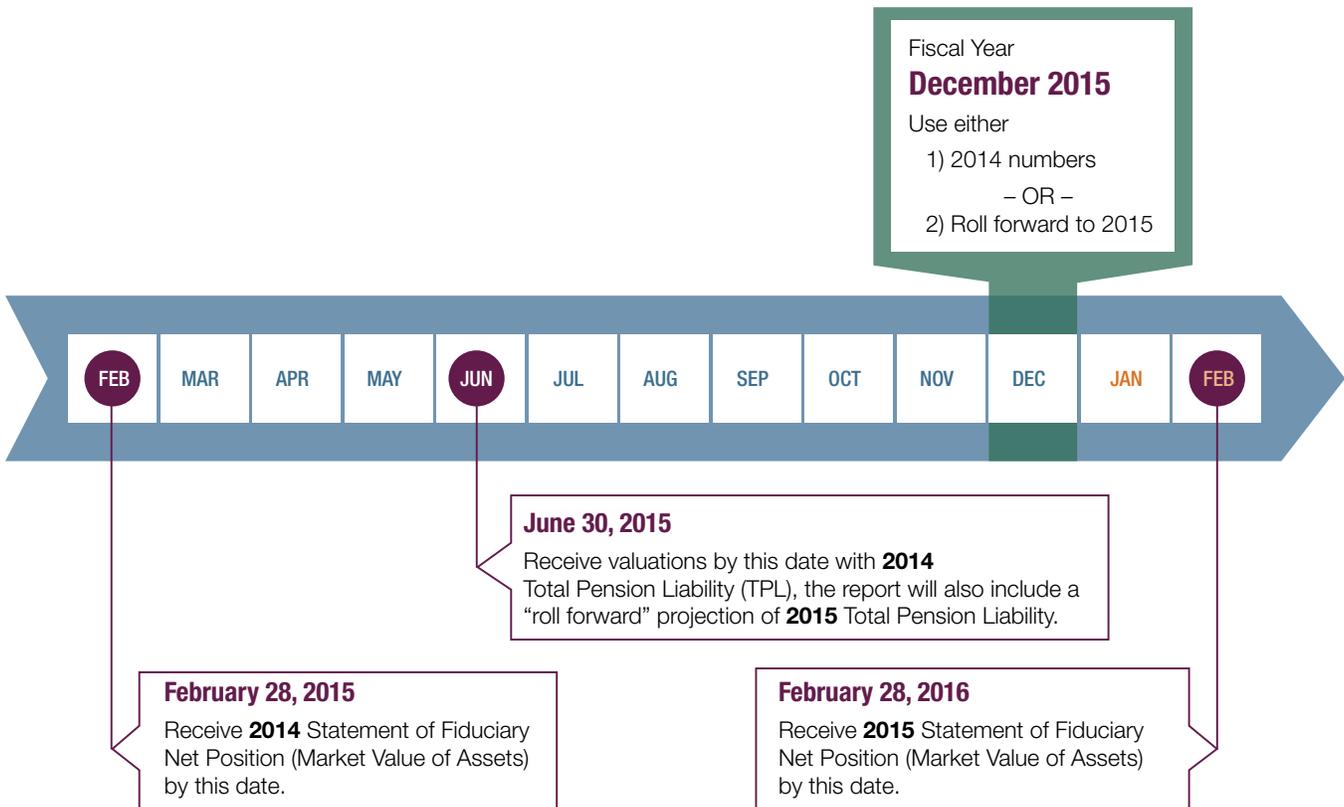
OVERVIEW & TIMELINE

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, 2015 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 2015 numbers. You could use 2014 numbers, if so you will have to use the December 2014 Actuarial Valuation and December 2014 Statement of Financial Position, and follow the attached examples. The December 2014 valuation will have both 2014 and 2015 Total Pension Liability (TPL) numbers to allow you to roll forward to December 2015 to complete the recording of your NPL. You will also need the December 31, 2015, Statement of Fiduciary Net Position from MERS which you will receive in early February 2016. 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, 2014. This applies only to those employers with fiscal years that end in December. If you choose to roll forward to December 2015, 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

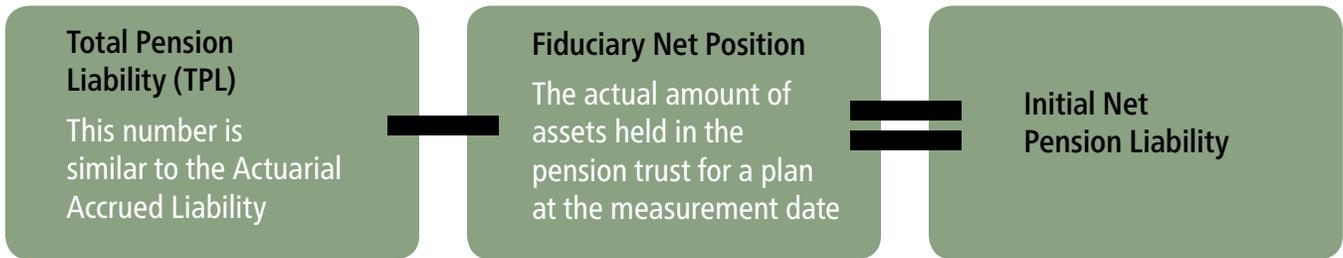
for Fiscal Years Ending December 31, 2015



Recording Your Initial 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 need to record the initial Net Pension Liability, which is calculated by taking the December 31st Total Pension Liability and subtracting the December 31st Market Value of Assets.

- Total Pension Liability will be supplied by the actuary in the GASB 68 information section of your 2014 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, 2014. MERS will email this report in February of each year, see Figure 2.

See the example below on how to record the initial journal entry on your general ledger and financial statements.

The following entry is shown to reflect the initial Net Pension Liability in your financial statements. GASB 68 requires that this number be reported in your financial statements. How it is to be reported will depend on your municipality's financial organization and accounting structure. You may wish to discuss with your auditor on how to record this number on your financial statements.

Figure 2.

The following entry will apply to many municipalities, but again, how it is recorded is unique to your municipality's organization, structure and situation, and may require consulting with your auditor.

	Debit	Credit
Total Net Position	3,244,396	
Net Pension Liability		3,244,396

This initial entry will only be recorded once in your accounting system and is not part of a monthly or yearly pension expense. We recommend this be recorded as of the first date of your fiscal year, where practical. 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 <i>Located on annual actuarial valuation GASB 68 page</i>	\$17,648,024	1.0	0.08	\$1,411,842
Service Cost <i>Located on annual actuarial valuation GASB 68 page</i>	207,513	0.5	0.08	8,301
Benefit Payments <i>Located on MERS Statement of Fiduciary Net Position</i>	(104,397)	0.5	0.08	(4,176)
Employee Refunds, if any <i>Located on MERS Statement of Fiduciary Net Position</i>	0	0.5	0.08	0
Interest on Total Pension Liability				\$1,415,967

* 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 2014 and 2015, the discount rate is 8.25%; for 2016 and the example above, it will be 8.00%.

Note: The interest is calculated over the measurement period for the year ending December 31, 2015

[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. Net Pension Liability will be recorded on the financial Statement of Net Position (balance sheet).

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 12/31/14			
Total Pension Liability is found in the annual actuarial valuation on the GASB 68 page & Plan Fiduciary Net Position is found on the 2014 MERS Plan Fiduciary Net Position	\$17,648,024	\$14,403,628	\$3,244,396*
Changes for the Year			
Service Cost Located on the annual actuarial valuation GASB 68 page	207,513		207,513
Interest on Total Pension Liability <i>Calculated in Step 1</i>	1,415,967		1,415,967
Changes in benefits (If any. See also appendix.) Located on the annual actuarial valuation GASB 68 page	12,729		12,729
Difference between expected and actual experience** Located on the annual actuarial valuation GASB 68 page	104,807		104,807
Changes in assumptions Located on the annual actuarial valuation GASB 68 page	(135,344)		(135,344)
Employer Contributions Located on the MERS Statement of Fiduciary Net Position		218,000	(218,000)
Employee Contributions Located on the MERS Statement of Fiduciary Net Position		60,114	(60,114)
Net investment income Located on the MERS Statement of Fiduciary Net Position		1,283,507	(1,283,507)
Benefit payments, including employee refunds Located on the MERS Statement of Fiduciary Net Position	(104,397)	(104,397)	0
Administrative expense Located on the MERS Statement of Fiduciary Net Position		(38,652)	38,652
Other changes***	140		140
Net changes	1,501,415	1,418,572	82,843
Balances as of 12/31/15			
Total Pension Liability is found in the annual actuarial valuation on the GASB 68 page & Plan Fiduciary Net Position is found on the 2015 MERS Plan Fiduciary Net Position	\$19,149,439	\$15,822,200	\$3,327,239

*Note: this number is the initial Net Pension Liability and should match the number calculated on page 4.

**Note: For the first year, this will likely be zero (0).

***Other changes is an amount necessary to reconcile the 12/31/15 Total Pension Liability number from the GASB 68 section of the valuation (\$19,149,439 in this example) with the numbers calculated above. The \$19,149,439 figure is inputted from the Actuarial Valuation GASB 68 page, and the Other Change is calculated. The Other Change number will vary from year to year, but is necessary to get the total pension liability number supplied by the actuary to tie out.

[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)	\$104,807	(\$135,344)
Years to amortize			
Located on the annual actuarial valuation GASB 68 page	(b)	8	8
Calculated amount	(a) / (b)	\$13,101	(\$16,918)

[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	\$14,403,628	1.0	0.08	\$1,152,290
Employer Contributions Located on Statement of Fiduciary Net Position	218,000	0.5	0.08	8,720
Employee Contributions Located on Statement of Fiduciary Net Position	60,114	0.5	0.08	2,405
Benefit Payments Located on Statement of Fiduciary Net Position	(104,397)	0.5	0.08	(4,176)
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	(38,652)	0.5	0.08	(1,546)
Projected Net Investment Income				\$1,157,693
Actual Net Investment Income for the year** Located on Statement of Fiduciary Net Position				1,283,507
Excess (Deficit) Investment returns Difference between Projected Net Investment Income and Actual Net Investment Income for the year				125,814
Excess (Deficit) Investment returns to allocate for year Excess (Deficit) Investment returns divided by 5 (returns are always allocated for 5 years)				25,163

* A half year is generally used because 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.

[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

	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 <small>Located on annual actuarial valuation GASB 68 page</small> 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 <small>Located on annual actuarial valuation GASB 68 page</small> 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 measurement date, not necessarily the fiscal year.

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 2 and 3

	Total (O/I) to be Deferred	Years	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	Total
2015 Excess Investment returns (inflow)	(125,814)	5	(25,163)	(25,163)	(25,163)	(25,163)	(25,162)							(125,814)
2016 Deficit Investment returns (outflow)	146,589	5		29,318	29,318	29,318	29,318	29,317						146,589
2017 Excess Investment returns (inflow)	(19,405)	5			(3,881)	(3,881)	(3,881)	(3,881)	(3,881)					(19,405)
2018 Excess/Deficit Investment returns		5												0
Increase (decrease in pension expense)			(25,163)	4,155	274	274	275	25,436	(3,881)	0	0	0	0	
2015 Differences in experience (outflow)	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 (outflow)	57,944	8		7,243	7,243	7,243	7,243	7,243	7,243	7,243	7,243			57,944
2017 Differences in experience (inflow)	(14,608)	9			(1,623)	(1,623)	(1,623)	(1,623)	(1,623)	(1,623)	(1,623)	(1,623)	(1,624)	(14,608)
2018 Differences in experience														0
Increase (decrease in pension expense)			13,101	20,344	18,721	18,721	18,721	18,721	18,721	18,720	5,620	(1,623)	(1,624)	
2015 Differences in assumptions (inflow)	(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 (outflow)	18,323	8		2,290	2,290	2,290	2,290	2,290	2,291	2,291	2,291			18,323
2017 Differences in assumptions (outflow)	22,801	9			2,533	2,533	2,533	2,533	2,533	2,534	2,534	2,534	2,534	22,801
2018 Differences in assumptions														0
Increase (decrease in pension expense)			(16,918)	(14,628)	(12,095)	(12,095)	(12,095)	(12,095)	(12,094)	(12,093)	4,825	2,534	2,534	
Net increase (decrease) in pension expense	55,293		(28,980)	9,871	6,900	6,900	6,901	32,062	2,746	6,627	10,445	911	910	55,293

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 measurement date of December 31st, not necessarily the fiscal year.

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. The previous GASB pension standard 27 required the annual pension contributions made to the plan be recorded as the pension expense on the financial statements. The new standard, GASB 68, requires a different calculation and will require different journal entries to be prepared, including calculations of deferred outflows and inflows.

Step 6: Calculate Pension Expense

Pension Expense Calculation as of Measurement Period 12/31/15

Service Cost Located on the annual actuarial valuation GASB 68 page	\$207,513
Interest on Total Pension Liability - over measurement period See calculation from Step 1	1,415,967
Benefit Changes (If any. See also appendix.) Located on the annual actuarial valuation GASB 68 page	12,729
Recognition of Experience Changes See calculation from Step 3	13,101
Recognition of Assumption Changes* See calculation from Step 3	(16,918)
Recognition of Investment Gain or Loss See calculation from Step 4	(25,163)
Projected Investment Income See calculation from Step 4	(1,157,693)
Employee Contributions Located on Statement of Fiduciary Net Position	(60,114)
Administrative Expense Located on Statement of Fiduciary Net Position	38,652
Other Changes See calculation from Step 2	140
Total Pension Expense recognized	\$428,214

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

*Note: For the first year, this will likely be zero (0).

[Click to Open Pension Expense Template](#)

Step 7: Prepare Journal Entries

The following journal entries are shown to assist you in the preparation of your financial statements.

Employer contributions will be recorded against the Net Pension Liability through the measurement date of December 31st. You can locate the amount of employer contributions on the MERS Statement of Plan Fiduciary Net Position that is emailed to you in February of each year. Benefit payments made by MERS to retirees and refunds of employee contributions to terminated employees require no direct journal entry for calculating pension expense.

It is probable that you will have a payable at year-end to MERS for the final fiscal month that will be paid in the first month of the following fiscal year. This payable for employer and employee contributions will be similar to a regular vendor payable at year-end.

Example: The following example is based on a December 31st fiscal year end date.

	Debit	Credit
Pension Expense <i>See calculation from Step 6</i>	428,214	
Net Pension Liability		428,214
Net Pension Liability Excess (Deficit) Investment Returns that was Calculated in Step 4, minus one year of expense of (\$25,163)	100,651	
Deferred Inflow		100,651
Deferred Outflow Differences in experience, located on annual actuarial valuation GASB 68 page, minus one year of expense \$13,101	91,706	
Net Pension Liability		91,706
Net Pension Liability Differences in assumptions, located on annual actuarial valuation GASB 68 page, minus one year of expense (\$16,918)	118,426	
Deferred Inflow		118,426
Net Pension Liability or Deferred Outflows Employer contributions, found in Statement of Fiduciary Net Position, for 1/1/2015 through 12/31/2015	218,000	
Pension expense or cash*		218,000
Balances at Fiscal Year End		
Net Pension Liability <i>See Step 2</i>		3,327,239
Deferred inflows investments <i>See above</i>		100,651
Deferred inflows assumptions <i>See above</i>		118,426
Deferred outflows experience <i>See above</i>	91,706	

*It is probable that in the first year of recording your NPL you may have likely paid your monthly contributions as a debit to Pension expense and a credit to cash. Since GASB 68 is recording the Pension expense calculation in Step 4, you will need to reclass those monthly contributions as a debit to either Deferred Outflows (or NPL if you are rolling forward) and a credit to Pension expense. (This avoids you having almost doubled pension expense.)

Subsequent entries for later years will be recorded as a debit to Deferred Outflows and a credit to Cash for those municipalities who are **not** rolling forward their NPL. Those who **are** rolling forward should record their monthly contributions as a debit to NPL and a credit to Cash.

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

[Click to Open Journal Entries 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.

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.

Benefits Provided

Table 2	
01 - Example Division	2013 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)

Instructions

Copy and paste

Copy and paste

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 [].

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	[]
	<u>[]</u>
	<u>[]</u>

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.

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.

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:

Inflation: 3%-4%

Salary Increases: 4.5% in the long-term (1%, 2% and 3% for calendar years 2014, 2015 and 2016, respectively)

Investment rate of return: 8.0%, net of investment expense, including inflation

Option 2)

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

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.

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.

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

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

Although no specific price inflation assumptions are needed for the valuation, the 4.5% long-term wage inflation assumption would be consistent with a price inflation of 3%-4%.

Mortality rates used were based on the 1994 Group Annuity Mortality Table of a 50% Male and 50% Female blend. For disabled retirees, the regular mortality table is used with a 10-year set forward in ages to reflect the higher expected mortality rates of disabled members.

The actuarial assumptions used in valuation were based on the results of the most recent actuarial experience study in 2008. (MERS Retirement Board is currently conducting an actuarial experience study covering the period from January 1, 2009, through December 31, 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 arithmetic real rates of return for each major asset class are summarized in the following table:

Asset Class	Target Allocation	Long-Term Expected Real Rate of Return
Global Equity	57.5%	5.02%
Global Fixed Income	20.0%	2.18%
Real Assets	12.5%	4.23%
Diversifying Strategies	10.0%	6.56%

Discount rate. The discount rate used to measure the total pension liability is 8.25%. 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.

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.

Changes in Net Pension Liability

Insert table from [Step 2](#)

Calculating the 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 12/31/14			
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 12/31/15			

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 8.25% as well as what the employer's Net Pension Liability would be using a discount rate that is 1 percentage point lower (7.25%) or 1% higher (9.25%) 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 7.25%	Current Discount Rate (8.25%)	1% Increase 9.25%
Net Pension Liability at 12/31/15 From <i>Step 2 Excel Calculation</i>		3,327,239	
Change in Net Pension Liability (NPL) <i>From actuarial valuation GASB 68 page</i>	487,401		-382,016
Calculated NPL for your Notes	\$3,814,640	\$3,327,239	\$2,945,223

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

2016	[]
2017	[]
2018	[]
2019	[]
2020	[]
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**	\$ -	\$118,426
Differences in assumptions**	91,706	-
Excess (Deficit) Investment Returns**		100,651
Total	\$91,706	\$219,077

Year ended	2016	-28,980
	2017	-28,980
	2018	-28,980
	2019	-28,979
	2020	-3,817
	Thereafter	-7,635

* Your numbers will vary. This is only meant as an illustration. These numbers come from the timeline on page 9.

** Note that these 3 numbers will figure into pension expense in the years from 2016 through 2020 and thereafter.

[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 2014 AND 2015 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 2014, 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, 2014 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 2015, 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, 2015 valuation.

The adjustment process needed to be taken will depend on if the new benefit is reflected in the 2014 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 included in the 2014 AAV and you are **not** rolling forward to 2015, please see Process A. If the newly adopted benefits are **not included** in the 2014 AAV and you are not rolling forward to 2015, see Process B. If the newly adopted benefits **are** included in the 2014 AAV and you **are rolling** forward to 2015, please see Process C. If the newly adopted benefits are **not included** in the 2014 AAV and you **are rolling** forward to 2015, see Process D.

Process A: (Not rolling forward to 2015)

For benefits adopted with an effective date in 2014 and reflected in the 2014 AAV results and you are not rolling forward to 2015, an adjustment will need to be made to the total pension liability as of 12/31/13 as shown in the following step:

Example of adjustment needed for 2013 Benefit Change reflected in 2014 valuation

(a)	Change in benefits	-17,400	From Supplement Valuation
	AAL 12/31/2013	<u>298,630</u>	Total Actuarial Accrued Liability from Table 6 in 2013 valuation
(b)	New AAL	281,230	
(c)	TPL 12/31/2013	297,314	Total Pension Liability (TPL) as of 12/31/13 from GASB 68 page in 2014 actuarial valuation
(a/b)*c	Change in TPL	-18,395	You will adjust the 2013 Total Pension Liability by this amount and record this amount as a change in pension expense in Step 6 of the Implementation Guide, note that the 2014 Total Pension Liability remains unchanged

Note that this process is only required for 2014 with the first year of implementation

Process B: (Not rolling forward to 2015)

For benefits adopted with an effective date in 2014 and were NOT reflected in the 2014 AAV results, an adjustment will need to be made to the total pension liability as of 12/31/14 as shown in the following step. (An example would be a retroactive benefit change with an **effective** date of October 1st 2014 that is not signed until August 2015. The actuarial valuation measurement date while dated December 31, 2014, does **not** reflect the new benefit change as the 2014 actuarial valuation was prepared before the contract was signed in August 2015 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 2014 Benefit Change not reflected in 2014 valuation

(a)	Change in benefits	-359,219	From Supplement Valuation
	AAL 12/31/2014	<u>7,529,745</u>	Total Actuarial Accrued Liability from Table 6 in 2014 valuation
(b)	New AAL	7,170,526	
(c)	TPL 12/31/2014	7,336,107	Total Pension Liability (TPL) as of 12/31/14 from GASB 68 page in 2014 actuarial valuation
(a/b)*c	Change in Expense/TPL	-367,514	You will adjust the 2014 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 2014, you will need to make adjustments in the following year as the benefit change will be picked up in the 2015 actuarial valuation and this should not be double counted. (The actuary will not have adjusted the 2014 total pension liability so your ending 2014 total pension liability will be different from what the actuary has for 2014 in the GASB 68 page of the 2015 actuarial valuation.)

Process C: (Rolling forward to 2015)

For benefits adopted with an effective date in 2014 and reflected in the 2014 AAV results and you are rolling forward to 2015, no adjustment will need to be made to the total pension liability as of 12/31/14 as the actuary has already included the change in liabilities with the 2015 roll forward numbers.

Process D: (Rolling forward to 2015)

For benefits adopted with an effective date in 2014 and were NOT reflected in the 2014 AAV results, an adjustment will need to be made to the total pension liability as of 12/31/14 and 12/31/15 as shown in the following step. (An example would be a retroactive benefit change with an effective date of October 1st 2014 that is not signed until August 2015. The actuarial valuation measurement date while dated December 31, 2014, does not reflect the new benefit change as the 2014 actuarial valuation was prepared before the contract was signed in August 2015 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 2014 Benefit Change *not* reflected in 2014 valuation

(a)	Change in benefits	-359,219	From Supplement Valuation
	AAL 12/31/2014	<u>7,529,745</u>	Total Actuarial Accrued Liability from Table 6
(b)	New AAL	<u>7,170,526</u>	
(c)	TPL 12/31/2014	7,336,107	Total Pension Liability (TPL) as of 12/31/14 from GASB 68 page in 2014 actuarial valuation
(a/b)*c	Change in Expense/TPL	-367,514	You will need to adjust the 2014 and 2015 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 2014 and 2015, you will need to make adjustments in the following year as the benefit change will be picked up in the 2015 actuarial valuation and this should not be double counted. (The actuary will not have adjusted the 2014 total pension liability so your ending 2014 total pension liability will be different from what the actuary has for 2014 in the GASB 68 page of the 2015 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 02/17/2016.. 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.

