



FRANKLIN REGIONAL RETIREMENT SYSTEM

FINANCIAL REPORTING AND DISCLOSURES UNDER

GASB 67 and GASB 68

as of

December 31, 2017

Prepared by:

KMS Actuarial, LLC
814 Elm Street, Suite 204
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August, 2018



August 13, 2018

Mr. Dale Kowacki
Executive Director
Franklin Regional Retirement System
278 Main Street, Suite 311
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Dear Dale:

We are pleased to present the enclosed report providing financial reporting and disclosures under Governmental Accounting Standards Board (GASB) Statement No. 67, Financial Reporting for Pension Plans (GASB 67), and GASB Statement No. 68, Accounting and Financial Reporting for Pensions (GASB 68) for the Franklin Regional Retirement System and participating employers as of December 31, 2017. Results are based on liabilities developed in an actuarial valuation performed as of January 1, 2018.

The Principal Valuation Results are provided in Section 1. The Notes to the Financial Statements and the Required Supplementary Information are provided in Sections 2 and 3, respectively. Employer Reporting Amounts Under GASB 68 are provided in Section 4. Finally, a Glossary of Terms is provided in Section 5.

The financial reporting and disclosures contained in this report are based on the member data provided by the Franklin Regional Retirement Board, asset information reported to the Public Employee Retirement Administration Commission (PERAC) by the Retirement Board and plan provisions contained in Chapter 32 of the Massachusetts General Laws. Although we did not audit the data used in the valuation and disclosure calculations, we believe that the information is complete and reliable.

Liabilities presented in this report are based on a long-term investment return rate of 7.75%, net of investment expense, compounded annually.

This report was completed in accordance with generally accepted actuarial standards and procedures, and conforms to the Code of Professional Conduct of the American Academy of Actuaries. The actuarial assumptions used in the determination of costs are reasonably related to the experience of the Plan and to reasonable expectations, and represent our best estimate of anticipated long-term experience under the Plan.

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Future actuarial valuation results may differ significantly from the current results presented in this report. Examples of potential sources of volatility include plan experience differing from that anticipated by the economic or demographic assumptions, the effect of new entrants, changes in economic or demographic assumptions, the effect of law changes and the delayed effect of smoothing techniques.

Our valuation follows generally accepted actuarial methods and we perform such tests as we consider necessary to assure the accuracy of the results. The amounts presented in this report have been appropriately determined according to the actuarial assumptions and methods stated herein.

This report is intended for the sole use of the Franklin Regional Retirement System and participating employers and is intended to provide information to comply with the stated purpose of the report. It may not be appropriate for other purposes.

The undersigned credentialed actuaries are Members of the American Academy of Actuaries and meet the Qualification Standards of the American Academy of Actuaries necessary to render the actuarial opinion contained herein. They are available to answer any questions with regard to this report.

Respectfully submitted,



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INTRODUCTION

GASB 67 and GASB 68

In June 2012, the GASB approved two related Statements that significantly change the way pension plans and governments account and report pension liabilities. The Franklin Regional Retirement System implemented GASB Statement No. 67, Financial Reporting for Pension Plans for the fiscal year ending December 31, 2014.

GASB 67 requires defined benefit pension plans, such as the Franklin Regional Retirement System, to present a statement of fiduciary net position (pension plan assets) and a statement of changes in fiduciary net position. Further, the statement requires that notes to financial statements include descriptive information such as the types of benefits provided, the classes of plan members covered and the composition of the pension plan's retirement board. Finally, GASB 67 requires pension plans to present in required supplementary information the sources of the changes in the net pension liability and information about the actuarially determined contributions compared with the actual contributions made to the plan and related ratios.

GASB 67 and GASB 68 require projected benefit payments be discounted to their actuarial present value using the single rate that reflects:

- (1) a long-term expected rate of return on pension plan investments *to the extent that the pension plan's assets are sufficient to pay benefits and pension plan assets are expected to be invested using a strategy to achieve that return and*
- (2) a tax-exempt, high-quality municipal bond rate *to the extent that the conditions for use of the long-term expected rate of return are not met.*

The pension plan's fiduciary net position was projected to be available to make all projected benefit payments of current plan members. 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.

GASB 68 establishes standards for measuring and recognizing liabilities, deferred outflows of resources, deferred inflows of resources and pension expense by state and local governments.

Net Fiduciary Position

Pension plan investments are reported at market value as of the measurement date. The fiduciary net position as of the current and prior measurement dates are shown in Exhibit 1.1.

INTRODUCTION

Total Pension Liability

The Total Pension Liability is based on liabilities developed in an actuarial valuation performed as of January 1, 2018.

Benefit Changes

Most benefit provisions remained the same from the prior measurement date, except the Board approved a 2% COLA on the first \$17,000 of annual allowance effective July 1, 2018.

Assumption Changes

Most actuarial assumptions and methods remained the same from the prior measurement date, except the disability and retirement rates were updated.

Pension Expense

The Pension Expense for the fiscal year ending December 31, 2017 is \$7,723,360 and is developed in Exhibit 4.2. Pension Expense, as well as the Net Pension Liability and Deferred Outflows of Resources and Deferred Inflows of Resources, are developed for each member unit and are shown in Appendix C. Amounts by employer are developed using a proportionate share, the proportion of each employer's contribution to the aggregate amount of employer contributions, as shown in Exhibit 4.3.

SECTION 1 - PRINCIPAL VALUATION RESULTS

Exhibit 1.1 - Plan Assets

Asset information was provided by the Franklin Regional Retirement System. The Trust Fund Composition, Asset Activity and the Computed Rate of Return for the current and prior fiscal years are as follows:

Fiscal Year Ended December 31	<u>2017</u>	<u>2016</u>
Trust Fund Composition at Fiscal Year-End		
Domestic Equity	\$ 52,363,129	\$ 47,185,900
International Equity	19,572,795	15,409,935
Emerging Markets Int'l Equity	5,341,383	3,942,209
Core Fixed Income	25,624,731	22,949,842
Value-Added Fixed Income	5,295,618	4,857,672
Real Estate	19,909,155	18,240,661
Timber/Natural Resources	2,366,684	2,105,563
Alternatives-Private Equity	6,662,018	6,373,907
Hedge Funds	5,884,020	4,886,280
Liquidating Portfolio and Portfolio Completion	137,294	898,297
Overlay	771,460	560,721
Cash	1,208,508	927,926
Other	(1,216,644)	(1,288,467)
Total Market Value of Assets	<u>\$ 143,920,151</u>	<u>\$ 127,050,446</u>
Asset Activity		
Market value as of beginning of year	\$ 127,050,446	\$ 118,210,146
Contributions - employer	6,166,761	5,875,820
Contributions - member	3,310,425	3,098,432
Net investment income	18,794,508	10,050,389
Benefit payments, including refunds of member contributions	(10,906,590)	(9,686,040)
Administrative expenses	(495,399)	(498,301)
Other	0	0
Market Value as of end of year	<u>\$ 143,920,151</u>	<u>\$ 127,050,446</u>
Money-Weighted Rate of Return	14.48%	8.24%
(Gain) / Loss on Pension Plan Investments		
Projected earnings	\$ 9,771,823	\$ 9,114,395
Actual earnings	18,794,508	10,050,389
(Gain) / Loss on pension plan investments	<u>\$ (9,022,685)</u>	<u>\$ (935,994)</u>

SECTION 1 - PRINCIPAL VALUATION RESULTS

Exhibit 1.2 - Actuarial Liabilities

The **Total Pension Liability**, developed using the Entry Age Normal funding method, is the portion of the actuarial present value of projected benefit payments that is attributed to past periods of member service. The Total Pension Liability as of January 1, 2018, the date of the most recent actuarial valuation, is presented below, along with the Total Pension Liability as of January 1, 2016, the date of the previous actuarial valuation:

<u>Valuation Date:</u>	<u>January 1, 2018</u>	<u>January 1, 2016</u>
Discount Rate	7.75%	7.75%
Actives	\$ 80,973,549	\$ 77,480,218
Retired and Disabled Members and Beneficiaries	104,762,494	90,277,914
Inactive Members	3,904,523	3,384,545
Total Pension Liability	\$ 189,640,566	\$ 171,142,677

The **Service Cost** is the portion of the actuarial present value of projected benefit payments that is attributed to a valuation year. Only active employees who have not reached Normal Retirement Age incur a Service Cost. Below is the Service Cost from the two most recent actuarial valuations and using a 7.75% discount rate:

Service Cost, beginning of year	\$ 5,063,237	\$ 4,833,029
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The Total Pension Liability as of December 31, 2017 was determined from an actuarial valuation as of January 1, 2018. The Total Pension Liability as of December 31, 2016 was determined from an actuarial valuation as of January 1, 2016 and rolled forward to the measurement date.

<u>Measurement Date:</u>	<u>December 31, 2017</u>	<u>December 31, 2016</u>
Discount Rate	7.75%	7.75%
Actives	\$ 80,973,549	\$ 88,692,523
Retired and Disabled Members and Beneficiaries	104,762,494	87,249,302
Inactive Members	3,904,523	3,646,847
Total Pension Liability	\$ 189,640,566	\$ 179,588,672
 Service Cost		 \$ 5,207,589

The Total Pension Liability increased during 2016 due to the increase in the COLA base from \$16,000 to \$17,000, the Erving Early Retirement Incentive (ERI) program and changes in assumptions. The Total Pension Liability decreased during 2017 due to a 2% COLA and increased during 2017 due to changes in the retirement and disability pre-retirement decrement rates, as shown below:

<u>Change in Total Pension Liability:</u>		
Assumption changes	\$ 180,697	\$ 5,736,511
Benefit changes	\$ (293,031)	\$ 1,003,761

SECTION 2 - NOTES TO THE FINANCIAL STATEMENTS

Exhibit 2.1 - Plan Description

Plan administration:

The Franklin Regional Retirement System (the "System") is a cost-sharing, multiple-employer defined benefit pension plan that provides pensions for eligible employees of 38 participating employers. The System is a member of the Massachusetts Contributory Retirement System and is governed by Chapter 32 of the Massachusetts General Laws. The System does not have the authority to amend benefit provisions.

The System is governed by a Retirement Board made up of five elected and appointed members.

Plan membership:

At December 31, 2017, pension plan membership consisted of the following:

Inactive plan members or beneficiaries currently receiving benefits	601
Inactive plan members entitled to but not yet receiving benefits	614
Active plan members	972
	<hr/>
	2,187
	<hr/> <hr/>

Benefits provided:

The System provides retirement, disability and death benefits. Retirement benefits are determined as a percentage of the member's 3-year (5-year for members hired after April 1, 2012) final average compensation times the member's years of service. The percentage is based on the age of the member at retirement and his or her Group classification. Cost-of-living adjustments of 3% of the first \$17,000 of the annual retirement allowance are provided at the discretion of the System's Retirement Board. A summary of the benefits is outlined in the January 1, 2018 actuarial valuation report.

Contributions:

Plan members are required to contribute a percentage of their annual compensation that varies according to their membership date, as follows:

Prior to 1975:	5% of Salary
1975 - 1983:	7% of Salary
1984 - June 30, 1996:	8% of Salary
July 1, 1996 - present:	9% of Salary
1979 - present:	An additional 2% of Salary in excess of \$30,000.
Group 1 members hired on or after April 2, 2012:	6% of Salary with 30 or more years of creditable service.

Employer contributions are determined in accordance with the requirements set forth in Section 22D and Section 22F of Chapter 32 of the Massachusetts General Laws ("M.G.L."). The appropriation is comprised of the annual employer normal cost and amortization payments to pay the unfunded actuarial accrued liability.

SECTION 2 - NOTES TO THE FINANCIAL STATEMENTS

Exhibit 2.2 - Net Pension Liability

The components of the Net Pension Liability at December 31, 2017, were as follows:

Total Pension Liability	\$ 189,640,566
Fiduciary Net Position	(143,920,151)
Net Pension Liability	<u>\$ 45,720,415</u>

Fiduciary Net Position as a percentage of the Total Pension Liability 75.89%

Actuarial assumptions:

The Total Pension Liability was determined by an actuarial valuation as of January 1, 2018, using the following actuarial assumptions, applied to all periods included in the measurement:

Inflation	3% per year
Salary increases	Group 1: 6% - 4.25%, based on service Group 4: 7% - 4.75%, based on service
Investment rate of return	7.75%, net of pension plan investment expense, including inflation

Mortality rates were based on the RP-2000 Mortality Table (base year 2009) with full generational mortality improvement using Scale BB. For disabled lives, the mortality rates were based on the RP-2000 Mortality Table (base year 2012) with full generational mortality improvement using Scale BB.

SECTION 2 - NOTES TO THE FINANCIAL STATEMENTS

Exhibit 2.2 - Net Pension Liability

The long-term expected rate of return on pension plan investments was determined using a building-block method in which best-estimate ranges of expected future real rates of return (expected returns, net of pension plan investment expense 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. Best estimates of arithmetic real rates of return for each major asset class included in the pension plan's target asset allocation as of December 31, 2017 (see the discussion of the pension plan's investment policy) are summarized in the following table:

<u>Asset Class</u>	<u>Target Allocation</u>	<u>Long-Term Expected Real Rates of Return¹</u>
PRIT Core	45%	6.00%
Domestic Equity	27%	6.80%
International Equity	5%	6.40%
Real Estate	10%	7.40%
Fixed Income	13%	2.80%
Total	100%	

¹ Provided by Dahab Associates, Inc. (inclusive of fees). Inflation of 2.2% is added to the long-term expected real rates of return to approximate the long-term expected rate of return.

Discount rate:

The discount rate used to measure the Total Pension Liability is 7.75%. The projection of cash flows used to determine the discount rate assumed that contributions from plan members will be made at the current contribution rates and that contributions from participating employers will be made in accordance with Sections 22D and 22F of Chapter 32 of the Massachusetts General Laws. Based on those assumptions, the pension plan's Fiduciary Net Position was projected to be available to make all projected benefit payments of current plan members. 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.

SECTION 2 - NOTES TO THE FINANCIAL STATEMENTS

Exhibit 2.2 - Net Pension Liability

Sensitivity of the Net Pension Liability to changes in the discount rate:

The following presents the Net Pension Liability calculated using the discount rate of 7.75%, as well as what the Net Pension Liability would be if it were calculated using a discount rate 1-percentage point lower (6.75%) or 1-percentage point higher (8.75%) than the current rate:

	1% Decrease (6.75%)	Current Discount Rate (7.75%)	1% Increase (8.75%)
Net Pension Liability	\$ 67,089,580	\$ 45,720,415	\$ 27,632,329

SECTION 3 - REQUIRED SUPPLEMENTARY INFORMATION

Exhibit 3.1 - Changes in Net Pension Liability and Related Ratios

Fiscal Year Ended December 31	<u>2017</u>	<u>2016</u>	<u>2015</u>	<u>2014</u>
Total Pension Liability				
Service cost	\$ 5,207,589	\$ 5,089,632	\$ 4,703,273	\$ 4,703,273
Interest	13,899,079	12,791,108	12,116,265	11,306,271
Changes of benefit terms	(293,031)	1,003,761	962,410	-
Differences between expected and actual experience	1,964,150	(146,259)	-	-
Changes of assumptions	180,697	5,736,511	-	-
Benefit payments, including refunds of member contributions	(10,906,590)	(9,686,040)	(9,235,255)	(11,287,291)
Net change in Total Pension Liability	<u>\$ 10,051,894</u>	<u>\$ 14,788,713</u>	<u>\$ 8,546,693</u>	<u>\$ 4,722,253</u>
Total Pension Liability—beginning	<u>\$ 179,588,672</u>	<u>\$ 164,799,959</u>	<u>\$ 156,253,266</u>	<u>\$ 151,531,013</u>
Total Pension Liability—ending (a)	<u><u>\$ 189,640,566</u></u>	<u><u>\$ 179,588,672</u></u>	<u><u>\$ 164,799,959</u></u>	<u><u>\$ 156,253,266</u></u>
Fiduciary Net Position				
Contributions—employer	\$ 6,166,761	\$ 5,875,820	\$ 5,645,345	\$ 5,418,158
Contributions—member	3,310,425	3,098,432	2,971,069	3,270,956
Net investment income	18,794,508	10,050,389	579,359	8,362,434
Benefit payments, including refunds of member contributions	(10,906,590)	(9,686,040)	(9,235,255)	(11,287,291)
Administrative expenses	(495,399)	(498,301)	(469,365)	(403,802)
Other	-	-	-	-
Net change in Fiduciary Net Position	<u>\$ 16,869,705</u>	<u>\$ 8,840,300</u>	<u>\$ (508,847)</u>	<u>\$ 5,360,455</u>
Fiduciary Net Position—beginning	<u>127,050,446</u>	<u>118,210,146</u>	<u>118,718,993</u>	<u>113,358,538</u>
Fiduciary Net Position—ending (b)	<u><u>\$ 143,920,151</u></u>	<u><u>\$ 127,050,446</u></u>	<u><u>\$ 118,210,146</u></u>	<u><u>\$ 118,718,993</u></u>
Net Pension Liability—ending (a) – (b)	<u><u>\$ 45,720,415</u></u>	<u><u>\$ 52,538,226</u></u>	<u><u>\$ 46,589,813</u></u>	<u><u>\$ 37,534,273</u></u>
Fiduciary Net Position as a percentage of the Total Pension Liability	75.89%	70.75%	71.73%	75.98%
Covered Payroll ¹	\$ 29,460,407	\$ 33,556,164	\$ 32,088,838	\$ 30,854,652
Net Pension Liability as a percentage of Covered Payroll	155.19%	156.57%	145.19%	121.65%

¹ Covered Payroll for 2017 is the pension payroll provided by the Franklin Regional Retirement System and used to develop the 2018 appropriation.

SECTION 3 - REQUIRED SUPPLEMENTARY INFORMATION

Exhibit 3.2 - Schedule of Employer Contributions

Fiscal Year Ended December 31	<u>2017</u>	<u>2016</u>	<u>2015</u>	<u>2014</u>
Actuarially Determined Contribution	\$ 6,166,761	\$ 5,875,820	\$ 5,645,345	\$ 5,888,495
Contributions in relation to the Actuarially Determined Contribution	<u>6,166,761</u>	<u>5,875,820</u>	<u>5,645,345</u>	<u>5,888,495</u>
Contribution deficiency (excess)	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>
 Covered Payroll	 \$ 29,460,407	 \$ 33,556,164	 \$ 32,088,838	 \$ 30,854,652
Contributions as a percentage of Covered Payroll	20.93%	17.51%	17.59%	19.08%

The contribution shown above, \$6,166,761, represents the actual contributions made by member units of the Franklin Regional Retirement System for the 2018 fiscal year.

SECTION 3 - REQUIRED SUPPLEMENTARY INFORMATION

Exhibit 3.3 - Investment Returns

Fiscal Year Ended December 31	<u>2017</u>	<u>2016</u>	<u>2015</u>	<u>2014</u>
Annual money-weighted rate of return, net of investment expense	14.48%	8.24%	0.57%	7.37%

The money-weighted rate of return considers the changing amounts actually invested during a period and weights the amount of pension plan investments by the proportion of time they are available to earn a return during that period. The rate of return is then calculated by solving, through an iterative process, for the rate that equates the sum of the weighted external cash flows into and out of the pension plan investments to the ending fair value of pension plan investments.

Appendix A shows the details of the calculation of the money-weighted rate of return for the current fiscal year.

SECTION 3 - REQUIRED SUPPLEMENTARY INFORMATION

Exhibit 3.4 - Notes to the Required Supplementary Information

Changes of benefit terms:

Effective July 1, 2018, a 2% cost-of-living-adjustment (COLA) of the first \$17,000 was provided.

Changes of assumptions:

Retirement and disability rates were revised effective January 1, 2018.

Methods and assumptions used in calculations of Actuarially Determined Contributions:

The Actuarially Determined Contributions in the schedule of employers' contributions are calculated as of July 1 of the fiscal year in which contributions are reported. The following actuarial methods and assumptions were used to determine contributions reported in that schedule:

Actuarial cost method	Entry Age Normal
Amortization method	UAAL: Increasing dollar amount at 4% to reduce the Unfunded Actuarial Accrued Liability to zero on or before June 30, 2034. The annual increase in appropriation is further limited to 5.75%. 2002 & 2003 ERI: Level dollar amount to reduce the 2002 and 2003 ERI Actuarial Accrued Liability to zero on or before June 30, 2019 and June 30, 2020, respectively.
Asset valuation method	The Actuarial Value of Assets is the market value of assets as of the valuation date reduced by the sum of: a) 75% of gains and losses of the prior year, b) 50% of gains and losses of the second prior year and c) 25% of gains and losses of the third prior year. Investment gains and losses are determined by the excess or deficiency of the expected return over the actual return on the market value. The actuarial valuation of assets is further constrained to be not less than 90% or more than 110% of market value.
Inflation	3% per year
Salary increases	Group 1: 6% - 4.25%, based on service Group 4: 7% - 4.75%, based on service
Payroll growth	4% per year
Investment rate of return	7.75%, net of pension plan investment expense, including inflation.

SECTION 4 - EMPLOYER REPORTING AMOUNTS UNDER GASB 68

Exhibit 4.1 - Deferred Outflows of Resources and Deferred Inflows of Resources

Deferred Outflows of Resources and Deferred Inflows of Resources arising from differences between expected and actual experience are recognized in Pension Expense over the average expected remaining service life of all active and inactive members.

Year	Experience Losses	Experience Gains	Amounts Recognized in Pension Expense through December 31, 2017 (c)	Balances at December 31, 2017	
	(a)	(b)		Deferred Outflows of Resources (a) - (c)	Deferred Inflows of Resources (b) - (c)
2016	\$ -	\$ 146,259	\$ (64,432)	\$ -	\$ 81,827
2017	\$ 1,964,150	\$ -	\$ 439,407	\$ 1,524,743	\$ -
				\$ 1,524,743	\$ 81,827

Deferred Outflows of Resources and Deferred Inflows of Resources arising from changes of assumptions are recognized in Pension Expense over the average expected remaining service life of all active and inactive members.

Year	Increases in the Total Pension Liability	Decreases in the Total Pension Liability	Amounts Recognized in Pension Expense through December 31, 2017 (c)	Balances at December 31, 2017	
	(a)	(b)		Deferred Outflows of Resources (a) - (c)	Deferred Inflows of Resources (b) - (c)
2016	\$ 5,736,511	\$ -	\$ 2,527,098	\$ 3,209,413	\$ -
2017	\$ 180,697	\$ -	\$ 40,424	\$ 140,273	\$ -
				\$ 3,349,686	\$ -

SECTION 4 - EMPLOYER REPORTING AMOUNTS UNDER GASB 68

Exhibit 4.1 - Deferred Outflows of Resources and Deferred Inflows of Resources

Deferred Outflows of Resources and Deferred Inflows of Resources arising from differences between projected and actual earnings on Pension Plan investments are recognized in Pension Expense over five years.

Year	Investment Earnings Less Than Projected	Investment Earnings Greater Than Projected	Amounts Recognized in Pension Expense through December 31, 2017	Balances at December 31, 2017	
	(a)	(b)	(c)	Deferred Outflows of Resources (a) - (c)	Deferred Inflows of Resources (b) - (c)
2014	\$ 306,526	\$ -	\$ 245,220	\$ 61,306	\$ -
2015	\$ 8,579,195	\$ -	\$ 5,147,517	\$ 3,431,678	\$ -
2016	\$ -	\$ 935,994	\$ (374,398)	\$ -	\$ 561,596
2017	\$ -	\$ 9,022,685	\$ (1,804,537)	\$ -	\$ 7,218,148
Subtotal				<u>\$ 3,492,984</u>	<u>\$ 7,779,744</u>
				<u>\$ -</u>	<u>\$ 4,286,760</u>

Deferred Outflows of Resources and Deferred Inflows of Resources arising from changes in proportion and differences between employer contributions and proportionate share of contributions are recognized in Pension Expense over the average expected remaining service life of all active and inactive members.

Year	Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions (Outflows)	Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions (Inflows)	Amounts Recognized in Pension Expense through December 31, 2017	Balances at December 31, 2017	
	(a)	(b)	(c)	Deferred Outflows of Resources (a) - (c)	Deferred Inflows of Resources (b) - (c)
2015	\$ 2,688,537	\$ 2,688,534	\$ 1,727,111	\$ 961,426	\$ 961,426
2016	\$ 686,573	\$ 686,573	\$ 302,456	\$ 384,117	\$ 384,117
2017	\$ 677,438	\$ 677,438	\$ 151,553	\$ 525,885	\$ 525,885
				<u>\$ 1,871,428</u>	<u>\$ 1,871,428</u>

SECTION 4 - EMPLOYER REPORTING AMOUNTS UNDER GASB 68

Exhibit 4.1 - Deferred Outflows of Resources and Deferred Inflows of Resources

Amounts reported as Deferred Outflows of Resources and Deferred Inflows of Resources will be recognized in Pension Expense as follows:

Year ended December 31		
2018	\$	1,496,573
2019	\$	1,435,267
2020	\$	(846,984)
2021	\$	(1,579,014)
2022	\$	-
Thereafter	\$	-

SECTION 4 - EMPLOYER REPORTING AMOUNTS UNDER GASB 68

Exhibit 4.2 - Pension Expense

Fiscal Year Ended December 31	<u>2017</u>
1. Service cost	\$ 5,207,589
2. Interest on the total pension liability	
a. Total Pension Liability, beginning of year	179,588,672
b. Service cost, beginning of year	5,207,589
c. Benefit payments, including refunds of employee contributions	<u>(10,906,590)</u>
d. Interest on Total Pension Liability	13,899,079
3. Differences between expected and actual experience	407,191
4. Changes of benefit terms	(293,031)
5. Changes of assumptions	1,303,973
6. Employee contributions	(3,310,425)
7. Projected earnings on pension plan investments	
a. Fiduciary Net Position, beginning of year	127,050,446
b. Employer contributions	6,166,761
c. Employee contributions	3,310,425
d. Benefit payments, including refunds of employee contributions	<u>(10,906,590)</u>
e. Administrative expenses and other	<u>(495,399)</u>
f. Total projected earnings	(9,771,823)
8. Differences between projected and actual earnings on plan investments	(214,592)
9. Pension plan administrative expenses	495,399
10. Other changes in Fiduciary Net Position	<u>-</u>
11. Total Pension Expense	<u><u>\$ 7,723,360</u></u>

SECTION 4 - EMPLOYER REPORTING AMOUNTS UNDER GASB 68

Exhibit 4.3 - Proportionate Share of Contributions

The basis of an employer's allocation of the collective pension amount is consistent with the manner in which contributions to the plan are made. The schedule of employer allocations for 2017 and 2016, based on employer contributions made for the 2018 fiscal year and 2017 fiscal year, respectively, shows the proportionate relationship of each employer to all employers and each employer's allocation percentage.

Entity	2017		2016	
	Employer Contribution	Proportionate Share of Total Employer Contribution	Employer Contribution	Proportionate Share of Total Employer Contribution
Town of Ashfield	83,596	1.355590%	76,280	1.298202%
Town of Bernardston	91,359	1.481475%	84,756	1.442454%
Bernardston Fire & Water District	2,985	0.048405%	2,825	0.048078%
Town of Buckland	120,569	1.955143%	111,084	1.890528%
Town of Charlemont	64,489	1.045752%	59,894	1.019330%
Town of Colrain	80,515	1.305629%	75,567	1.286067%
Town of Conway	165,999	2.691834%	155,386	2.644499%
Town of Deerfield	536,211	8.695180%	496,669	8.452761%
Town of Erving	267,509	4.337917%	285,529	4.859390%
Franklin County Regional Housing Authority	254,252	4.122942%	256,709	4.368905%
Franklin County Solid Waste Management District	25,794	0.418282%	24,412	0.415465%
Franklin Regional Transit Authority	65,084	1.055400%	55,831	0.950182%
Frontier Regional School District	383,032	6.211235%	353,718	6.019892%
Town of Gill	93,699	1.519420%	86,479	1.471778%
Hawlemont Regional School District	52,547	0.852100%	51,419	0.875095%
Town of Hawley	24,482	0.396999%	22,037	0.375046%
Town of Heath	53,143	0.861765%	49,159	0.836632%
Town of Leverett	193,589	3.139233%	185,032	3.149041%
Town of Leyden	26,273	0.426042%	23,167	0.394277%
Mahar Regional School District	302,141	4.899509%	279,129	4.750469%
Mohawk Regional School District	559,499	9.072818%	539,612	9.183603%
Town of Monroe	19,474	0.315791%	18,646	0.317334%
Town of New Salem	45,381	0.735897%	41,247	0.701979%
New Salem/Wendell Union School District	125,407	2.033596%	118,022	2.008605%
Town of Northfield	175,262	2.842043%	163,467	2.782029%
Town of Orange	902,626	14.636954%	895,582	15.241822%
Orange Housing Authority	8,957	0.145246%	9,040	0.153851%
Pioneer Valley Regional School District	446,993	7.248417%	417,342	7.102702%
Town of Rowe	132,439	2.147627%	125,895	2.142595%

SECTION 4 - EMPLOYER REPORTING AMOUNTS UNDER GASB 68

Exhibit 4.3 - Proportionate Share of Contributions

The basis of an employer's allocation of the collective pension amount is consistent with the manner in which contributions to the plan are made. The schedule of employer allocations for 2017 and 2016, based on employer contributions made for the 2018 fiscal year and 2017 fiscal year, respectively, shows the proportionate relationship of each employer to all employers and each employer's allocation percentage.

Entity	2017		2016	
	Employer Contribution	Proportionate Share of Total Employer Contribution	Employer Contribution	Proportionate Share of Total Employer Contribution
Town of Shelburne	115,244	1.868793%	109,618	1.865578%
Shelburne Falls Fire District	40,007	0.648752%	37,292	0.634669%
Town of Shutesbury	173,164	2.808022%	164,426	2.798350%
South Deerfield Fire District	11,942	0.193651%	10,736	0.182715%
South Deerfield Water Supply District	28,661	0.464766%	28,817	0.490434%
Town of Sunderland	230,487	3.737570%	218,104	3.711890%
Town of Warwick	48,963	0.793982%	46,333	0.788537%
Town of Wendell	47,197	0.765345%	42,303	0.719951%
Town of Whately	167,790	2.720877%	154,256	2.625268%
Total	6,166,761	100.000000%	5,875,820	100.000000%

SECTION 4 - EMPLOYER REPORTING AMOUNTS UNDER GASB 68

Exhibit 4.4 - Pension Amounts by Employer

The schedule of Pension Amounts by Employer is provided in Appendix C. The schedule shows the Net Pension Liability, the various categories of Deferred Outflows of Resources and Deferred Inflows of Resources and Pension Expense for each employer. The schedule includes the differences between expected and actual experience, differences between projected and actual investment earnings and changes of assumptions. Further, each employer is required to recognize Deferred Outflows of Resources and Deferred Inflows of Resources related to (1) the net impact from changes in proportion between periods and (2) differences between actual contributions made by an employer and their proportionate share of contributions.

Each employer's allocation of Pension Expense and Net Pension Liability can be based on the proportion of its contributions to the aggregate amount of employer contributions.

Under GASB 68, gains and losses (investment, experience or assumption changes) and changes in employer's proportionate shares related to pensions are recognized in Pension Expense systematically over time.

The first amortized amounts are recognized in Pension Expense for the year the gain or loss occurs. The remaining amounts are categorized as Deferred Inflows and Deferred Outflows to be recognized in future Pension Expense.

The amortization period differs depending on the source of the gain or loss:

Difference between projected and actual earnings	5 year straight-line amortization
All other amounts	Straight-line amortization over the average expected remaining service lives of all members that are provided with benefits (actives, inactives and retirees) as of the beginning of the measurement period

For 2017:

- ◆ Net Pension Liability, Deferred Outflows of Resources, Deferred Inflows of Resources and Pension Expense are allocated to each employer based on its proportionate share of Total Employer Contribution shown in Exhibit 4.3.
- ◆ The difference between expected and actual experience is amortized over the average of the expected future service lives of all participants.
- ◆ Net difference between projected and actual investment earnings (gain on pension plan investments for 2017) is amortized over 5 years, with the first amortized amount recognized in Pension Expense in the current year. Similar Deferred Outflows of Resources and Deferred Inflows of Resources were established during prior years, with the first amortized amount recognized in Pension Expense in 2014.
- ◆ The change in Total Pension Liability as a result of changes in assumptions is amortized over the average of the expected future service lives of all participants, with the first amortized amount recognized in Pension Expense in the current year. Similar Deferred Outflows of Resources and Deferred Inflows of Resources were established during prior years, with the first amortized amount recognized in Pension Expense in 2016.

SECTION 4 - EMPLOYER REPORTING AMOUNTS UNDER GASB 68

Exhibit 4.4 - Pension Amounts by Employer

For 2017 (continued):

- ◆ There are no differences between employer contributions and the proportionate share of contributions because the Plan utilizes employer contributions as the method of allocation.

- ◆ The net effect of the change in the employer's proportionate shares of the collective Net Pension Liability, collective Deferred Outflows and Deferred Inflows is amortized over the average expected remaining service lives of all members, with the first amortized amount recognized in Pension Expense in the current year. Similar Deferred Outflows of Resources and Deferred Inflows of Resources were established during prior years, with the first amortized amount recognized in 2015.

- ◆ No adjustments have been made for employer contributions made subsequent to the measurement date as defined in paragraph 57 of GASB 68.

SECTION 5 - GLOSSARY OF TERMS

Actuarial Assumptions – Assumptions, based upon past experience or standard tables, used to predict the occurrence of future events affecting the commencement, amount and duration of pension benefits, such as: changes in compensation, mortality, withdrawal, disablement and retirement; rates of investment earnings and asset appreciation or depreciation; and any other relevant items.

Actuarial Cost Method (or Funding Method) – A procedure for allocating the Actuarial Present Value of projected benefit payments to the current year (Service Cost) and the past (Total Pension Liability).

Actuarial Gain or Loss (or Experience Gain or Loss) – A measure of the difference between actual experience and that expected based upon the set of Actuarial Assumptions during the period between the valuation date and the most recent immediately preceding valuation date.

Actuarial Present Value of Projected Benefit Payments – The dollar value on the valuation date of all benefits expected to be paid to current members based upon the Actuarial Assumptions and the terms of the Plan.

Actuarially Determined Contribution – A target or recommended contribution to a defined benefit pension plan for the reporting period, determined in conformity with Actuarial Standards of Practice based on the most recent measurement available when the contribution for the reporting period was adopted.

Actuarial Valuation Date – The date as of which an actuarial valuation is performed. This date may be up to 24 months prior to the measurement date and up to 30 months prior to the employer's reporting date.

Deferred Inflow of Resources – Acquisition of resources by a government that is applicable to future reporting periods. Under GASB 68, deferred inflows of resources are made up of experience gains, assumption changes reducing the Total Pension Liability and investment gains that are recognized in future reporting periods.

Deferred Outflow of Resources – Consumption of resources by a government that is applicable to future reporting periods. Under GASB 68, deferred outflows of resources are made up of experience losses, assumption changes increasing the Total Pension Liability and investment losses that are recognized in future reporting periods.

Entry Age Normal Actuarial Cost Method – A method under which the actuarial present value of the projected benefits of each individual in an actuarial valuation is allocated on a level basis over the earnings or service of the individual between entry age and assumed exit age.

Fiduciary Net Position – The fair market value of assets as of the measurement date.

Funded Ratio – The Actuarial Value of Assets expressed as a percentage of the Actuarial Accrued Liability.

SECTION 5 - GLOSSARY OF TERMS

GASB – Governmental Accounting Standards Board.

Measurement Date – The date as of which the Total Pension Liability and Fiduciary Net Position are measured.

Net Pension Liability – The liability of the employer for benefits provided through a defined benefit pension plan. It is calculated as the Total Pension Liability less the Fiduciary Net Position.

Present Value of Future Benefits – The actuarial present value of the cost to finance benefits payable in the future, discounted to reflect the expected effects of the time value of money and the probabilities of payment.

Reporting Date – The last day of the Plan or employer's fiscal year.

Service Cost – The portion of the actuarial present value of projected benefit amounts that is attributed to a valuation year.

Total Pension Liability – The portion of the actuarial present value of projected benefit amounts that is attributed to past periods of employee service.

Unfunded Actuarial Accrued Liability – The excess of the Actuarial Accrued Liability over the Actuarial Value of Assets.

APPENDIX A - CALCULATION OF MONEY-WEIGHTED RATE OF RETURN

	Plan Investments/ Net External Cash Flows (a)	Periods Invested (b)	Period Weight (c)=(b)÷12	(d)=(a) x (1+r _{mw}) ^(c)
Beginning value - January 1, 2017	\$ 127,050,446	12	1.00	\$ 145,447,002
Monthly net external cash flows:				
January	(556,366)	11	0.92	(629,789)
February	(453,519)	10	0.83	(507,617)
March	(604,463)	9	0.75	(668,985)
April	(638,657)	8	0.67	(698,908)
May	(1,176,332)	7	0.58	(1,272,882)
June	(85,952)	6	0.50	(91,965)
July	4,628,860	5	0.42	4,897,160
August	(211,990)	4	0.33	(221,764)
September	(569,244)	3	0.25	(588,817)
October	(601,968)	2	0.17	(615,689)
November	(636,889)	1	0.08	(644,107)
December	(483,488)	0	0.00	(483,488)
Ending value - December 31, 2017				\$ 143,920,151
Money-weighted rate of return				14.48%

Note: Beginning and ending values are based on amounts reported in the System's 2017 Annual Statement, adjusted for GAAP financial statement adjustments, and monthly cash flows are based on amounts provided by the Retirement System.

APPENDIX B - SCHEDULE OF DEFERRED OUTFLOWS OF RESOURCES AND DEFERRED INFLOWS OF RESOURCES

Year	Differences between Expected and Actual Experience	Recognition Period (Years)	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
2016	\$ (146,259)	4.54	-	-	(32,216)	(32,216)	(32,216)	(32,216)	(17,395)	-	-	-
2017	\$ 1,964,150	4.47	-	-	-	439,407	439,407	439,407	439,407	206,522	-	-
Net Increase (Decrease) in Pension Expense			-	-	(32,216)	407,191	407,191	407,191	422,012	206,522	-	-

Year	Changes of Assumptions	Recognition Period (Years)	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
2016	\$ 5,736,511	4.54	-	-	1,263,549	1,263,549	1,263,549	1,263,549	682,315	-	-	-
2017	\$ 180,697	4.47	-	-	-	40,424	40,424	40,424	40,424	19,001	-	-
Net Increase (Decrease) in Pension Expense			-	-	1,263,549	1,303,973	1,303,973	1,303,973	722,739	19,001	-	-

Year	Differences between Projected and Actual Earnings on Pension Plan Investments	Recognition Period (Years)	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
2014	\$ 306,526	5	61,305	61,305	61,305	61,305	61,306	-	-	-	-	-
2015	\$ 8,579,195	5	-	1,715,839	1,715,839	1,715,839	1,715,839	1,715,839	-	-	-	-
2016	\$ (935,994)	5	-	-	(187,199)	(187,199)	(187,199)	(187,199)	(187,198)	-	-	-
2017	\$ (9,022,685)	5	-	-	-	(1,804,537)	(1,804,537)	(1,804,537)	(1,804,537)	(1,804,537)	-	-
Net Increase (Decrease) in Pension Expense			61,305	1,777,144	1,589,945	(214,592)	(214,591)	(275,897)	(1,991,735)	(1,804,537)	-	-

Franklin Regional Retirement System
 Financial Reporting and Disclosures Under GASB 67 and GASB 68 as of December 31, 2017

APPENDIX C - SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

Pension Amounts as of December 31, 2017	Franklin Regional Retirement System	Town of Ashfield
◆ Current Proportionate Share		1.355590%
◆ Prior Proportionate Share		1.298202%
Beginning Net Pension Liability	\$ 52,538,226	\$ 682,052
Ending Net Pension Liability	\$ 45,720,415	\$ 619,781
Total Deferred Outflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 1,524,743	\$ 20,669
◆ Changes of Assumptions	3,349,686	45,408
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	1,871,428	20,814
◆ Total Deferred Outflows of Resources	<u>\$ 6,745,857</u>	<u>\$ 86,891</u>
Total Deferred Inflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 81,827	\$ 1,109
Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	4,286,760	58,111
◆ Changes of Assumptions	-	\$ -
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	1,871,428	\$ 4,875
◆ Total Deferred Inflows of Resources	<u>\$ 6,240,015</u>	<u>\$ 64,095</u>
Employer Pension Expense:		
◆ Proportionate Share of Plan Pension Expense	\$ 7,723,360	\$ 104,697
◆ Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	4,504
◆ Total Employer Pension Expense	<u>\$ 7,723,360</u>	<u>\$ 109,201</u>
Covered Payroll:	\$ 29,460,407	\$ 412,039
Sensitivity of the Net Pension Liability to changes in the discount rate:		
◆ Current discount rate: 7.75%	\$ 45,720,415	\$ 619,781
◆ 1% decrease in the discount rate: 6.75%	\$ 67,089,580	\$ 909,460
◆ 1% increase in the discount rate: 8.75%	\$ 27,632,329	\$ 374,581
Deferred Outflows of Resources and Deferred Inflows of Resources recognized in Pension Expense:		
◆ 2018	\$ 1,496,573	\$ 24,790
◆ 2019	\$ 1,435,267	\$ 23,689
◆ 2020	\$ (846,984)	\$ (6,913)
◆ 2021	\$ (1,579,014)	\$ (18,770)
◆ 2022	\$ -	\$ -
◆ Thereafter	\$ -	\$ -

Franklin Regional Retirement System
Financial Reporting and Disclosures Under GASB 67 and GASB 68 as of December 31, 2017

APPENDIX C - SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

Pension Amounts as of December 31, 2017	Franklin Regional Retirement System	Town of Bernardston
◆ Current Proportionate Share		1.481475%
◆ Prior Proportionate Share		1.442454%
Beginning Net Pension Liability	\$ 52,538,226	\$ 757,840
Ending Net Pension Liability	\$ 45,720,415	\$ 677,336
Total Deferred Outflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 1,524,743	\$ 22,589
◆ Changes of Assumptions	3,349,686	49,625
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	1,871,428	16,796
◆ Total Deferred Outflows of Resources	<u>\$ 6,745,857</u>	<u>\$ 89,010</u>
Total Deferred Inflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 81,827	\$ 1,212
Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	4,286,760	63,507
◆ Changes of Assumptions	-	\$ -
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	1,871,428	\$ -
◆ Total Deferred Inflows of Resources	<u>\$ 6,240,015</u>	<u>\$ 64,719</u>
Employer Pension Expense:		
◆ Proportionate Share of Plan Pension Expense	\$ 7,723,360	\$ 114,420
◆ Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	5,652
◆ Total Employer Pension Expense	<u>\$ 7,723,360</u>	<u>\$ 120,072</u>
Covered Payroll:	\$ 29,460,407	\$ 451,528
Sensitivity of the Net Pension Liability to changes in the discount rate:		
◆ Current discount rate: 7.75%	\$ 45,720,415	\$ 677,336
◆ 1% decrease in the discount rate: 6.75%	\$ 67,089,580	\$ 993,915
◆ 1% increase in the discount rate: 8.75%	\$ 27,632,329	\$ 409,366
Deferred Outflows of Resources and Deferred Inflows of Resources recognized in Pension Expense:		
◆ 2018	\$ 1,496,573	\$ 27,822
◆ 2019	\$ 1,435,267	\$ 26,497
◆ 2020	\$ (846,984)	\$ (8,428)
◆ 2021	\$ (1,579,014)	\$ (21,600)
◆ 2022	\$ -	\$ -
◆ Thereafter	\$ -	\$ -

Franklin Regional Retirement System
Financial Reporting and Disclosures Under GASB 67 and GASB 68 as of December 31, 2017

APPENDIX C - SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

Pension Amounts as of December 31, 2017	Franklin Regional Retirement System	Bernardston Fire & Water District
◆ Current Proportionate Share		0.048405%
◆ Prior Proportionate Share		0.048078%
Beginning Net Pension Liability	\$ 52,538,226	\$ 25,260
Ending Net Pension Liability	\$ 45,720,415	\$ 22,131
Total Deferred Outflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 1,524,743	\$ 738
◆ Changes of Assumptions	3,349,686	1,621
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	1,871,428	1,151
◆ Total Deferred Outflows of Resources	<u>\$ 6,745,857</u>	<u>\$ 3,510</u>
Total Deferred Inflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 81,827	\$ 40
Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	4,286,760	2,075
◆ Changes of Assumptions	-	\$ -
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	1,871,428	\$ 2,155
◆ Total Deferred Inflows of Resources	<u>\$ 6,240,015</u>	<u>\$ 4,270</u>
Employer Pension Expense:		
◆ Proportionate Share of Plan Pension Expense	\$ 7,723,360	\$ 3,738
◆ Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	(191)
◆ Total Employer Pension Expense	<u>\$ 7,723,360</u>	<u>\$ 3,547</u>
Covered Payroll:	\$ 29,460,407	\$ 15,317
Sensitivity of the Net Pension Liability to changes in the discount rate:		
◆ Current discount rate: 7.75%	\$ 45,720,415	\$ 22,131
◆ 1% decrease in the discount rate: 6.75%	\$ 67,089,580	\$ 32,474
◆ 1% increase in the discount rate: 8.75%	\$ 27,632,329	\$ 13,375
Deferred Outflows of Resources and Deferred Inflows of Resources recognized in Pension Expense:		
◆ 2018	\$ 1,496,573	\$ 530
◆ 2019	\$ 1,435,267	\$ 297
◆ 2020	\$ (846,984)	\$ (837)
◆ 2021	\$ (1,579,014)	\$ (750)
◆ 2022	\$ -	\$ -
◆ Thereafter	\$ -	\$ -

Franklin Regional Retirement System
Financial Reporting and Disclosures Under GASB 67 and GASB 68 as of December 31, 2017

APPENDIX C - SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

Pension Amounts as of December 31, 2017	Franklin Regional Retirement System	Town of Buckland
◆ Current Proportionate Share		1.955143%
◆ Prior Proportionate Share		1.890528%
Beginning Net Pension Liability	\$ 52,538,226	\$ 993,250
Ending Net Pension Liability	\$ 45,720,415	\$ 893,900
Total Deferred Outflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 1,524,743	\$ 29,811
◆ Changes of Assumptions	3,349,686	65,491
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	1,871,428	44,595
◆ Total Deferred Outflows of Resources	<u>\$ 6,745,857</u>	<u>\$ 139,897</u>
Total Deferred Inflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 81,827	\$ 1,600
Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	4,286,760	83,812
◆ Changes of Assumptions	-	\$ -
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	1,871,428	\$ -
◆ Total Deferred Inflows of Resources	<u>\$ 6,240,015</u>	<u>\$ 85,412</u>
Employer Pension Expense:		
◆ Proportionate Share of Plan Pension Expense	\$ 7,723,360	\$ 151,003
◆ Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	18,546
◆ Total Employer Pension Expense	<u>\$ 7,723,360</u>	<u>\$ 169,549</u>
Covered Payroll:	\$ 29,460,407	\$ 561,193
Sensitivity of the Net Pension Liability to changes in the discount rate:		
◆ Current discount rate: 7.75%	\$ 45,720,415	\$ 893,900
◆ 1% decrease in the discount rate: 6.75%	\$ 67,089,580	\$ 1,311,697
◆ 1% increase in the discount rate: 8.75%	\$ 27,632,329	\$ 540,252
Deferred Outflows of Resources and Deferred Inflows of Resources recognized in Pension Expense:		
◆ 2018	\$ 1,496,573	\$ 47,808
◆ 2019	\$ 1,435,267	\$ 43,428
◆ 2020	\$ (846,984)	\$ (8,845)
◆ 2021	\$ (1,579,014)	\$ (27,906)
◆ 2022	\$ -	\$ -
◆ Thereafter	\$ -	\$ -

Franklin Regional Retirement System
Financial Reporting and Disclosures Under GASB 67 and GASB 68 as of December 31, 2017

APPENDIX C - SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

Pension Amounts as of December 31, 2017	Franklin Regional Retirement System	Town of Charlemont
◆ Current Proportionate Share		1.045752%
◆ Prior Proportionate Share		1.019330%
Beginning Net Pension Liability	\$ 52,538,226	\$ 535,538
Ending Net Pension Liability	\$ 45,720,415	\$ 478,122
Total Deferred Outflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 1,524,743	\$ 15,945
◆ Changes of Assumptions	3,349,686	35,029
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	1,871,428	9,155
◆ Total Deferred Outflows of Resources	<u>\$ 6,745,857</u>	<u>\$ 60,129</u>
Total Deferred Inflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 81,827	\$ 856
Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	4,286,760	44,829
◆ Changes of Assumptions	-	\$ -
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	1,871,428	\$ 479
◆ Total Deferred Inflows of Resources	<u>\$ 6,240,015</u>	<u>\$ 46,164</u>
Employer Pension Expense:		
◆ Proportionate Share of Plan Pension Expense	\$ 7,723,360	\$ 80,767
◆ Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	2,511
◆ Total Employer Pension Expense	<u>\$ 7,723,360</u>	<u>\$ 83,278</u>
Covered Payroll:	\$ 29,460,407	\$ 318,588
Sensitivity of the Net Pension Liability to changes in the discount rate:		
◆ Current discount rate: 7.75%	\$ 45,720,415	\$ 478,122
◆ 1% decrease in the discount rate: 6.75%	\$ 67,089,580	\$ 701,590
◆ 1% increase in the discount rate: 8.75%	\$ 27,632,329	\$ 288,966
Deferred Outflows of Resources and Deferred Inflows of Resources recognized in Pension Expense:		
◆ 2018	\$ 1,496,573	\$ 18,163
◆ 2019	\$ 1,435,267	\$ 17,480
◆ 2020	\$ (846,984)	\$ (6,378)
◆ 2021	\$ (1,579,014)	\$ (15,300)
◆ 2022	\$ -	\$ -
◆ Thereafter	\$ -	\$ -

Franklin Regional Retirement System
Financial Reporting and Disclosures Under GASB 67 and GASB 68 as of December 31, 2017

APPENDIX C - SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

Pension Amounts as of December 31, 2017	Franklin Regional Retirement System	Town of Colrain
◆ Current Proportionate Share		1.305629%
◆ Prior Proportionate Share		1.286067%
Beginning Net Pension Liability	\$ 52,538,226	\$ 675,677
Ending Net Pension Liability	\$ 45,720,415	\$ 596,939
Total Deferred Outflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 1,524,743	\$ 19,907
◆ Changes of Assumptions	3,349,686	43,734
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	1,871,428	31,500
◆ Total Deferred Outflows of Resources	<u>\$ 6,745,857</u>	<u>\$ 95,141</u>
Total Deferred Inflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 81,827	\$ 1,068
Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	4,286,760	55,969
◆ Changes of Assumptions	-	\$ -
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	1,871,428	\$ -
◆ Total Deferred Inflows of Resources	<u>\$ 6,240,015</u>	<u>\$ 57,037</u>
Employer Pension Expense:		
◆ Proportionate Share of Plan Pension Expense	\$ 7,723,360	\$ 100,838
◆ Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	16,772
◆ Total Employer Pension Expense	<u>\$ 7,723,360</u>	<u>\$ 117,610</u>
Covered Payroll:	\$ 29,460,407	\$ 350,569
Sensitivity of the Net Pension Liability to changes in the discount rate:		
◆ Current discount rate: 7.75%	\$ 45,720,415	\$ 596,939
◆ 1% decrease in the discount rate: 6.75%	\$ 67,089,580	\$ 875,941
◆ 1% increase in the discount rate: 8.75%	\$ 27,632,329	\$ 360,776
Deferred Outflows of Resources and Deferred Inflows of Resources recognized in Pension Expense:		
◆ 2018	\$ 1,496,573	\$ 36,313
◆ 2019	\$ 1,435,267	\$ 30,626
◆ 2020	\$ (846,984)	\$ (9,116)
◆ 2021	\$ (1,579,014)	\$ (19,719)
◆ 2022	\$ -	\$ -
◆ Thereafter	\$ -	\$ -

Franklin Regional Retirement System
Financial Reporting and Disclosures Under GASB 67 and GASB 68 as of December 31, 2017

APPENDIX C - SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

Pension Amounts as of December 31, 2017	Franklin Regional Retirement System	Town of Conway
◆ Current Proportionate Share		2.691834%
◆ Prior Proportionate Share		2.644499%
Beginning Net Pension Liability	\$ 52,538,226	\$ 1,389,373
Ending Net Pension Liability	\$ 45,720,415	\$ 1,230,718
Total Deferred Outflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 1,524,743	\$ 41,044
◆ Changes of Assumptions	3,349,686	90,168
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	1,871,428	33,986
◆ Total Deferred Outflows of Resources	<u>\$ 6,745,857</u>	<u>\$ 165,198</u>
Total Deferred Inflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 81,827	\$ 2,203
◆ Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	4,286,760	115,392
◆ Changes of Assumptions	-	\$ -
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	1,871,428	\$ 882
◆ Total Deferred Inflows of Resources	<u>\$ 6,240,015</u>	<u>\$ 118,477</u>
Employer Pension Expense:		
◆ Proportionate Share of Plan Pension Expense	\$ 7,723,360	\$ 207,900
◆ Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	11,160
◆ Total Employer Pension Expense	<u>\$ 7,723,360</u>	<u>\$ 219,060</u>
Covered Payroll:	\$ 29,460,407	\$ 819,738
Sensitivity of the Net Pension Liability to changes in the discount rate:		
◆ Current discount rate: 7.75%	\$ 45,720,415	\$ 1,230,718
◆ 1% decrease in the discount rate: 6.75%	\$ 67,089,580	\$ 1,805,940
◆ 1% increase in the discount rate: 8.75%	\$ 27,632,329	\$ 743,817
Deferred Outflows of Resources and Deferred Inflows of Resources recognized in Pension Expense:		
◆ 2018	\$ 1,496,573	\$ 51,444
◆ 2019	\$ 1,435,267	\$ 49,969
◆ 2020	\$ (846,984)	\$ (14,361)
◆ 2021	\$ (1,579,014)	\$ (40,331)
◆ 2022	\$ -	\$ -
◆ Thereafter	\$ -	\$ -

Franklin Regional Retirement System
Financial Reporting and Disclosures Under GASB 67 and GASB 68 as of December 31, 2017

APPENDIX C - SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

Pension Amounts as of December 31, 2017	Franklin Regional Retirement System	Town of Deerfield
◆ Current Proportionate Share		8.695180%
◆ Prior Proportionate Share		8.452761%
Beginning Net Pension Liability	\$ 52,538,226	\$ 4,440,931
Ending Net Pension Liability	\$ 45,720,415	\$ 3,975,473
Total Deferred Outflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 1,524,743	\$ 132,579
◆ Changes of Assumptions	3,349,686	291,261
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	1,871,428	155,332
◆ Total Deferred Outflows of Resources	<u>\$ 6,745,857</u>	<u>\$ 579,172</u>
Total Deferred Inflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 81,827	\$ 7,115
Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	4,286,760	372,742
◆ Changes of Assumptions	-	\$ -
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	1,871,428	\$ -
◆ Total Deferred Inflows of Resources	<u>\$ 6,240,015</u>	<u>\$ 379,857</u>
Employer Pension Expense:		
◆ Proportionate Share of Plan Pension Expense	\$ 7,723,360	\$ 671,560
◆ Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	56,066
◆ Total Employer Pension Expense	<u>\$ 7,723,360</u>	<u>\$ 727,626</u>
Covered Payroll:	\$ 29,460,407	\$ 2,645,878
Sensitivity of the Net Pension Liability to changes in the discount rate:		
◆ Current discount rate: 7.75%	\$ 45,720,415	\$ 3,975,473
◆ 1% decrease in the discount rate: 6.75%	\$ 67,089,580	\$ 5,833,560
◆ 1% increase in the discount rate: 8.75%	\$ 27,632,329	\$ 2,402,681
Deferred Outflows of Resources and Deferred Inflows of Resources recognized in Pension Expense:		
◆ 2018	\$ 1,496,573	\$ 186,194
◆ 2019	\$ 1,435,267	\$ 177,416
◆ 2020	\$ (846,984)	\$ (38,124)
◆ 2021	\$ (1,579,014)	\$ (126,171)
◆ 2022	\$ -	\$ -
◆ Thereafter	\$ -	\$ -

Franklin Regional Retirement System
Financial Reporting and Disclosures Under GASB 67 and GASB 68 as of December 31, 2017

APPENDIX C - SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

Pension Amounts as of December 31, 2017	Franklin Regional Retirement System	Town of Erving
◆ Current Proportionate Share		4.337917%
◆ Prior Proportionate Share		4.859390%
Beginning Net Pension Liability	\$ 52,538,226	\$ 2,553,037
Ending Net Pension Liability	\$ 45,720,415	\$ 1,983,314
Total Deferred Outflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 1,524,743	\$ 66,142
◆ Changes of Assumptions	3,349,686	145,307
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	1,871,428	168,968
◆ Total Deferred Outflows of Resources	<u>\$ 6,745,857</u>	<u>\$ 380,417</u>
Total Deferred Inflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 81,827	\$ 3,550
Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	4,286,760	185,956
◆ Changes of Assumptions	-	\$ -
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	1,871,428	\$ 179,983
◆ Total Deferred Inflows of Resources	<u>\$ 6,240,015</u>	<u>\$ 369,489</u>
Employer Pension Expense:		
◆ Proportionate Share of Plan Pension Expense	\$ 7,723,360	\$ 335,033
◆ Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	13,644
◆ Total Employer Pension Expense	<u>\$ 7,723,360</u>	<u>\$ 348,677</u>
Covered Payroll:	\$ 29,460,407	\$ 1,319,102
Sensitivity of the Net Pension Liability to changes in the discount rate:		
◆ Current discount rate: 7.75%	\$ 45,720,415	\$ 1,983,314
◆ 1% decrease in the discount rate: 6.75%	\$ 67,089,580	\$ 2,910,291
◆ 1% increase in the discount rate: 8.75%	\$ 27,632,329	\$ 1,198,668
Deferred Outflows of Resources and Deferred Inflows of Resources recognized in Pension Expense:		
◆ 2018	\$ 1,496,573	\$ 78,565
◆ 2019	\$ 1,435,267	\$ 76,548
◆ 2020	\$ (846,984)	\$ (51,750)
◆ 2021	\$ (1,579,014)	\$ (92,435)
◆ 2022	\$ -	\$ -
◆ Thereafter	\$ -	\$ -

Franklin Regional Retirement System
Financial Reporting and Disclosures Under GASB 67 and GASB 68 as of December 31, 2017

APPENDIX C - SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

Pension Amounts as of December 31, 2017	Franklin Regional Retirement System	Franklin County Regional Housing Authority
◆ Current Proportionate Share		4.122942%
◆ Prior Proportionate Share		4.368905%
Beginning Net Pension Liability	\$ 52,538,226	\$ 2,295,345
Ending Net Pension Liability	\$ 45,720,415	\$ 1,885,026
Total Deferred Outflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 1,524,743	\$ 62,864
◆ Changes of Assumptions	3,349,686	138,106
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	1,871,428	80,415
◆ Total Deferred Outflows of Resources	<u>\$ 6,745,857</u>	<u>\$ 281,385</u>
Total Deferred Inflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 81,827	\$ 3,374
Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	4,286,760	176,741
◆ Changes of Assumptions	-	\$ -
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	1,871,428	\$ 146,221
◆ Total Deferred Inflows of Resources	<u>\$ 6,240,015</u>	<u>\$ 326,336</u>
Employer Pension Expense:		
◆ Proportionate Share of Plan Pension Expense	\$ 7,723,360	\$ 318,430
◆ Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	(618)
◆ Total Employer Pension Expense	<u>\$ 7,723,360</u>	<u>\$ 317,812</u>
Covered Payroll:	\$ 29,460,407	\$ 1,230,969
Sensitivity of the Net Pension Liability to changes in the discount rate:		
◆ Current discount rate: 7.75%	\$ 45,720,415	\$ 1,885,026
◆ 1% decrease in the discount rate: 6.75%	\$ 67,089,580	\$ 2,766,065
◆ 1% increase in the discount rate: 8.75%	\$ 27,632,329	\$ 1,139,265
Deferred Outflows of Resources and Deferred Inflows of Resources recognized in Pension Expense:		
◆ 2018	\$ 1,496,573	\$ 61,084
◆ 2019	\$ 1,435,267	\$ 42,666
◆ 2020	\$ (846,984)	\$ (72,308)
◆ 2021	\$ (1,579,014)	\$ (76,393)
◆ 2022	\$ -	\$ -
◆ Thereafter	\$ -	\$ -

Franklin Regional Retirement System
Financial Reporting and Disclosures Under GASB 67 and GASB 68 as of December 31, 2017

APPENDIX C - SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

Pension Amounts as of December 31, 2017	Franklin Regional Retirement System	Franklin County Solid Waste Management District
◆ Current Proportionate Share		0.418282%
◆ Prior Proportionate Share		0.415465%
Beginning Net Pension Liability	\$ 52,538,226	\$ 218,278
Ending Net Pension Liability	\$ 45,720,415	\$ 191,240
Total Deferred Outflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 1,524,743	\$ 6,378
◆ Changes of Assumptions	3,349,686	14,011
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	1,871,428	4,469
◆ Total Deferred Outflows of Resources	<u>\$ 6,745,857</u>	<u>\$ 24,858</u>
Total Deferred Inflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 81,827	\$ 342
Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	4,286,760	17,931
◆ Changes of Assumptions	-	\$ -
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	1,871,428	\$ 199
◆ Total Deferred Inflows of Resources	<u>\$ 6,240,015</u>	<u>\$ 18,472</u>
Employer Pension Expense:		
◆ Proportionate Share of Plan Pension Expense	\$ 7,723,360	\$ 32,305
◆ Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	2,301
◆ Total Employer Pension Expense	<u>\$ 7,723,360</u>	<u>\$ 34,606</u>
Covered Payroll:	\$ 29,460,407	\$ 125,000
Sensitivity of the Net Pension Liability to changes in the discount rate:		
◆ Current discount rate: 7.75%	\$ 45,720,415	\$ 191,240
◆ 1% decrease in the discount rate: 6.75%	\$ 67,089,580	\$ 280,624
◆ 1% increase in the discount rate: 8.75%	\$ 27,632,329	\$ 115,581
Deferred Outflows of Resources and Deferred Inflows of Resources recognized in Pension Expense:		
◆ 2018	\$ 1,496,573	\$ 8,562
◆ 2019	\$ 1,435,267	\$ 7,609
◆ 2020	\$ (846,984)	\$ (3,310)
◆ 2021	\$ (1,579,014)	\$ (6,475)
◆ 2022	\$ -	\$ -
◆ Thereafter	\$ -	\$ -

Franklin Regional Retirement System
Financial Reporting and Disclosures Under GASB 67 and GASB 68 as of December 31, 2017

APPENDIX C - SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

Pension Amounts as of December 31, 2017	Franklin Regional Retirement System	Franklin Regional Council of Governments
◆ Current Proportionate Share		0.000000%
◆ Prior Proportionate Share		0.000000%
Beginning Net Pension Liability	\$ 52,538,226	\$ -
Ending Net Pension Liability	\$ 45,720,415	\$ -
Total Deferred Outflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 1,524,743	\$ -
◆ Changes of Assumptions	3,349,686	-
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	1,871,428	-
◆ Total Deferred Outflows of Resources	<u>\$ 6,745,857</u>	<u>\$ -</u>
Total Deferred Inflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 81,827	\$ -
Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	4,286,760	-
◆ Changes of Assumptions	-	\$ -
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	1,871,428	\$ 924,090
◆ Total Deferred Inflows of Resources	<u>\$ 6,240,015</u>	<u>\$ 924,090</u>
Employer Pension Expense:		
◆ Proportionate Share of Plan Pension Expense	\$ 7,723,360	\$ -
◆ Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	(553,347)
◆ Total Employer Pension Expense	<u>\$ 7,723,360</u>	<u>\$ (553,347)</u>
Covered Payroll:	\$ 29,460,407	\$ -
Sensitivity of the Net Pension Liability to changes in the discount rate:		
◆ Current discount rate: 7.75%	\$ 45,720,415	\$ -
◆ 1% decrease in the discount rate: 6.75%	\$ 67,089,580	\$ -
◆ 1% increase in the discount rate: 8.75%	\$ 27,632,329	\$ -
Deferred Outflows of Resources and Deferred Inflows of Resources recognized in Pension Expense:		
◆ 2018	\$ 1,496,573	\$ (553,347)
◆ 2019	\$ 1,435,267	\$ (370,743)
◆ 2020	\$ (846,984)	\$ -
◆ 2021	\$ (1,579,014)	\$ -
◆ 2022	\$ -	\$ -
◆ Thereafter	\$ -	\$ -

Franklin Regional Retirement System
Financial Reporting and Disclosures Under GASB 67 and GASB 68 as of December 31, 2017

APPENDIX C - SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

Pension Amounts as of December 31, 2017	Franklin Regional Retirement System	Franklin Regional Transit Authority
◆ Current Proportionate Share		1.055400%
◆ Prior Proportionate Share		0.950182%
Beginning Net Pension Liability	\$ 52,538,226	\$ 499,209
Ending Net Pension Liability	\$ 45,720,415	\$ 482,533
Total Deferred Outflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 1,524,743	\$ 16,092
◆ Changes of Assumptions	3,349,686	35,353
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	1,871,428	56,926
◆ Total Deferred Outflows of Resources	<u>\$ 6,745,857</u>	<u>\$ 108,371</u>
Total Deferred Inflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 81,827	\$ 864
Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	4,286,760	45,242
◆ Changes of Assumptions	-	\$ -
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	1,871,428	\$ 10,128
◆ Total Deferred Inflows of Resources	<u>\$ 6,240,015</u>	<u>\$ 56,234</u>
Employer Pension Expense:		
◆ Proportionate Share of Plan Pension Expense	\$ 7,723,360	\$ 81,512
◆ Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	12,585
◆ Total Employer Pension Expense	<u>\$ 7,723,360</u>	<u>\$ 94,097</u>
Covered Payroll:	\$ 29,460,407	\$ 315,132
Sensitivity of the Net Pension Liability to changes in the discount rate:		
◆ Current discount rate: 7.75%	\$ 45,720,415	\$ 482,533
◆ 1% decrease in the discount rate: 6.75%	\$ 67,089,580	\$ 708,063
◆ 1% increase in the discount rate: 8.75%	\$ 27,632,329	\$ 291,632
Deferred Outflows of Resources and Deferred Inflows of Resources recognized in Pension Expense:		
◆ 2018	\$ 1,496,573	\$ 28,380
◆ 2019	\$ 1,435,267	\$ 29,734
◆ 2020	\$ (846,984)	\$ 5,858
◆ 2021	\$ (1,579,014)	\$ (11,835)
◆ 2022	\$ -	\$ -
◆ Thereafter	\$ -	\$ -

Franklin Regional Retirement System
Financial Reporting and Disclosures Under GASB 67 and GASB 68 as of December 31, 2017

APPENDIX C - SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

Pension Amounts as of December 31, 2017	Franklin Regional Retirement System	Frontier Regional School District
◆ Current Proportionate Share		6.211235%
◆ Prior Proportionate Share		6.019892%
Beginning Net Pension Liability	\$ 52,538,226	\$ 3,162,744
Ending Net Pension Liability	\$ 45,720,415	\$ 2,839,802
Total Deferred Outflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 1,524,743	\$ 94,705
◆ Changes of Assumptions	3,349,686	208,057
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	1,871,428	93,187
◆ Total Deferred Outflows of Resources	<u>\$ 6,745,857</u>	<u>\$ 395,949</u>
Total Deferred Inflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 81,827	\$ 5,082
Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	4,286,760	266,261
◆ Changes of Assumptions	-	\$ -
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	1,871,428	\$ -
◆ Total Deferred Inflows of Resources	<u>\$ 6,240,015</u>	<u>\$ 271,343</u>
Employer Pension Expense:		
◆ Proportionate Share of Plan Pension Expense	\$ 7,723,360	\$ 479,716
◆ Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	32,034
◆ Total Employer Pension Expense	<u>\$ 7,723,360</u>	<u>\$ 511,750</u>
Covered Payroll:	\$ 29,460,407	\$ 1,861,728
Sensitivity of the Net Pension Liability to changes in the discount rate:		
◆ Current discount rate: 7.75%	\$ 45,720,415	\$ 2,839,802
◆ 1% decrease in the discount rate: 6.75%	\$ 67,089,580	\$ 4,167,091
◆ 1% increase in the discount rate: 8.75%	\$ 27,632,329	\$ 1,716,309
Deferred Outflows of Resources and Deferred Inflows of Resources recognized in Pension Expense:		
◆ 2018	\$ 1,496,573	\$ 124,991
◆ 2019	\$ 1,435,267	\$ 119,073
◆ 2020	\$ (846,984)	\$ (30,165)
◆ 2021	\$ (1,579,014)	\$ (89,293)
◆ 2022	\$ -	\$ -
◆ Thereafter	\$ -	\$ -

Franklin Regional Retirement System
Financial Reporting and Disclosures Under GASB 67 and GASB 68 as of December 31, 2017

APPENDIX C - SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

Pension Amounts as of December 31, 2017	Franklin Regional Retirement System	Town of Gill
◆ Current Proportionate Share		1.519420%
◆ Prior Proportionate Share		1.471778%
Beginning Net Pension Liability	\$ 52,538,226	\$ 773,246
Ending Net Pension Liability	\$ 45,720,415	\$ 694,685
Total Deferred Outflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 1,524,743	\$ 23,167
◆ Changes of Assumptions	3,349,686	50,896
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	1,871,428	53,838
◆ Total Deferred Outflows of Resources	<u>\$ 6,745,857</u>	<u>\$ 127,901</u>
Total Deferred Inflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 81,827	\$ 1,243
Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	4,286,760	65,134
◆ Changes of Assumptions	-	\$ -
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	1,871,428	\$ -
◆ Total Deferred Inflows of Resources	<u>\$ 6,240,015</u>	<u>\$ 66,377</u>
Employer Pension Expense:		
◆ Proportionate Share of Plan Pension Expense	\$ 7,723,360	\$ 117,350
◆ Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	25,097
◆ Total Employer Pension Expense	<u>\$ 7,723,360</u>	<u>\$ 142,447</u>
Covered Payroll:	\$ 29,460,407	\$ 404,564
Sensitivity of the Net Pension Liability to changes in the discount rate:		
◆ Current discount rate: 7.75%	\$ 45,720,415	\$ 694,685
◆ 1% decrease in the discount rate: 6.75%	\$ 67,089,580	\$ 1,019,372
◆ 1% increase in the discount rate: 8.75%	\$ 27,632,329	\$ 419,851
Deferred Outflows of Resources and Deferred Inflows of Resources recognized in Pension Expense:		
◆ 2018	\$ 1,496,573	\$ 47,836
◆ 2019	\$ 1,435,267	\$ 41,505
◆ 2020	\$ (846,984)	\$ (6,012)
◆ 2021	\$ (1,579,014)	\$ (21,805)
◆ 2022	\$ -	\$ -
◆ Thereafter	\$ -	\$ -

Franklin Regional Retirement System
Financial Reporting and Disclosures Under GASB 67 and GASB 68 as of December 31, 2017

APPENDIX C - SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

Pension Amounts as of December 31, 2017	Franklin Regional Retirement System	Hawlemont Regional School District
◆ Current Proportionate Share		0.852100%
◆ Prior Proportionate Share		0.875095%
Beginning Net Pension Liability	\$ 52,538,226	\$ 459,759
Ending Net Pension Liability	\$ 45,720,415	\$ 389,584
Total Deferred Outflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 1,524,743	\$ 12,992
◆ Changes of Assumptions	3,349,686	28,543
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	1,871,428	3,400
◆ Total Deferred Outflows of Resources	<u>\$ 6,745,857</u>	<u>\$ 44,935</u>
Total Deferred Inflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 81,827	\$ 697
Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	4,286,760	36,528
◆ Changes of Assumptions	-	\$ -
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	1,871,428	\$ 16,731
◆ Total Deferred Inflows of Resources	<u>\$ 6,240,015</u>	<u>\$ 53,956</u>
Employer Pension Expense:		
◆ Proportionate Share of Plan Pension Expense	\$ 7,723,360	\$ 65,811
◆ Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	(3,729)
◆ Total Employer Pension Expense	<u>\$ 7,723,360</u>	<u>\$ 62,082</u>
Covered Payroll:	\$ 29,460,407	\$ 259,192
Sensitivity of the Net Pension Liability to changes in the discount rate:		
◆ Current discount rate: 7.75%	\$ 45,720,415	\$ 389,584
◆ 1% decrease in the discount rate: 6.75%	\$ 67,089,580	\$ 571,671
◆ 1% increase in the discount rate: 8.75%	\$ 27,632,329	\$ 235,455
Deferred Outflows of Resources and Deferred Inflows of Resources recognized in Pension Expense:		
◆ 2018	\$ 1,496,573	\$ 9,024
◆ 2019	\$ 1,435,267	\$ 7,828
◆ 2020	\$ (846,984)	\$ (11,363)
◆ 2021	\$ (1,579,014)	\$ (14,510)
◆ 2022	\$ -	\$ -
◆ Thereafter	\$ -	\$ -

Franklin Regional Retirement System
Financial Reporting and Disclosures Under GASB 67 and GASB 68 as of December 31, 2017

APPENDIX C - SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

Pension Amounts as of December 31, 2017	Franklin Regional Retirement System	Town of Hawley
◆ Current Proportionate Share		0.396999%
◆ Prior Proportionate Share		0.375046%
Beginning Net Pension Liability	\$ 52,538,226	\$ 197,042
Ending Net Pension Liability	\$ 45,720,415	\$ 181,510
Total Deferred Outflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 1,524,743	\$ 6,053
◆ Changes of Assumptions	3,349,686	13,298
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	1,871,428	11,531
◆ Total Deferred Outflows of Resources	<u>\$ 6,745,857</u>	<u>\$ 30,882</u>
Total Deferred Inflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 81,827	\$ 325
Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	4,286,760	17,018
◆ Changes of Assumptions	-	\$ -
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	1,871,428	\$ 1,792
◆ Total Deferred Inflows of Resources	<u>\$ 6,240,015</u>	<u>\$ 19,135</u>
Employer Pension Expense:		
◆ Proportionate Share of Plan Pension Expense	\$ 7,723,360	\$ 30,662
◆ Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	2,680
◆ Total Employer Pension Expense	<u>\$ 7,723,360</u>	<u>\$ 33,342</u>
Covered Payroll:	\$ 29,460,407	\$ 120,612
Sensitivity of the Net Pension Liability to changes in the discount rate:		
◆ Current discount rate: 7.75%	\$ 45,720,415	\$ 181,510
◆ 1% decrease in the discount rate: 6.75%	\$ 67,089,580	\$ 266,345
◆ 1% increase in the discount rate: 8.75%	\$ 27,632,329	\$ 109,700
Deferred Outflows of Resources and Deferred Inflows of Resources recognized in Pension Expense:		
◆ 2018	\$ 1,496,573	\$ 8,623
◆ 2019	\$ 1,435,267	\$ 8,734
◆ 2020	\$ (846,984)	\$ (350)
◆ 2021	\$ (1,579,014)	\$ (5,260)
◆ 2022	\$ -	\$ -
◆ Thereafter	\$ -	\$ -

Franklin Regional Retirement System
Financial Reporting and Disclosures Under GASB 67 and GASB 68 as of December 31, 2017

APPENDIX C - SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

Pension Amounts as of December 31, 2017	Franklin Regional Retirement System	Town of Heath
◆ Current Proportionate Share		0.861765%
◆ Prior Proportionate Share		0.836632%
Beginning Net Pension Liability	\$ 52,538,226	\$ 439,552
Ending Net Pension Liability	\$ 45,720,415	\$ 394,003
Total Deferred Outflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 1,524,743	\$ 13,140
◆ Changes of Assumptions	3,349,686	28,866
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	1,871,428	18,784
◆ Total Deferred Outflows of Resources	<u>\$ 6,745,857</u>	<u>\$ 60,790</u>
Total Deferred Inflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 81,827	\$ 705
Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	4,286,760	36,942
◆ Changes of Assumptions	-	\$ -
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	1,871,428	\$ 2,637
◆ Total Deferred Inflows of Resources	<u>\$ 6,240,015</u>	<u>\$ 40,284</u>
Employer Pension Expense:		
◆ Proportionate Share of Plan Pension Expense	\$ 7,723,360	\$ 66,557
◆ Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	4,919
◆ Total Employer Pension Expense	<u>\$ 7,723,360</u>	<u>\$ 71,476</u>
Covered Payroll:	\$ 29,460,407	\$ 262,963
Sensitivity of the Net Pension Liability to changes in the discount rate:		
◆ Current discount rate: 7.75%	\$ 45,720,415	\$ 394,003
◆ 1% decrease in the discount rate: 6.75%	\$ 67,089,580	\$ 578,155
◆ 1% increase in the discount rate: 8.75%	\$ 27,632,329	\$ 238,126
Deferred Outflows of Resources and Deferred Inflows of Resources recognized in Pension Expense:		
◆ 2018	\$ 1,496,573	\$ 17,814
◆ 2019	\$ 1,435,267	\$ 17,808
◆ 2020	\$ (846,984)	\$ (2,662)
◆ 2021	\$ (1,579,014)	\$ (12,454)
◆ 2022	\$ -	\$ -
◆ Thereafter	\$ -	\$ -

Franklin Regional Retirement System
Financial Reporting and Disclosures Under GASB 67 and GASB 68 as of December 31, 2017

APPENDIX C - SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

Pension Amounts as of December 31, 2017	Franklin Regional Retirement System	Town of Leverett
◆ Current Proportionate Share		3.139233%
◆ Prior Proportionate Share		3.149041%
Beginning Net Pension Liability	\$ 52,538,226	\$ 1,654,450
Ending Net Pension Liability	\$ 45,720,415	\$ 1,435,270
Total Deferred Outflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 1,524,743	\$ 47,865
◆ Changes of Assumptions	3,349,686	105,154
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	1,871,428	51,022
◆ Total Deferred Outflows of Resources	<u>\$ 6,745,857</u>	<u>\$ 204,041</u>
Total Deferred Inflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 81,827	\$ 2,569
Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	4,286,760	134,571
◆ Changes of Assumptions	-	\$ -
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	1,871,428	\$ 17,391
◆ Total Deferred Inflows of Resources	<u>\$ 6,240,015</u>	<u>\$ 154,531</u>
Employer Pension Expense:		
◆ Proportionate Share of Plan Pension Expense	\$ 7,723,360	\$ 242,454
◆ Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	24,056
◆ Total Employer Pension Expense	<u>\$ 7,723,360</u>	<u>\$ 266,510</u>
Covered Payroll:	\$ 29,460,407	\$ 888,659
Sensitivity of the Net Pension Liability to changes in the discount rate:		
◆ Current discount rate: 7.75%	\$ 45,720,415	\$ 1,435,270
◆ 1% decrease in the discount rate: 6.75%	\$ 67,089,580	\$ 2,106,098
◆ 1% increase in the discount rate: 8.75%	\$ 27,632,329	\$ 867,443
Deferred Outflows of Resources and Deferred Inflows of Resources recognized in Pension Expense:		
◆ 2018	\$ 1,496,573	\$ 71,037
◆ 2019	\$ 1,435,267	\$ 59,030
◆ 2020	\$ (846,984)	\$ (30,538)
◆ 2021	\$ (1,579,014)	\$ (50,019)
◆ 2022	\$ -	\$ -
◆ Thereafter	\$ -	\$ -

Franklin Regional Retirement System
Financial Reporting and Disclosures Under GASB 67 and GASB 68 as of December 31, 2017

APPENDIX C - SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

Pension Amounts as of December 31, 2017	Franklin Regional Retirement System	Town of Leyden
◆ Current Proportionate Share		0.426042%
◆ Prior Proportionate Share		0.394277%
Beginning Net Pension Liability	\$ 52,538,226	\$ 207,146
Ending Net Pension Liability	\$ 45,720,415	\$ 194,788
Total Deferred Outflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 1,524,743	\$ 6,496
◆ Changes of Assumptions	3,349,686	14,271
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	1,871,428	14,847
◆ Total Deferred Outflows of Resources	<u>\$ 6,745,857</u>	<u>\$ 35,614</u>
Total Deferred Inflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 81,827	\$ 349
Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	4,286,760	18,263
◆ Changes of Assumptions	-	\$ -
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	1,871,428	\$ 1,889
◆ Total Deferred Inflows of Resources	<u>\$ 6,240,015</u>	<u>\$ 20,501</u>
Employer Pension Expense:		
◆ Proportionate Share of Plan Pension Expense	\$ 7,723,360	\$ 32,905
◆ Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	3,577
◆ Total Employer Pension Expense	<u>\$ 7,723,360</u>	<u>\$ 36,482</u>
Covered Payroll:	\$ 29,460,407	\$ 128,739
Sensitivity of the Net Pension Liability to changes in the discount rate:		
◆ Current discount rate: 7.75%	\$ 45,720,415	\$ 194,788
◆ 1% decrease in the discount rate: 6.75%	\$ 67,089,580	\$ 285,830
◆ 1% increase in the discount rate: 8.75%	\$ 27,632,329	\$ 117,725
Deferred Outflows of Resources and Deferred Inflows of Resources recognized in Pension Expense:		
◆ 2018	\$ 1,496,573	\$ 9,955
◆ 2019	\$ 1,435,267	\$ 10,065
◆ 2020	\$ (846,984)	\$ 362
◆ 2021	\$ (1,579,014)	\$ (5,269)
◆ 2022	\$ -	\$ -
◆ Thereafter	\$ -	\$ -

Franklin Regional Retirement System
Financial Reporting and Disclosures Under GASB 67 and GASB 68 as of December 31, 2017

APPENDIX C - SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

Pension Amounts as of December 31, 2017	Franklin Regional Retirement System	Mahar Regional School District
◆ Current Proportionate Share		4.899509%
◆ Prior Proportionate Share		4.750469%
Beginning Net Pension Liability	\$ 52,538,226	\$ 2,495,812
Ending Net Pension Liability	\$ 45,720,415	\$ 2,240,076
Total Deferred Outflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 1,524,743	\$ 74,705
◆ Changes of Assumptions	3,349,686	164,118
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	1,871,428	116,704
◆ Total Deferred Outflows of Resources	<u>\$ 6,745,857</u>	<u>\$ 355,527</u>
Total Deferred Inflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 81,827	\$ 4,009
Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	4,286,760	210,030
◆ Changes of Assumptions	-	\$ -
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	1,871,428	\$ -
◆ Total Deferred Inflows of Resources	<u>\$ 6,240,015</u>	<u>\$ 214,039</u>
Employer Pension Expense:		
◆ Proportionate Share of Plan Pension Expense	\$ 7,723,360	\$ 378,407
◆ Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	48,965
◆ Total Employer Pension Expense	<u>\$ 7,723,360</u>	<u>\$ 427,372</u>
Covered Payroll:	\$ 29,460,407	\$ 1,490,440
Sensitivity of the Net Pension Liability to changes in the discount rate:		
◆ Current discount rate: 7.75%	\$ 45,720,415	\$ 2,240,076
◆ 1% decrease in the discount rate: 6.75%	\$ 67,089,580	\$ 3,287,060
◆ 1% increase in the discount rate: 8.75%	\$ 27,632,329	\$ 1,353,848
Deferred Outflows of Resources and Deferred Inflows of Resources recognized in Pension Expense:		
◆ 2018	\$ 1,496,573	\$ 122,291
◆ 2019	\$ 1,435,267	\$ 111,243
◆ 2020	\$ (846,984)	\$ (21,524)
◆ 2021	\$ (1,579,014)	\$ (70,522)
◆ 2022	\$ -	\$ -
◆ Thereafter	\$ -	\$ -

Franklin Regional Retirement System
Financial Reporting and Disclosures Under GASB 67 and GASB 68 as of December 31, 2017

APPENDIX C - SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

Pension Amounts as of December 31, 2017	Franklin Regional Retirement System	Mohawk Regional School District
◆ Current Proportionate Share		9.072818%
◆ Prior Proportionate Share		9.183603%
Beginning Net Pension Liability	\$ 52,538,226	\$ 4,824,902
Ending Net Pension Liability	\$ 45,720,415	\$ 4,148,130
Total Deferred Outflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 1,524,743	\$ 138,337
◆ Changes of Assumptions	3,349,686	303,911
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	1,871,428	62,919
◆ Total Deferred Outflows of Resources	<u>\$ 6,745,857</u>	<u>\$ 505,167</u>
Total Deferred Inflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 81,827	\$ 7,424
Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	4,286,760	388,930
◆ Changes of Assumptions	-	\$ -
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	1,871,428	\$ 107,951
◆ Total Deferred Inflows of Resources	<u>\$ 6,240,015</u>	<u>\$ 504,305</u>
Employer Pension Expense:		
◆ Proportionate Share of Plan Pension Expense	\$ 7,723,360	\$ 700,726
◆ Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	(862)
◆ Total Employer Pension Expense	<u>\$ 7,723,360</u>	<u>\$ 699,864</u>
Covered Payroll:	\$ 29,460,407	\$ 2,761,450
Sensitivity of the Net Pension Liability to changes in the discount rate:		
◆ Current discount rate: 7.75%	\$ 45,720,415	\$ 4,148,130
◆ 1% decrease in the discount rate: 6.75%	\$ 67,089,580	\$ 6,086,915
◆ 1% increase in the discount rate: 8.75%	\$ 27,632,329	\$ 2,507,031
Deferred Outflows of Resources and Deferred Inflows of Resources recognized in Pension Expense:		
◆ 2018	\$ 1,496,573	\$ 134,918
◆ 2019	\$ 1,435,267	\$ 116,924
◆ 2020	\$ (846,984)	\$ (102,634)
◆ 2021	\$ (1,579,014)	\$ (148,346)
◆ 2022	\$ -	\$ -
◆ Thereafter	\$ -	\$ -

Franklin Regional Retirement System
Financial Reporting and Disclosures Under GASB 67 and GASB 68 as of December 31, 2017

APPENDIX C - SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

Pension Amounts as of December 31, 2017	Franklin Regional Retirement System	Town of Monroe
◆ Current Proportionate Share		0.315791%
◆ Prior Proportionate Share		0.317334%
Beginning Net Pension Liability	\$ 52,538,226	\$ 166,722
Ending Net Pension Liability	\$ 45,720,415	\$ 144,381
Total Deferred Outflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 1,524,743	\$ 4,815
◆ Changes of Assumptions	3,349,686	10,578
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	1,871,428	2,402
◆ Total Deferred Outflows of Resources	<u>\$ 6,745,857</u>	<u>\$ 17,795</u>
Total Deferred Inflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 81,827	\$ 258
Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	4,286,760	13,537
◆ Changes of Assumptions	-	\$ -
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	1,871,428	\$ 673
◆ Total Deferred Inflows of Resources	<u>\$ 6,240,015</u>	<u>\$ 14,468</u>
Employer Pension Expense:		
◆ Proportionate Share of Plan Pension Expense	\$ 7,723,360	\$ 24,390
◆ Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	1,228
◆ Total Employer Pension Expense	<u>\$ 7,723,360</u>	<u>\$ 25,618</u>
Covered Payroll:	\$ 29,460,407	\$ 93,465
Sensitivity of the Net Pension Liability to changes in the discount rate:		
◆ Current discount rate: 7.75%	\$ 45,720,415	\$ 144,381
◆ 1% decrease in the discount rate: 6.75%	\$ 67,089,580	\$ 211,863
◆ 1% increase in the discount rate: 8.75%	\$ 27,632,329	\$ 87,260
Deferred Outflows of Resources and Deferred Inflows of Resources recognized in Pension Expense:		
◆ 2018	\$ 1,496,573	\$ 5,954
◆ 2019	\$ 1,435,267	\$ 5,287
◆ 2020	\$ (846,984)	\$ (2,858)
◆ 2021	\$ (1,579,014)	\$ (5,056)
◆ 2022	\$ -	\$ -
◆ Thereafter	\$ -	\$ -

Franklin Regional Retirement System
Financial Reporting and Disclosures Under GASB 67 and GASB 68 as of December 31, 2017

APPENDIX C - SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

Pension Amounts as of December 31, 2017	Franklin Regional Retirement System	Town of New Salem
◆ Current Proportionate Share		0.735897%
◆ Prior Proportionate Share		0.701979%
Beginning Net Pension Liability	\$ 52,538,226	\$ 368,807
Ending Net Pension Liability	\$ 45,720,415	\$ 336,455
Total Deferred Outflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 1,524,743	\$ 11,221
◆ Changes of Assumptions	3,349,686	24,650
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	1,871,428	17,320
◆ Total Deferred Outflows of Resources	<u>\$ 6,745,857</u>	<u>\$ 53,191</u>
Total Deferred Inflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 81,827	\$ 602
Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	4,286,760	31,546
◆ Changes of Assumptions	-	\$ -
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	1,871,428	\$ -
◆ Total Deferred Inflows of Resources	<u>\$ 6,240,015</u>	<u>\$ 32,148</u>
Employer Pension Expense:		
◆ Proportionate Share of Plan Pension Expense	\$ 7,723,360	\$ 56,836
◆ Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	5,996
◆ Total Employer Pension Expense	<u>\$ 7,723,360</u>	<u>\$ 62,832</u>
Covered Payroll:	\$ 29,460,407	\$ 225,317
Sensitivity of the Net Pension Liability to changes in the discount rate:		
◆ Current discount rate: 7.75%	\$ 45,720,415	\$ 336,455
◆ 1% decrease in the discount rate: 6.75%	\$ 67,089,580	\$ 493,710
◆ 1% increase in the discount rate: 8.75%	\$ 27,632,329	\$ 203,345
Deferred Outflows of Resources and Deferred Inflows of Resources recognized in Pension Expense:		
◆ 2018	\$ 1,496,573	\$ 17,007
◆ 2019	\$ 1,435,267	\$ 16,183
◆ 2020	\$ (846,984)	\$ (2,085)
◆ 2021	\$ (1,579,014)	\$ (10,062)
◆ 2022	\$ -	\$ -
◆ Thereafter	\$ -	\$ -

Franklin Regional Retirement System
Financial Reporting and Disclosures Under GASB 67 and GASB 68 as of December 31, 2017

APPENDIX C - SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

Pension Amounts as of December 31, 2017	Franklin Regional Retirement System	New Salem/Wendell Union School District
◆ Current Proportionate Share		2.033596%
◆ Prior Proportionate Share		2.008605%
Beginning Net Pension Liability	\$ 52,538,226	\$ 1,055,285
Ending Net Pension Liability	\$ 45,720,415	\$ 929,768
Total Deferred Outflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 1,524,743	\$ 31,007
◆ Changes of Assumptions	3,349,686	68,119
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	1,871,428	25,593
◆ Total Deferred Outflows of Resources	<u>\$ 6,745,857</u>	<u>\$ 124,719</u>
Total Deferred Inflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 81,827	\$ 1,664
◆ Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	4,286,760	87,175
◆ Changes of Assumptions	-	\$ -
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	1,871,428	\$ 4,383
◆ Total Deferred Inflows of Resources	<u>\$ 6,240,015</u>	<u>\$ 93,222</u>
Employer Pension Expense:		
◆ Proportionate Share of Plan Pension Expense	\$ 7,723,360	\$ 157,062
◆ Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	10,970
◆ Total Employer Pension Expense	<u>\$ 7,723,360</u>	<u>\$ 168,032</u>
Covered Payroll:	\$ 29,460,407	\$ 574,342
Sensitivity of the Net Pension Liability to changes in the discount rate:		
◆ Current discount rate: 7.75%	\$ 45,720,415	\$ 929,768
◆ 1% decrease in the discount rate: 6.75%	\$ 67,089,580	\$ 1,364,331
◆ 1% increase in the discount rate: 8.75%	\$ 27,632,329	\$ 561,930
Deferred Outflows of Resources and Deferred Inflows of Resources recognized in Pension Expense:		
◆ 2018	\$ 1,496,573	\$ 41,402
◆ 2019	\$ 1,435,267	\$ 36,774
◆ 2020	\$ (846,984)	\$ (15,715)
◆ 2021	\$ (1,579,014)	\$ (30,964)
◆ 2022	\$ -	\$ -
◆ Thereafter	\$ -	\$ -

Franklin Regional Retirement System
Financial Reporting and Disclosures Under GASB 67 and GASB 68 as of December 31, 2017

APPENDIX C - SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

Pension Amounts as of December 31, 2017	Franklin Regional Retirement System	Town of Northfield
◆ Current Proportionate Share		2.842043%
◆ Prior Proportionate Share		2.782029%
Beginning Net Pension Liability	\$ 52,538,226	\$ 1,461,629
Ending Net Pension Liability	\$ 45,720,415	\$ 1,299,394
Total Deferred Outflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 1,524,743	\$ 43,334
◆ Changes of Assumptions	3,349,686	95,200
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	1,871,428	48,697
◆ Total Deferred Outflows of Resources	<u>\$ 6,745,857</u>	<u>\$ 187,231</u>
Total Deferred Inflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 81,827	\$ 2,326
Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	4,286,760	121,832
◆ Changes of Assumptions	-	\$ -
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	1,871,428	\$ -
◆ Total Deferred Inflows of Resources	<u>\$ 6,240,015</u>	<u>\$ 124,158</u>
Employer Pension Expense:		
◆ Proportionate Share of Plan Pension Expense	\$ 7,723,360	\$ 219,501
◆ Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	22,798
◆ Total Employer Pension Expense	<u>\$ 7,723,360</u>	<u>\$ 242,299</u>
Covered Payroll:	\$ 29,460,407	\$ 771,158
Sensitivity of the Net Pension Liability to changes in the discount rate:		
◆ Current discount rate: 7.75%	\$ 45,720,415	\$ 1,299,394
◆ 1% decrease in the discount rate: 6.75%	\$ 67,089,580	\$ 1,906,715
◆ 1% increase in the discount rate: 8.75%	\$ 27,632,329	\$ 785,323
Deferred Outflows of Resources and Deferred Inflows of Resources recognized in Pension Expense:		
◆ 2018	\$ 1,496,573	\$ 65,332
◆ 2019	\$ 1,435,267	\$ 58,028
◆ 2020	\$ (846,984)	\$ (18,166)
◆ 2021	\$ (1,579,014)	\$ (42,121)
◆ 2022	\$ -	\$ -
◆ Thereafter	\$ -	\$ -

Franklin Regional Retirement System
Financial Reporting and Disclosures Under GASB 67 and GASB 68 as of December 31, 2017

APPENDIX C - SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

Pension Amounts as of December 31, 2017	Franklin Regional Retirement System	Town of Orange
◆ Current Proportionate Share		14.636954%
◆ Prior Proportionate Share		15.241822%
Beginning Net Pension Liability	\$ 52,538,226	\$ 8,007,780
Ending Net Pension Liability	\$ 45,720,415	\$ 6,692,078
Total Deferred Outflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 1,524,743	\$ 223,177
◆ Changes of Assumptions	3,349,686	490,292
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	1,871,428	409,779
◆ Total Deferred Outflows of Resources	<u>\$ 6,745,857</u>	<u>\$ 1,123,248</u>
Total Deferred Inflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 81,827	\$ 11,978
Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	4,286,760	627,454
◆ Changes of Assumptions	-	\$ -
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	1,871,428	\$ 382,249
◆ Total Deferred Inflows of Resources	<u>\$ 6,240,015</u>	<u>\$ 1,021,681</u>
Employer Pension Expense:		
◆ Proportionate Share of Plan Pension Expense	\$ 7,723,360	\$ 1,130,466
◆ Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	116,512
◆ Total Employer Pension Expense	<u>\$ 7,723,360</u>	<u>\$ 1,246,978</u>
Covered Payroll:	\$ 29,460,407	\$ 4,069,644
Sensitivity of the Net Pension Liability to changes in the discount rate:		
◆ Current discount rate: 7.75%	\$ 45,720,415	\$ 6,692,076
◆ 1% decrease in the discount rate: 6.75%	\$ 67,089,580	\$ 9,819,871
◆ 1% increase in the discount rate: 8.75%	\$ 27,632,329	\$ 4,044,531
Deferred Outflows of Resources and Deferred Inflows of Resources recognized in Pension Expense:		
◆ 2018	\$ 1,496,573	\$ 335,568
◆ 2019	\$ 1,435,267	\$ 245,623
◆ 2020	\$ (846,984)	\$ (220,734)
◆ 2021	\$ (1,579,014)	\$ (258,890)
◆ 2022	\$ -	\$ -
◆ Thereafter	\$ -	\$ -

Franklin Regional Retirement System
Financial Reporting and Disclosures Under GASB 67 and GASB 68 as of December 31, 2017

APPENDIX C - SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

Pension Amounts as of December 31, 2017	Franklin Regional Retirement System	Orange Housing Authority
◆ Current Proportionate Share		0.145246%
◆ Prior Proportionate Share		0.153851%
Beginning Net Pension Liability	\$ 52,538,226	\$ 80,831
Ending Net Pension Liability	\$ 45,720,415	\$ 66,407
Total Deferred Outflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 1,524,743	\$ 2,215
◆ Changes of Assumptions	3,349,686	4,865
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	1,871,428	2,055
◆ Total Deferred Outflows of Resources	<u>\$ 6,745,857</u>	<u>\$ 9,135</u>
Total Deferred Inflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 81,827	\$ 119
Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	4,286,760	6,226
◆ Changes of Assumptions	-	\$ -
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	1,871,428	\$ 3,641
◆ Total Deferred Inflows of Resources	<u>\$ 6,240,015</u>	<u>\$ 9,986</u>
Employer Pension Expense:		
◆ Proportionate Share of Plan Pension Expense	\$ 7,723,360	\$ 11,218
◆ Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	(464)
◆ Total Employer Pension Expense	<u>\$ 7,723,360</u>	<u>\$ 10,754</u>
Covered Payroll:	\$ 29,460,407	\$ 45,279
Sensitivity of the Net Pension Liability to changes in the discount rate:		
◆ Current discount rate: 7.75%	\$ 45,720,415	\$ 66,407
◆ 1% decrease in the discount rate: 6.75%	\$ 67,089,580	\$ 97,445
◆ 1% increase in the discount rate: 8.75%	\$ 27,632,329	\$ 40,135
Deferred Outflows of Resources and Deferred Inflows of Resources recognized in Pension Expense:		
◆ 2018	\$ 1,496,573	\$ 1,708
◆ 2019	\$ 1,435,267	\$ 1,763
◆ 2020	\$ (846,984)	\$ (1,633)
◆ 2021	\$ (1,579,014)	\$ (2,689)
◆ 2022	\$ -	\$ -
◆ Thereafter	\$ -	\$ -

Franklin Regional Retirement System
Financial Reporting and Disclosures Under GASB 67 and GASB 68 as of December 31, 2017

APPENDIX C - SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

Pension Amounts as of December 31, 2017	Franklin Regional Retirement System	Pioneer Valley Regional School District
◆ Current Proportionate Share		7.248417%
◆ Prior Proportionate Share		7.102702%
Beginning Net Pension Liability	\$ 52,538,226	\$ 3,731,634
Ending Net Pension Liability	\$ 45,720,415	\$ 3,314,006
Total Deferred Outflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 1,524,743	\$ 110,520
◆ Changes of Assumptions	3,349,686	242,799
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	1,871,428	113,935
◆ Total Deferred Outflows of Resources	<u>\$ 6,745,857</u>	<u>\$ 467,254</u>
Total Deferred Inflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 81,827	\$ 5,931
◆ Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	4,286,760	310,722
◆ Changes of Assumptions	-	\$ -
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	1,871,428	\$ -
◆ Total Deferred Inflows of Resources	<u>\$ 6,240,015</u>	<u>\$ 316,653</u>
Employer Pension Expense:		
◆ Proportionate Share of Plan Pension Expense	\$ 7,723,360	\$ 559,821
◆ Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	51,413
◆ Total Employer Pension Expense	<u>\$ 7,723,360</u>	<u>\$ 611,234</u>
Covered Payroll:	\$ 29,460,407	\$ 2,099,637
Sensitivity of the Net Pension Liability to changes in the discount rate:		
◆ Current discount rate: 7.75%	\$ 45,720,415	\$ 3,314,006
◆ 1% decrease in the discount rate: 6.75%	\$ 67,089,580	\$ 4,862,932
◆ 1% increase in the discount rate: 8.75%	\$ 27,632,329	\$ 2,002,906
Deferred Outflows of Resources and Deferred Inflows of Resources recognized in Pension Expense:		
◆ 2018	\$ 1,496,573	\$ 159,891
◆ 2019	\$ 1,435,267	\$ 144,109
◆ 2020	\$ (846,984)	\$ (45,635)
◆ 2021	\$ (1,579,014)	\$ (107,764)
◆ 2022	\$ -	\$ -
◆ Thereafter	\$ -	\$ -

Franklin Regional Retirement System
Financial Reporting and Disclosures Under GASB 67 and GASB 68 as of December 31, 2017

APPENDIX C - SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

Pension Amounts as of December 31, 2017	Franklin Regional Retirement System	Town of Rowe
◆ Current Proportionate Share		2.147627%
◆ Prior Proportionate Share		2.142595%
Beginning Net Pension Liability	\$ 52,538,226	\$ 1,125,681
Ending Net Pension Liability	\$ 45,720,415	\$ 981,904
Total Deferred Outflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 1,524,743	\$ 32,746
◆ Changes of Assumptions	3,349,686	71,939
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	1,871,428	28,974
◆ Total Deferred Outflows of Resources	<u>\$ 6,745,857</u>	<u>\$ 133,659</u>
Total Deferred Inflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 81,827	\$ 1,757
◆ Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	4,286,760	92,064
◆ Changes of Assumptions	-	\$ -
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	1,871,428	\$ 420
◆ Total Deferred Inflows of Resources	<u>\$ 6,240,015</u>	<u>\$ 94,241</u>
Employer Pension Expense:		
◆ Proportionate Share of Plan Pension Expense	\$ 7,723,360	\$ 165,869
◆ Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	16,653
◆ Total Employer Pension Expense	<u>\$ 7,723,360</u>	<u>\$ 182,522</u>
Covered Payroll:	\$ 29,460,407	\$ 600,470
Sensitivity of the Net Pension Liability to changes in the discount rate:		
◆ Current discount rate: 7.75%	\$ 45,720,415	\$ 981,904
◆ 1% decrease in the discount rate: 6.75%	\$ 67,089,580	\$ 1,440,834
◆ 1% increase in the discount rate: 8.75%	\$ 27,632,329	\$ 593,439
Deferred Outflows of Resources and Deferred Inflows of Resources recognized in Pension Expense:		
◆ 2018	\$ 1,496,573	\$ 48,796
◆ 2019	\$ 1,435,267	\$ 42,089
◆ 2020	\$ (846,984)	\$ (17,787)
◆ 2021	\$ (1,579,014)	\$ (33,680)
◆ 2022	\$ -	\$ -
◆ Thereafter	\$ -	\$ -

Franklin Regional Retirement System
Financial Reporting and Disclosures Under GASB 67 and GASB 68 as of December 31, 2017

APPENDIX C - SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

Pension Amounts as of December 31, 2017	Franklin Regional Retirement System	Town of Shelburne
◆ Current Proportionate Share		1.868793%
◆ Prior Proportionate Share		1.865578%
Beginning Net Pension Liability	\$ 52,538,226	\$ 980,142
Ending Net Pension Liability	\$ 45,720,415	\$ 854,420
Total Deferred Outflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 1,524,743	\$ 28,494
◆ Changes of Assumptions	3,349,686	62,599
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	1,871,428	19,666
◆ Total Deferred Outflows of Resources	<u>\$ 6,745,857</u>	<u>\$ 110,759</u>
Total Deferred Inflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 81,827	\$ 1,529
Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	4,286,760	80,111
◆ Changes of Assumptions	-	\$ -
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	1,871,428	\$ -
◆ Total Deferred Inflows of Resources	<u>\$ 6,240,015</u>	<u>\$ 81,640</u>
Employer Pension Expense:		
◆ Proportionate Share of Plan Pension Expense	\$ 7,723,360	\$ 144,334
◆ Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	11,181
◆ Total Employer Pension Expense	<u>\$ 7,723,360</u>	<u>\$ 155,515</u>
Covered Payroll:	\$ 29,460,407	\$ 568,466
Sensitivity of the Net Pension Liability to changes in the discount rate:		
◆ Current discount rate: 7.75%	\$ 45,720,415	\$ 854,420
◆ 1% decrease in the discount rate: 6.75%	\$ 67,089,580	\$ 1,253,765
◆ 1% increase in the discount rate: 8.75%	\$ 27,632,329	\$ 516,391
Deferred Outflows of Resources and Deferred Inflows of Resources recognized in Pension Expense:		
◆ 2018	\$ 1,496,573	\$ 39,148
◆ 2019	\$ 1,435,267	\$ 34,580
◆ 2020	\$ (846,984)	\$ (15,248)
◆ 2021	\$ (1,579,014)	\$ (29,361)
◆ 2022	\$ -	\$ -
◆ Thereafter	\$ -	\$ -

Franklin Regional Retirement System
Financial Reporting and Disclosures Under GASB 67 and GASB 68 as of December 31, 2017

APPENDIX C - SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

Pension Amounts as of December 31, 2017	Franklin Regional Retirement System	Shelburne Falls Fire District
◆ Current Proportionate Share		0.648752%
◆ Prior Proportionate Share		0.634669%
Beginning Net Pension Liability	\$ 52,538,226	\$ 333,444
Ending Net Pension Liability	\$ 45,720,415	\$ 296,612
Total Deferred Outflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 1,524,743	\$ 9,892
◆ Changes of Assumptions	3,349,686	21,731
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	1,871,428	4,773
◆ Total Deferred Outflows of Resources	<u>\$ 6,745,857</u>	<u>\$ 36,396</u>
Total Deferred Inflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 81,827	\$ 531
Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	4,286,760	27,810
◆ Changes of Assumptions	-	\$ -
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	1,871,428	\$ 3,497
◆ Total Deferred Inflows of Resources	<u>\$ 6,240,015</u>	<u>\$ 31,838</u>
Employer Pension Expense:		
◆ Proportionate Share of Plan Pension Expense	\$ 7,723,360	\$ 50,105
◆ Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	(658)
◆ Total Employer Pension Expense	<u>\$ 7,723,360</u>	<u>\$ 49,447</u>
Covered Payroll:	\$ 29,460,407	\$ 196,559
Sensitivity of the Net Pension Liability to changes in the discount rate:		
◆ Current discount rate: 7.75%	\$ 45,720,415	\$ 296,612
◆ 1% decrease in the discount rate: 6.75%	\$ 67,089,580	\$ 435,245
◆ 1% increase in the discount rate: 8.75%	\$ 27,632,329	\$ 179,265
Deferred Outflows of Resources and Deferred Inflows of Resources recognized in Pension Expense:		
◆ 2018	\$ 1,496,573	\$ 9,052
◆ 2019	\$ 1,435,267	\$ 9,286
◆ 2020	\$ (846,984)	\$ (4,183)
◆ 2021	\$ (1,579,014)	\$ (9,597)
◆ 2022	\$ -	\$ -
◆ Thereafter	\$ -	\$ -

Franklin Regional Retirement System
Financial Reporting and Disclosures Under GASB 67 and GASB 68 as of December 31, 2017

APPENDIX C - SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

Pension Amounts as of December 31, 2017	Franklin Regional Retirement System	Town of Shutesbury
◆ Current Proportionate Share		2.808022%
◆ Prior Proportionate Share		2.798350%
Beginning Net Pension Liability	\$ 52,538,226	\$ 1,470,203
Ending Net Pension Liability	\$ 45,720,415	\$ 1,283,839
Total Deferred Outflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 1,524,743	\$ 42,815
◆ Changes of Assumptions	3,349,686	94,060
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	1,871,428	25,091
◆ Total Deferred Outflows of Resources	<u>\$ 6,745,857</u>	<u>\$ 161,966</u>
Total Deferred Inflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 81,827	\$ 2,298
Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	4,286,760	120,373
◆ Changes of Assumptions	-	\$ -
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	1,871,428	\$ 5,583
◆ Total Deferred Inflows of Resources	<u>\$ 6,240,015</u>	<u>\$ 128,254</u>
Employer Pension Expense:		
◆ Proportionate Share of Plan Pension Expense	\$ 7,723,360	\$ 216,874
◆ Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	11,809
◆ Total Employer Pension Expense	<u>\$ 7,723,360</u>	<u>\$ 228,683</u>
Covered Payroll:	\$ 29,460,407	\$ 855,501
Sensitivity of the Net Pension Liability to changes in the discount rate:		
◆ Current discount rate: 7.75%	\$ 45,720,415	\$ 1,283,839
◆ 1% decrease in the discount rate: 6.75%	\$ 67,089,580	\$ 1,883,890
◆ 1% increase in the discount rate: 8.75%	\$ 27,632,329	\$ 775,922
Deferred Outflows of Resources and Deferred Inflows of Resources recognized in Pension Expense:		
◆ 2018	\$ 1,496,573	\$ 53,832
◆ 2019	\$ 1,435,267	\$ 47,801
◆ 2020	\$ (846,984)	\$ (24,025)
◆ 2021	\$ (1,579,014)	\$ (43,896)
◆ 2022	\$ -	\$ -
◆ Thereafter	\$ -	\$ -

Franklin Regional Retirement System
Financial Reporting and Disclosures Under GASB 67 and GASB 68 as of December 31, 2017

APPENDIX C - SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

Pension Amounts as of December 31, 2017	Franklin Regional Retirement System	South Deerfield Fire District
◆ Current Proportionate Share		0.193651%
◆ Prior Proportionate Share		0.182715%
Beginning Net Pension Liability	\$ 52,538,226	\$ 95,995
Ending Net Pension Liability	\$ 45,720,415	\$ 88,538
Total Deferred Outflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 1,524,743	\$ 2,953
◆ Changes of Assumptions	3,349,686	6,487
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	1,871,428	4,119
◆ Total Deferred Outflows of Resources	<u>\$ 6,745,857</u>	<u>\$ 13,559</u>
Total Deferred Inflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 81,827	\$ 158
Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	4,286,760	8,301
◆ Changes of Assumptions	-	\$ -
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	1,871,428	\$ 83
◆ Total Deferred Inflows of Resources	<u>\$ 6,240,015</u>	<u>\$ 8,542</u>
Employer Pension Expense:		
◆ Proportionate Share of Plan Pension Expense	\$ 7,723,360	\$ 14,956
◆ Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	1,283
◆ Total Employer Pension Expense	<u>\$ 7,723,360</u>	<u>\$ 16,239</u>
Covered Payroll:	\$ 29,460,407	\$ 57,567
Sensitivity of the Net Pension Liability to changes in the discount rate:		
◆ Current discount rate: 7.75%	\$ 45,720,415	\$ 88,538
◆ 1% decrease in the discount rate: 6.75%	\$ 67,089,580	\$ 129,920
◆ 1% increase in the discount rate: 8.75%	\$ 27,632,329	\$ 53,510
Deferred Outflows of Resources and Deferred Inflows of Resources recognized in Pension Expense:		
◆ 2018	\$ 1,496,573	\$ 4,180
◆ 2019	\$ 1,435,267	\$ 3,981
◆ 2020	\$ (846,984)	\$ (590)
◆ 2021	\$ (1,579,014)	\$ (2,554)
◆ 2022	\$ -	\$ -
◆ Thereafter	\$ -	\$ -

Franklin Regional Retirement System
Financial Reporting and Disclosures Under GASB 67 and GASB 68 as of December 31, 2017

APPENDIX C - SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

Pension Amounts as of December 31, 2017	Franklin Regional Retirement System	South Deerfield Water Supply District
◆ Current Proportionate Share		0.464766%
◆ Prior Proportionate Share		0.490434%
Beginning Net Pension Liability	\$ 52,538,226	\$ 257,665
Ending Net Pension Liability	\$ 45,720,415	\$ 212,493
Total Deferred Outflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 1,524,743	\$ 7,086
◆ Changes of Assumptions	3,349,686	15,568
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	1,871,428	12,815
◆ Total Deferred Outflows of Resources	<u>\$ 6,745,857</u>	<u>\$ 35,469</u>
Total Deferred Inflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 81,827	\$ 380
Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	4,286,760	19,923
◆ Changes of Assumptions	-	\$ -
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	1,871,428	\$ 8,698
◆ Total Deferred Inflows of Resources	<u>\$ 6,240,015</u>	<u>\$ 29,001</u>
Employer Pension Expense:		
◆ Proportionate Share of Plan Pension Expense	\$ 7,723,360	\$ 35,896
◆ Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	4,777
◆ Total Employer Pension Expense	<u>\$ 7,723,360</u>	<u>\$ 40,673</u>
Covered Payroll:	\$ 29,460,407	\$ 142,249
Sensitivity of the Net Pension Liability to changes in the discount rate:		
◆ Current discount rate: 7.75%	\$ 45,720,415	\$ 212,493
◆ 1% decrease in the discount rate: 6.75%	\$ 67,089,580	\$ 311,809
◆ 1% increase in the discount rate: 8.75%	\$ 27,632,329	\$ 128,426
Deferred Outflows of Resources and Deferred Inflows of Resources recognized in Pension Expense:		
◆ 2018	\$ 1,496,573	\$ 11,733
◆ 2019	\$ 1,435,267	\$ 9,291
◆ 2020	\$ (846,984)	\$ (6,038)
◆ 2021	\$ (1,579,014)	\$ (8,518)
◆ 2022	\$ -	\$ -
◆ Thereafter	\$ -	\$ -

Franklin Regional Retirement System
Financial Reporting and Disclosures Under GASB 67 and GASB 68 as of December 31, 2017

APPENDIX C - SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

Pension Amounts as of December 31, 2017	Franklin Regional Retirement System	Town of Sunderland
◆ Current Proportionate Share		3.737570%
◆ Prior Proportionate Share		3.711890%
Beginning Net Pension Liability	\$ 52,538,226	\$ 1,950,161
Ending Net Pension Liability	\$ 45,720,415	\$ 1,708,832
Total Deferred Outflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 1,524,743	\$ 56,988
◆ Changes of Assumptions	3,349,686	125,197
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	1,871,428	21,428
◆ Total Deferred Outflows of Resources	<u>\$ 6,745,857</u>	<u>\$ 203,613</u>
Total Deferred Inflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 81,827	\$ 3,058
Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	4,286,760	160,221
◆ Changes of Assumptions	-	\$ -
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	1,871,428	\$ 27,330
◆ Total Deferred Inflows of Resources	<u>\$ 6,240,015</u>	<u>\$ 190,609</u>
Employer Pension Expense:		
◆ Proportionate Share of Plan Pension Expense	\$ 7,723,360	\$ 288,666
◆ Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	(632)
◆ Total Employer Pension Expense	<u>\$ 7,723,360</u>	<u>\$ 288,034</u>
Covered Payroll:	\$ 29,460,407	\$ 1,136,084
Sensitivity of the Net Pension Liability to changes in the discount rate:		
◆ Current discount rate: 7.75%	\$ 45,720,415	\$ 1,708,832
◆ 1% decrease in the discount rate: 6.75%	\$ 67,089,580	\$ 2,507,520
◆ 1% increase in the discount rate: 8.75%	\$ 27,632,329	\$ 1,032,778
Deferred Outflows of Resources and Deferred Inflows of Resources recognized in Pension Expense:		
◆ 2018	\$ 1,496,573	\$ 55,303
◆ 2019	\$ 1,435,267	\$ 50,497
◆ 2020	\$ (846,984)	\$ (34,959)
◆ 2021	\$ (1,579,014)	\$ (57,837)
◆ 2022	\$ -	\$ -
◆ Thereafter	\$ -	\$ -

Franklin Regional Retirement System
Financial Reporting and Disclosures Under GASB 67 and GASB 68 as of December 31, 2017

APPENDIX C - SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

Pension Amounts as of December 31, 2017	Franklin Regional Retirement System	Town of Warwick
◆ Current Proportionate Share		0.793982%
◆ Prior Proportionate Share		0.788537%
Beginning Net Pension Liability	\$ 52,538,226	\$ 414,283
Ending Net Pension Liability	\$ 45,720,415	\$ 363,012
Total Deferred Outflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 1,524,743	\$ 12,106
◆ Changes of Assumptions	3,349,686	26,596
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	1,871,428	4,443
◆ Total Deferred Outflows of Resources	<u>\$ 6,745,857</u>	<u>\$ 43,145</u>
Total Deferred Inflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 81,827	\$ 650
Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	4,286,760	34,036
◆ Changes of Assumptions	-	\$ -
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	1,871,428	\$ 4,634
◆ Total Deferred Inflows of Resources	<u>\$ 6,240,015</u>	<u>\$ 39,320</u>
Employer Pension Expense:		
◆ Proportionate Share of Plan Pension Expense	\$ 7,723,360	\$ 61,322
◆ Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	262
◆ Total Employer Pension Expense	<u>\$ 7,723,360</u>	<u>\$ 61,584</u>
Covered Payroll:	\$ 29,460,407	\$ 240,616
Sensitivity of the Net Pension Liability to changes in the discount rate:		
◆ Current discount rate: 7.75%	\$ 45,720,415	\$ 363,012
◆ 1% decrease in the discount rate: 6.75%	\$ 67,089,580	\$ 532,679
◆ 1% increase in the discount rate: 8.75%	\$ 27,632,329	\$ 219,396
Deferred Outflows of Resources and Deferred Inflows of Resources recognized in Pension Expense:		
◆ 2018	\$ 1,496,573	\$ 12,147
◆ 2019	\$ 1,435,267	\$ 11,144
◆ 2020	\$ (846,984)	\$ (7,178)
◆ 2021	\$ (1,579,014)	\$ (12,288)
◆ 2022	\$ -	\$ -
◆ Thereafter	\$ -	\$ -

Franklin Regional Retirement System
Financial Reporting and Disclosures Under GASB 67 and GASB 68 as of December 31, 2017

APPENDIX C - SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

Pension Amounts as of December 31, 2017	Franklin Regional Retirement System	Town of Wendell
◆ Current Proportionate Share		0.765345%
◆ Prior Proportionate Share		0.719951%
Beginning Net Pension Liability	\$ 52,538,226	\$ 378,249
Ending Net Pension Liability	\$ 45,720,415	\$ 349,919
Total Deferred Outflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 1,524,743	\$ 11,670
◆ Changes of Assumptions	3,349,686	25,637
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	1,871,428	31,775
◆ Total Deferred Outflows of Resources	<u>\$ 6,745,857</u>	<u>\$ 69,082</u>
Total Deferred Inflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 81,827	\$ 626
Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	4,286,760	32,808
◆ Changes of Assumptions	-	\$ -
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	1,871,428	\$ -
◆ Total Deferred Inflows of Resources	<u>\$ 6,240,015</u>	<u>\$ 33,434</u>
Employer Pension Expense:		
◆ Proportionate Share of Plan Pension Expense	\$ 7,723,360	\$ 59,110
◆ Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	12,668
◆ Total Employer Pension Expense	<u>\$ 7,723,360</u>	<u>\$ 71,778</u>
Covered Payroll:	\$ 29,460,407	\$ 213,354
Sensitivity of the Net Pension Liability to changes in the discount rate:		
◆ Current discount rate: 7.75%	\$ 45,720,415	\$ 349,919
◆ 1% decrease in the discount rate: 6.75%	\$ 67,089,580	\$ 513,467
◆ 1% increase in the discount rate: 8.75%	\$ 27,632,329	\$ 211,483
Deferred Outflows of Resources and Deferred Inflows of Resources recognized in Pension Expense:		
◆ 2018	\$ 1,496,573	\$ 24,122
◆ 2019	\$ 1,435,267	\$ 21,935
◆ 2020	\$ (846,984)	\$ (409)
◆ 2021	\$ (1,579,014)	\$ (10,000)
◆ 2022	\$ -	\$ -
◆ Thereafter	\$ -	\$ -

Franklin Regional Retirement System
Financial Reporting and Disclosures Under GASB 67 and GASB 68 as of December 31, 2017

APPENDIX C - SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

Pension Amounts as of December 31, 2017	Franklin Regional Retirement System	Town of Whately
◆ Current Proportionate Share		2.720877%
◆ Prior Proportionate Share		2.625268%
Beginning Net Pension Liability	\$ 52,538,226	\$ 1,379,269
Ending Net Pension Liability	\$ 45,720,415	\$ 1,243,996
Total Deferred Outflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 1,524,743	\$ 41,486
◆ Changes of Assumptions	3,349,686	91,141
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	1,871,428	48,225
◆ Total Deferred Outflows of Resources	<u>\$ 6,745,857</u>	<u>\$ 180,852</u>
Total Deferred Inflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 81,827	\$ 2,226
Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	4,286,760	116,637
◆ Changes of Assumptions	-	\$ -
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	1,871,428	\$ 12,835
◆ Total Deferred Inflows of Resources	<u>\$ 6,240,015</u>	<u>\$ 131,698</u>
Employer Pension Expense:		
◆ Proportionate Share of Plan Pension Expense	\$ 7,723,360	\$ 210,143
◆ Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	7,882
◆ Total Employer Pension Expense	<u>\$ 7,723,360</u>	<u>\$ 218,025</u>
Covered Payroll:	\$ 29,460,407	\$ 827,299
Sensitivity of the Net Pension Liability to changes in the discount rate:		
◆ Current discount rate: 7.75%	\$ 45,720,415	\$ 1,243,996
◆ 1% decrease in the discount rate: 6.75%	\$ 67,089,580	\$ 1,825,425
◆ 1% increase in the discount rate: 8.75%	\$ 27,632,329	\$ 751,842
Deferred Outflows of Resources and Deferred Inflows of Resources recognized in Pension Expense:		
◆ 2018	\$ 1,496,573	\$ 48,601
◆ 2019	\$ 1,435,267	\$ 49,470
◆ 2020	\$ (846,984)	\$ (10,343)
◆ 2021	\$ (1,579,014)	\$ (38,574)
◆ 2022	\$ -	\$ -
◆ Thereafter	\$ -	\$ -

Franklin Regional Retirement System
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APPENDIX D - CALCULATION OF SINGLE DISCOUNT RATE

Under GASB 67, a series of projections and calculations are used to determine the discount rate for the purpose of the measurement of the Total Pension Liability. The discount rate is the single rate that reflects (1) the long-term expected rate of return on pension plan investments that are expected to be used to finance the payment of benefits, to the extent that the pension plan's Fiduciary Net Position is projected to be sufficient to make projected benefit payments and pension plan assets are expected to be invested using a strategy to achieve that return, and (2) a yield or index rate for 20-year, tax-exempt general obligation municipal bonds with an average rating of AA/Aa or higher, to the extent that the conditions for use of the long-term expected rate of return are not met.

Projected cash flows into and out of the pension plan are assumed to be contributions to the pension plan, benefit payments, pension plan administrative expenses and pension plan investment earnings. These projected cash flows are used to project the pension plan's Fiduciary Net Position at the beginning of each period. The pension plan's projected Fiduciary Net Position at the beginning of each period is compared to the amount of benefit payments projected to occur in that period.

It is assumed that the pension plan's Fiduciary Net Position is expected to always be invested using a strategy to achieve the long-term expected rate of return on pension plan investments.

The benefit payments that are projected to occur in a period are discounted using the long-term expected rate of return on pension plan investments if the amount of the pension plan's beginning Fiduciary Net Position is projected to be sufficient to make the benefit payments in that period. In periods in which benefit payments are projected to be greater than the amount of the pension plan's Fiduciary Net Position, they are discounted using a municipal bond rate as required by GASB 67.

For purposes of this valuation, the long-term expected rate of return on pension plan investments is 7.75%; the municipal bond rate is 3.44%, based on the December 2017 Bond Buyer Index as published by the Federal Reserve. For each period, the pension plan's Fiduciary Net Position is projected to be sufficient to make the benefit payments in that period, therefore, the resulting single discount rate is based solely on the long-term expected rate of return of 7.75%.