



FRANKLIN REGIONAL RETIREMENT SYSTEM

FINANCIAL REPORTING AND DISCLOSURES UNDER

GASB 67 and GASB 68

as of

December 31, 2018

Prepared by:

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July, 2019



July 25, 2019

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, 2018. Results are based on liabilities developed in an actuarial valuation performed as of January 1, 2018 and rolled forward to the plan's measurement date of December 31, 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.

Fiduciary Net 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 and rolled forward to the plan's measurement date of December 31, 2018.

Benefit Changes

All benefit provisions remained the same from the prior measurement date.

Assumption Changes

All actuarial assumptions and methods remained the same from the prior measurement date.

Pension Expense

The Pension Expense for the fiscal year ending December 31, 2018 is \$10,642,507 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>2018</u>	<u>2017</u>
Trust Fund Composition at Fiscal Year-End		
Domestic Equity	\$ 47,724,128	\$ 52,363,129
International Equity	15,874,401	19,572,795
Emerging Markets Int'l Equity	3,695,642	5,341,383
Core Fixed Income	25,229,367	25,624,731
Value-Added Fixed Income	5,112,304	5,295,618
Real Estate	20,852,554	19,909,155
Timber/Natural Resources	2,525,355	2,366,684
Alternatives-Private Equity	7,452,877	6,662,018
Hedge Funds	0	5,884,020
Liquidating Portfolio and Portfolio Completion	8,746,352	137,294
Overlay	0	771,460
Cash	1,548,623	1,208,508
Other	(2,361,185)	(1,216,644)
Total Market Value of Assets	<u><u>\$ 136,400,418</u></u>	<u><u>\$ 143,920,151</u></u>
Asset Activity		
Market value as of beginning of year	\$ 143,920,151	\$ 127,050,446
Contributions - employer	6,506,893	6,166,761
Contributions - member	3,281,580	3,310,425
Net investment income	(5,160,455)	18,794,508
Benefit payments, including refunds of member contributions	(11,605,484)	(10,906,590)
Administrative expenses	(542,267)	(495,399)
Other	0	0
Market Value as of end of year	<u><u>\$ 136,400,418</u></u>	<u><u>\$ 143,920,151</u></u>
Money-Weighted Rate of Return	-4.05%	14.48%
(Gain) / Loss on Pension Plan Investments		
Projected earnings	\$ 11,062,390	\$ 9,771,823
Actual earnings	(5,160,455)	18,794,508
(Gain) / Loss on pension plan investments	<u><u>\$ 16,222,845</u></u>	<u><u>\$ (9,022,685)</u></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 the December 31, 2018 measurement date was developed from an actuarial valuation as of January 1, 2018 and rolled forward to the pension plan's fiscal year-end.

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 the age at which the probability of retirement is 100% incur a service cost.

Actuarial gains and losses arise from the difference between estimates and actual experience, excluding amounts related to benefit changes and changes in assumptions or other inputs.

The development of the Total Pension Liability from the beginning of the measurement period, December 31, 2017 to the end of the measurement period, December 31, 2018 is shown below:

<u>Measurement Date</u>		<u>December 31, 2018</u>
1. Total Pension Liability, beginning of year:		
a. Actives	\$ 80,973,549	
b. Retired and Disabled Members and Beneficiaries	104,762,494	
c. Inactive Members	3,904,523	
d. Total Pension Liability at 7.75% (a. + b. + c.)		\$ 189,640,566
2. Service Cost		\$ 5,063,236
3. Benefit Payments		\$ (11,605,484)
4. Interest [7.75% x (1.c. + 2. + .5 x 3)]		\$ 14,639,832
5. Changes of benefit terms		\$ -
6. Differences between expected and actual experience		\$ -
7. Changes of assumptions or other inputs		\$ -
8. Total Pension Liability, end of year (1.d. + 2. + 3. + 4. + 5. + 6. + 7.)		
a. Actives	\$ 92,704,636	
b. Retired and Disabled Members and Beneficiaries	100,826,390	
c. Inactive Members	4,207,124	
d. Total Pension Liability at 7.75% (a. + b. + c.)		\$ 197,738,150

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, 2018, pension plan membership consisted of the following:

Inactive plan members or beneficiaries currently receiving benefits	633
Inactive plan members entitled to but not yet receiving benefits	604
Active plan members	1,023
	<u>2,260</u>

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, 2018, were as follows:

Total Pension Liability	\$ 197,738,150
Fiduciary Net Position	(136,400,418)
Net Pension Liability	<u>\$ 61,337,732</u>

Fiduciary Net Position as a percentage of the Total Pension Liability 68.98%

Actuarial assumptions:

The Total Pension Liability was determined by an actuarial valuation as of January 1, 2018, rolled forward to the measurement date of December 31, 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, 2018 (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%	5.10%
Domestic Equity	27%	5.40%
International Equity	5%	5.00%
Real Estate	10%	7.00%
Fixed Income	13%	2.40%
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	\$ 83,412,315	\$ 61,337,732	\$ 42,649,017

SECTION 3 - REQUIRED SUPPLEMENTARY INFORMATION

Exhibit 3.1 - Changes in Net Pension Liability and Related Ratios

Fiscal Year Ended December 31	<u>2018</u>	<u>2017</u>	<u>2016</u>	<u>2015</u>	<u>2014</u>
Total Pension Liability					
Service cost	\$ 5,063,236	\$ 5,207,589	\$ 5,089,632	\$ 4,703,273	\$ 4,703,273
Interest	14,639,832	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	(11,605,484)	(10,906,590)	(9,686,040)	(9,235,255)	(11,287,291)
Net change in Total Pension Liability	\$ 8,097,584	\$ 10,051,894	\$ 14,788,713	\$ 8,546,693	\$ 4,722,253
Total Pension Liability—beginning	\$ 189,640,566	\$ 179,588,672	\$ 164,799,959	\$ 156,253,266	\$ 151,531,013
Total Pension Liability—ending (a)	\$ 197,738,150	\$ 189,640,566	\$ 179,588,672	\$ 164,799,959	\$ 156,253,266
Fiduciary Net Position					
Contributions—employer	\$ 6,506,893	\$ 6,166,761	\$ 5,875,820	\$ 5,645,345	\$ 5,418,158
Contributions—member	3,281,580	3,310,425	3,098,432	2,971,069	3,270,956
Net investment income	(5,160,455)	18,794,508	10,050,389	579,359	8,362,434
Benefit payments, including refunds of member contributions	(11,605,484)	(10,906,590)	(9,686,040)	(9,235,255)	(11,287,291)
Administrative expenses	(542,267)	(495,399)	(498,301)	(469,365)	(403,802)
Other	-	-	-	-	-
Net change in Fiduciary Net Position	\$ (7,519,733)	\$ 16,869,705	\$ 8,840,300	\$ (508,847)	\$ 5,360,455
Fiduciary Net Position—beginning	143,920,151	127,050,446	118,210,146	118,718,993	113,358,538
Fiduciary Net Position—ending (b)	\$ 136,400,418	\$ 143,920,151	\$ 127,050,446	\$ 118,210,146	\$ 118,718,993
Net Pension Liability—ending (a) – (b)	\$ 61,337,732	\$ 45,720,415	\$ 52,538,226	\$ 46,589,813	\$ 37,534,273
Fiduciary Net Position as a percentage of the Total Pension Liability	68.98%	75.89%	70.75%	71.73%	75.98%
Covered Payroll ¹	\$ 30,220,970	\$ 29,460,407	\$ 33,556,164	\$ 32,088,838	\$ 30,854,652
Net Pension Liability as a percentage of Covered Payroll	202.96%	155.19%	156.57%	145.19%	121.65%

¹ Covered Payroll for 2018 is the pension payroll provided by the Franklin Regional Retirement System and used to develop the 2019 appropriation.

SECTION 3 - REQUIRED SUPPLEMENTARY INFORMATION

Exhibit 3.2 - Schedule of Employer Contributions

Fiscal Year Ended December 31	<u>2018</u>	<u>2017</u>	<u>2016</u>	<u>2015</u>	<u>2014</u>
Actuarially Determined Contribution	\$ 6,506,893	\$ 6,166,761	\$ 5,875,820	\$ 5,645,345	\$ 5,888,495
Contributions in relation to the Actuarially Determined Contribution	<u>6,506,893</u>	<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>	<u>\$ -</u>
 Covered Payroll	 \$30,220,970	 \$29,460,407	 \$33,556,164	 \$32,088,838	 \$30,854,652
Contributions as a percentage of Covered Payroll	21.53%	20.93%	17.51%	17.59%	19.08%

The contribution shown above, \$6,506,893, represents the actual contributions made by member units of the Franklin Regional Retirement System for the 2019 fiscal year.

SECTION 3 - REQUIRED SUPPLEMENTARY INFORMATION

Exhibit 3.3 - Investment Returns

Fiscal Year Ended December 31	<u>2018</u>	<u>2017</u>	<u>2016</u>	<u>2015</u>	<u>2014</u>
Annual money-weighted rate of return, net of investment expense	-4.05%	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:

None.

Changes of assumptions:

None.

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, 2018	Balances at December 31, 2018	
	(a)	(b)		Deferred Outflows of Resources (a) - (c)	Deferred Inflows of Resources (b) - (c)
2016	\$ -	\$ 146,259	\$ (96,648)	\$ -	\$ 49,611
2017	\$ 1,964,150	\$ -	\$ 878,814	\$ 1,085,336	\$ -
2018	\$ -	\$ -	\$ -	\$ -	\$ -
				<u>\$ 1,085,336</u>	<u>\$ 49,611</u>

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, 2018	Balances at December 31, 2018	
	(a)	(b)		Deferred Outflows of Resources (a) - (c)	Deferred Inflows of Resources (b) - (c)
2016	\$ 5,736,511	\$ -	\$ 3,790,647	\$ 1,945,864	\$ -
2017	\$ 180,697	\$ -	\$ 80,848	\$ 99,849	\$ -
2018	\$ -	\$ -	\$ -	\$ -	\$ -
				<u>\$ 2,045,713</u>	<u>\$ -</u>

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 (a)	Investment Earnings Greater Than Projected (b)	Amounts Recognized in Pension Expense through December 31, 2018 (c)	Balances at December 31, 2018	
				Deferred Outflows of Resources (a) - (c)	Deferred Inflows of Resources (b) - (c)
2014	\$ 306,526	\$ -	\$ 306,526	\$ -	\$ -
2015	\$ 8,579,195	\$ -	\$ 6,863,356	\$ 1,715,839	\$ -
2016	\$ -	\$ 935,994	\$ (561,597)	\$ -	\$ 374,397
2017	\$ -	\$ 9,022,685	\$ (3,609,074)	\$ -	\$ 5,413,611
2018	\$ 16,222,845	\$ -	\$ 3,244,569	\$ 12,978,276	\$ -
Subtotal				\$ 14,694,115	\$ 5,788,008
				\$ 8,906,107	\$ -

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) (a)	Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions (Inflows) (b)	Amounts Recognized in Pension Expense through December 31, 2018 (c)	Balances at December 31, 2018	
				Deferred Outflows of Resources (a) - (c)	Deferred Inflows of Resources (b) - (c)
2015	\$ 2,688,537	\$ 2,688,534	\$ 2,302,817	\$ 385,720	\$ 385,720
2016	\$ 686,573	\$ 686,573	\$ 453,682	\$ 232,891	\$ 232,891
2017	\$ 677,438	\$ 677,438	\$ 303,105	\$ 374,333	\$ 374,333
2018	\$ 405,157	\$ 405,157	\$ 90,639	\$ 314,518	\$ 314,518
				\$ 1,307,462	\$ 1,307,462

Franklin Regional Retirement System
Financial Reporting and Disclosures Under GASB 67 and GASB 68 as of December 31, 2018

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		
2019	\$	4,679,836
2020	\$	2,397,585
2021	\$	1,665,555
2022	\$	3,244,569
2023	\$	-
Thereafter	\$	(0)

SECTION 4 - EMPLOYER REPORTING AMOUNTS UNDER GASB 68

Exhibit 4.2 - Pension Expense

Fiscal Year Ended December 31	2018
1. Service cost	\$ 5,063,236
2. Interest on the total pension liability	
a. Total Pension Liability, beginning of year	189,640,566
b. Service cost, beginning of year	5,063,236
c. Benefit payments, including refunds of employee contributions	(11,605,484)
d. Interest on Total Pension Liability	14,639,832
3. Differences between expected and actual experience	407,191
4. Changes of benefit terms	-
5. Changes of assumptions	1,303,973
6. Employee contributions	(3,281,580)
7. Projected earnings on pension plan investments	
a. Fiduciary Net Position, beginning of year	143,920,151
b. Employer contributions	6,506,893
c. Employee contributions	3,281,580
d. Benefit payments, including refunds of employee contributions	(11,605,484)
e. Administrative expenses and other	(542,267)
f. Total projected earnings	(11,062,390)
8. Differences between projected and actual earnings on plan investments	3,029,978
9. Pension plan administrative expenses	542,267
10. Other changes in Fiduciary Net Position	-
11. Total Pension Expense	\$ 10,642,507

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 2018 and 2017, based on employer contributions made for the 2019 fiscal year and 2018 fiscal year, respectively, shows the proportionate relationship of each employer to all employers and each employer's allocation percentage.

Entity	2018		2017	
	Employer Contribution	Proportionate Share of Total Employer Contribution	Employer Contribution	Proportionate Share of Total Employer Contribution
Town of Ashfield	87,704	1.347863%	83,596	1.355590%
Town of Bernardston	98,429	1.512688%	91,359	1.481475%
Bernardston Fire & Water District	3,155	0.048487%	2,985	0.048405%
Town of Buckland	129,523	1.990551%	120,569	1.955143%
Town of Charlemont	69,406	1.066653%	64,489	1.045752%
Town of Colrain	87,697	1.347755%	80,515	1.305629%
Town of Conway	175,407	2.695710%	165,999	2.691834%
Town of Deerfield	574,805	8.833786%	536,211	8.695180%
Town of Erving	287,086	4.412029%	267,509	4.337917%
Franklin County Regional Housing Authority	253,879	3.901693%	254,252	4.122942%
Franklin County Solid Waste Management District	27,638	0.424754%	25,794	0.418282%
Franklin Regional Transit Authority	73,914	1.135934%	65,084	1.055400%
Frontier Regional School District	403,160	6.195891%	383,032	6.211235%
Town of Gill	100,229	1.540351%	93,699	1.519420%
Hawlemont Regional School District	55,524	0.853310%	52,547	0.852100%
Town of Hawley	27,132	0.416973%	24,482	0.396999%
Town of Heath	56,786	0.872705%	53,143	0.861765%
Town of Leverett	198,131	3.044940%	193,589	3.139233%
Town of Leyden	27,762	0.426655%	26,273	0.426042%
Mahar Regional School District	325,575	5.003540%	302,141	4.899509%
Mohawk Regional School District	593,734	9.124692%	559,499	9.072818%
Town of Monroe	19,560	0.300604%	19,474	0.315791%
Town of New Salem	49,846	0.766049%	45,381	0.735897%
New Salem/Wendell Union School District	133,900	2.057818%	125,407	2.033596%
Town of Northfield	186,652	2.868527%	175,262	2.842043%
Town of Orange	922,264	14.173646%	902,626	14.636954%
Orange Housing Authority	8,833	0.135748%	8,957	0.145246%
Pioneer Valley Regional School District	472,874	7.267278%	446,993	7.248417%
Town of Rowe	137,449	2.112360%	132,439	2.147627%

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 2018 and 2017, based on employer contributions made for the 2019 fiscal year and 2018 fiscal year, respectively, shows the proportionate relationship of each employer to all employers and each employer's allocation percentage.

Entity	2018		2017	
	Employer Contribution	Proportionate Share of Total Employer Contribution	Employer Contribution	Proportionate Share of Total Employer Contribution
Town of Shelburne	121,145	1.861795%	115,244	1.868793%
Shelburne Falls Fire District	41,643	0.639983%	40,007	0.648752%
Town of Shutesbury	186,133	2.860551%	173,164	2.808022%
South Deerfield Fire District	11,988	0.184235%	11,942	0.193651%
South Deerfield Water Supply District	29,655	0.455747%	28,661	0.464766%
Town of Sunderland	246,075	3.781759%	230,487	3.737570%
Town of Warwick	52,370	0.804839%	48,963	0.793982%
Town of Wendell	50,637	0.778205%	47,197	0.765345%
Town of Whately	179,193	2.753895%	167,790	2.720877%
Total	6,506,893	100.000000%	6,166,761	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 2018:

- ◆ 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 (loss on pension plan investments for 2018) 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 2018 (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.

Discount Rate – Single rate of return that, when applied to all projected benefit payments, results in an actuarial present value of projected benefit payments equal to the sum of:

- (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.*

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.

SECTION 5 - GLOSSARY OF TERMS

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.

GASB – Governmental Accounting Standards Board.

Long-Term Expected Rate of Return – Long-term expected rate of return on pension plan investments expected to be used to finance the payment of benefits, net of investment expenses.

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

Municipal Bond Rate – Yield or index rate for 20-year, tax-exempt general obligation municipal bonds with an average rating of AA/Aa or higher.

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 using the Entry Age Normal cost method based on the requirements of GASB 67 and GASB 68.

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, 2018	\$ 143,920,151	12	1.00	\$ 138,096,541
Monthly net external cash flows:				
January	(820,827)	11	0.92	(790,329)
February	(525,758)	10	0.83	(507,969)
March	(551,381)	9	0.75	(534,562)
April	(1,221,026)	8	0.67	(1,187,861)
May	(734,515)	7	0.58	(717,028)
June	(155,269)	6	0.50	(152,095)
July	5,047,981	5	0.42	4,961,845
August	(612,352)	4	0.33	(603,979)
September	(732,193)	3	0.25	(724,671)
October	(636,858)	2	0.17	(632,489)
November	(689,877)	1	0.08	(687,506)
December	(119,479)	0	0.00	(119,479)
Ending value - December 31, 2018				\$ 136,400,418
Money-weighted rate of return				-4.05%

Note: Beginning and ending values are based on amounts reported in the System's 2018 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	-	-
2018	\$	-		-	-	-	-	-	-	-	-	-	-
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	-	-
2018	\$	-		-	-	-	-	-	-	-	-	-	-
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)	-	-
2018	\$	16,222,845	5	-	-	-	-	3,244,569	3,244,569	3,244,569	3,244,569	3,244,569	-
Net Increase (Decrease) in Pension Expense				61,305	1,777,144	1,589,945	(214,592)	3,029,978	2,968,672	1,252,834	1,440,032	3,244,569	-

Franklin Regional Retirement System
 Financial Reporting and Disclosures Under GASB 67 and GASB 68 as of December 31, 2018

APPENDIX C - SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

<u>Pension Amounts as of December 31, 2018</u>	Franklin Regional Retirement System	Town of Ashfield
◆ Current Proportionate Share		1.347863%
◆ Prior Proportionate Share		1.355590%
<i>Beginning Net Pension Liability</i>	\$ 45,720,415	\$ 619,781
<i>Ending Net Pension Liability</i>	\$ 61,337,732	\$ 826,749
<i>Total Deferred Outflows of Resources:</i>		
◆ Differences Between Expected and Actual Experience	\$ 1,085,336	\$ 14,629
◆ Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	8,906,107	120,042
◆ Changes of Assumptions	2,045,713	27,573
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	1,307,462	14,392
◆ Total Deferred Outflows of Resources	<u>\$ 13,344,618</u>	<u>\$ 176,636</u>
<i>Total Deferred Inflows of Resources:</i>		
◆ Differences Between Expected and Actual Experience	\$ 49,611	\$ 669
◆ Changes of Assumptions	-	\$ -
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	1,307,462	\$ 5,668
◆ Total Deferred Inflows of Resources	<u>\$ 1,357,073</u>	<u>\$ 6,337</u>
<i>Employer Pension Expense:</i>		
◆ Proportionate Share of Plan Pension Expense	\$ 10,642,507	\$ 143,446
◆ Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	3,722
◆ Total Employer Pension Expense	<u>\$ 10,642,507</u>	<u>\$ 147,168</u>
<i>Covered Payroll:</i>	\$ 30,220,970	\$ 420,788
<i>Sensitivity of the Net Pension Liability to changes in the discount rate:</i>		
◆ Current discount rate: 7.75%	\$ 61,337,732	\$ 826,749
◆ 1% decrease in the discount rate: 6.75%	\$ 83,412,315	\$ 1,124,284
◆ 1% increase in the discount rate: 8.75%	\$ 42,649,017	\$ 574,850
<i>Deferred Outflows of Resources and Deferred Inflows of Resources recognized in Pension Expense:</i>		
◆ 2019	\$ 4,679,836	\$ 66,529
◆ 2020	\$ 2,397,585	\$ 36,104
◆ 2021	\$ 1,665,555	\$ 24,301
◆ 2022	\$ 3,244,569	\$ 43,365
◆ 2023	\$ -	\$ -
◆ Thereafter	\$ (0)	\$ -

Franklin Regional Retirement System
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APPENDIX C - SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

<u>Pension Amounts as of December 31, 2018</u>	<u>Franklin Regional Retirement System</u>	<u>Town of Bernardston</u>
◆ Current Proportionate Share		1.512688%
◆ Prior Proportionate Share		1.481475%
<i>Beginning Net Pension Liability</i>	\$ 45,720,415	\$ 677,336
<i>Ending Net Pension Liability</i>	\$ 61,337,732	\$ 927,849
<i>Total Deferred Outflows of Resources:</i>		
◆ Differences Between Expected and Actual Experience	\$ 1,085,336	\$ 16,418
◆ Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	8,906,107	134,722
◆ Changes of Assumptions	2,045,713	30,945
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	1,307,462	22,100
◆ Total Deferred Outflows of Resources	<u>\$ 13,344,618</u>	<u>\$ 204,185</u>
<i>Total Deferred Inflows of Resources:</i>		
◆ Differences Between Expected and Actual Experience	\$ 49,611	\$ 750
◆ Changes of Assumptions	-	\$ -
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	1,307,462	\$ -
◆ Total Deferred Inflows of Resources	<u>\$ 1,357,073</u>	<u>\$ 750</u>
<i>Employer Pension Expense:</i>		
◆ Proportionate Share of Plan Pension Expense	\$ 10,642,507	\$ 160,988
◆ Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	8,808
◆ Total Employer Pension Expense	<u>\$ 10,642,507</u>	<u>\$ 169,796</u>
<i>Covered Payroll:</i>	\$ 30,220,970	\$ 471,803
<i>Sensitivity of the Net Pension Liability to changes in the discount rate:</i>		
◆ Current discount rate: 7.75%	\$ 61,337,732	\$ 927,849
◆ 1% decrease in the discount rate: 6.75%	\$ 83,412,315	\$ 1,261,768
◆ 1% increase in the discount rate: 8.75%	\$ 42,649,017	\$ 645,147
<i>Deferred Outflows of Resources and Deferred Inflows of Resources recognized in Pension Expense:</i>		
◆ 2019	\$ 4,679,836	\$ 79,182
◆ 2020	\$ 2,397,585	\$ 43,545
◆ 2021	\$ 1,665,555	\$ 30,143
◆ 2022	\$ 3,244,569	\$ 50,565
◆ 2023	\$ -	\$ -
◆ Thereafter	\$ (0)	\$ -

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APPENDIX C - SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

Pension Amounts as of December 31, 2018	Franklin Regional Retirement System	Bernardston Fire & Water District
◆ Current Proportionate Share		0.048487%
◆ Prior Proportionate Share		0.048405%
<i>Beginning Net Pension Liability</i>	\$ 45,720,415	\$ 22,131
<i>Ending Net Pension Liability</i>	\$ 61,337,732	\$ 29,741
<i>Total Deferred Outflows of Resources:</i>		
◆ Differences Between Expected and Actual Experience	\$ 1,085,336	\$ 526
◆ Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	8,906,107	4,318
◆ Changes of Assumptions	2,045,713	992
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	1,307,462	524
◆ Total Deferred Outflows of Resources	\$ 13,344,618	\$ 6,360
<i>Total Deferred Inflows of Resources:</i>		
◆ Differences Between Expected and Actual Experience	\$ 49,611	\$ 24
◆ Changes of Assumptions	-	\$ -
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	1,307,462	\$ 1,306
◆ Total Deferred Inflows of Resources	\$ 1,357,073	\$ 1,330
<i>Employer Pension Expense:</i>		
◆ Proportionate Share of Plan Pension Expense	\$ 10,642,507	\$ 5,160
◆ Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	(186)
◆ Total Employer Pension Expense	\$ 10,642,507	\$ 4,974
<i>Covered Payroll:</i>	\$ 30,220,970	\$ 15,681
<i>Sensitivity of the Net Pension Liability to changes in the discount rate:</i>		
◆ Current discount rate: 7.75%	\$ 61,337,732	\$ 29,741
◆ 1% decrease in the discount rate: 6.75%	\$ 83,412,315	\$ 40,444
◆ 1% increase in the discount rate: 8.75%	\$ 42,649,017	\$ 20,679
<i>Deferred Outflows of Resources and Deferred Inflows of Resources recognized in Pension Expense:</i>		
◆ 2019	\$ 4,679,836	\$ 1,879
◆ 2020	\$ 2,397,585	\$ 744
◆ 2021	\$ 1,665,555	\$ 831
◆ 2022	\$ 3,244,569	\$ 1,576
◆ 2023	\$ -	\$ -
◆ Thereafter	\$ (0)	\$ -

Franklin Regional Retirement System
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APPENDIX C - SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

Pension Amounts as of December 31, 2018	Franklin Regional Retirement System	Town of Buckland
◆ Current Proportionate Share		1.990551%
◆ Prior Proportionate Share		1.955143%
Beginning Net Pension Liability	\$ 45,720,415	\$ 893,900
Ending Net Pension Liability	\$ 61,337,732	\$ 1,220,959
Total Deferred Outflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 1,085,336	\$ 21,604
◆ Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	8,906,107	177,281
◆ Changes of Assumptions	2,045,713	40,721
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	1,307,462	38,475
◆ Total Deferred Outflows of Resources	\$ 13,344,618	\$ 278,081
Total Deferred Inflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 49,611	\$ 988
◆ Changes of Assumptions	-	\$ -
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	1,307,462	\$ -
◆ Total Deferred Inflows of Resources	\$ 1,357,073	\$ 988
Employer Pension Expense:		
◆ Proportionate Share of Plan Pension Expense	\$ 10,642,507	\$ 211,844
◆ Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	22,129
◆ Total Employer Pension Expense	\$ 10,642,507	\$ 233,973
Covered Payroll:	\$ 30,220,970	\$ 585,468
Sensitivity of the Net Pension Liability to changes in the discount rate:		
◆ Current discount rate: 7.75%	\$ 61,337,732	\$ 1,220,959
◆ 1% decrease in the discount rate: 6.75%	\$ 83,412,315	\$ 1,660,364
◆ 1% increase in the discount rate: 8.75%	\$ 42,649,017	\$ 848,950
Deferred Outflows of Resources and Deferred Inflows of Resources recognized in Pension Expense:		
◆ 2019	\$ 4,679,836	\$ 112,103
◆ 2020	\$ 2,397,585	\$ 59,021
◆ 2021	\$ 1,665,555	\$ 39,702
◆ 2022	\$ 3,244,569	\$ 66,267
◆ 2023	\$ -	\$ -
◆ Thereafter	\$ (0)	\$ -

Franklin Regional Retirement System
 Financial Reporting and Disclosures Under GASB 67 and GASB 68 as of December 31, 2018

APPENDIX C - SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

Pension Amounts as of December 31, 2018	Franklin Regional Retirement System	Town of Charlemont
◆ Current Proportionate Share		1.066653%
◆ Prior Proportionate Share		1.045752%
Beginning Net Pension Liability	\$ 45,720,415	\$ 478,122
Ending Net Pension Liability	\$ 61,337,732	\$ 654,261
Total Deferred Outflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 1,085,336	\$ 11,577
◆ Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	8,906,107	94,997
◆ Changes of Assumptions	2,045,713	21,821
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	1,307,462	13,790
◆ Total Deferred Outflows of Resources	<u>\$ 13,344,618</u>	<u>\$ 142,185</u>
Total Deferred Inflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 49,611	\$ 529
◆ Changes of Assumptions	-	-
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	1,307,462	\$ 291
◆ Total Deferred Inflows of Resources	<u>\$ 1,357,073</u>	<u>\$ 820</u>
Employer Pension Expense:		
◆ Proportionate Share of Plan Pension Expense	\$ 10,642,507	\$ 113,519
◆ Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	4,627
◆ Total Employer Pension Expense	<u>\$ 10,642,507</u>	<u>\$ 118,146</u>
Covered Payroll:	\$ 30,220,970	\$ 331,289
Sensitivity of the Net Pension Liability to changes in the discount rate:		
◆ Current discount rate: 7.75%	\$ 61,337,732	\$ 654,261
◆ 1% decrease in the discount rate: 6.75%	\$ 83,412,315	\$ 889,720
◆ 1% increase in the discount rate: 8.75%	\$ 42,649,017	\$ 454,917
Deferred Outflows of Resources and Deferred Inflows of Resources recognized in Pension Expense:		
◆ 2019	\$ 4,679,836	\$ 54,503
◆ 2020	\$ 2,397,585	\$ 30,167
◆ 2021	\$ 1,665,555	\$ 21,093
◆ 2022	\$ 3,244,569	\$ 35,602
◆ 2023	\$ -	\$ -
◆ Thereafter	\$ (0)	\$ -

Franklin Regional Retirement System
Financial Reporting and Disclosures Under GASB 67 and GASB 68 as of December 31, 2018

APPENDIX C - SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

Pension Amounts as of December 31, 2018	Franklin Regional Retirement System	Town of Colrain
◆ Current Proportionate Share		1.347755%
◆ Prior Proportionate Share		1.305629%
Beginning Net Pension Liability	\$ 45,720,415	\$ 596,939
Ending Net Pension Liability	\$ 61,337,732	\$ 826,683
Total Deferred Outflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 1,085,336	\$ 14,628
◆ Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	8,906,107	120,033
◆ Changes of Assumptions	2,045,713	27,571
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	1,307,462	29,513
◆ Total Deferred Outflows of Resources	<u>\$ 13,344,618</u>	<u>\$ 191,745</u>
Total Deferred Inflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 49,611	\$ 669
◆ Changes of Assumptions	-	-
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	1,307,462	-
◆ Total Deferred Inflows of Resources	<u>\$ 1,357,073</u>	<u>\$ 669</u>
Employer Pension Expense:		
◆ Proportionate Share of Plan Pension Expense	\$ 10,642,507	\$ 143,435
◆ Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	21,034
◆ Total Employer Pension Expense	<u>\$ 10,642,507</u>	<u>\$ 164,469</u>
Covered Payroll:	\$ 30,220,970	\$ 375,240
Sensitivity of the Net Pension Liability to changes in the discount rate:		
◆ Current discount rate: 7.75%	\$ 61,337,732	\$ 826,683
◆ 1% decrease in the discount rate: 6.75%	\$ 83,412,315	\$ 1,124,194
◆ 1% increase in the discount rate: 8.75%	\$ 42,649,017	\$ 574,804
Deferred Outflows of Resources and Deferred Inflows of Resources recognized in Pension Expense:		
◆ 2019	\$ 4,679,836	\$ 79,221
◆ 2020	\$ 2,397,585	\$ 38,517
◆ 2021	\$ 1,665,555	\$ 27,607
◆ 2022	\$ 3,244,569	\$ 45,731
◆ 2023	\$ -	\$ -
◆ Thereafter	\$ (0)	\$ -

Franklin Regional Retirement System
Financial Reporting and Disclosures Under GASB 67 and GASB 68 as of December 31, 2018

APPENDIX C - SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

Pension Amounts as of December 31, 2018	Franklin Regional Retirement System	Town of Conway
◆ Current Proportionate Share		2.695710%
◆ Prior Proportionate Share		2.691834%
Beginning Net Pension Liability	\$ 45,720,415	\$ 1,230,718
Ending Net Pension Liability	\$ 61,337,732	\$ 1,653,488
Total Deferred Outflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 1,085,336	\$ 29,258
◆ Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	8,906,107	240,083
◆ Changes of Assumptions	2,045,713	55,146
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	1,307,462	23,660
◆ Total Deferred Outflows of Resources	<u>\$ 13,344,618</u>	<u>\$ 348,147</u>
Total Deferred Inflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 49,611	\$ 1,337
◆ Changes of Assumptions	-	\$ -
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	1,307,462	\$ 354
◆ Total Deferred Inflows of Resources	<u>\$ 1,357,073</u>	<u>\$ 1,691</u>
Employer Pension Expense:		
◆ Proportionate Share of Plan Pension Expense	\$ 10,642,507	\$ 286,891
◆ Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	11,551
◆ Total Employer Pension Expense	<u>\$ 10,642,507</u>	<u>\$ 298,442</u>
Covered Payroll:	\$ 30,220,970	\$ 840,364
Sensitivity of the Net Pension Liability to changes in the discount rate:		
◆ Current discount rate: 7.75%	\$ 61,337,732	\$ 1,653,488
◆ 1% decrease in the discount rate: 6.75%	\$ 83,412,315	\$ 2,248,554
◆ 1% increase in the discount rate: 8.75%	\$ 42,649,017	\$ 1,149,694
Deferred Outflows of Resources and Deferred Inflows of Resources recognized in Pension Expense:		
◆ 2019	\$ 4,679,836	\$ 137,881
◆ 2020	\$ 2,397,585	\$ 73,463
◆ 2021	\$ 1,665,555	\$ 47,464
◆ 2022	\$ 3,244,569	\$ 87,648
◆ 2023	\$ -	\$ -
◆ Thereafter	\$ (0)	\$ -

Franklin Regional Retirement System
Financial Reporting and Disclosures Under GASB 67 and GASB 68 as of December 31, 2018

APPENDIX C - SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

Pension Amounts as of December 31, 2018	Franklin Regional Retirement System	Town of Deerfield
◆ Current Proportionate Share		8.833786%
◆ Prior Proportionate Share		8.695180%
Beginning Net Pension Liability	\$ 45,720,415	\$ 3,975,473
Ending Net Pension Liability	\$ 61,337,732	\$ 5,418,444
Total Deferred Outflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 1,085,336	\$ 95,876
◆ Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	8,906,107	786,746
◆ Changes of Assumptions	2,045,713	180,714
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	1,307,462	147,916
◆ Total Deferred Outflows of Resources	\$ 13,344,618	\$ 1,211,252
Total Deferred Inflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 49,611	\$ 4,383
◆ Changes of Assumptions	-	\$ -
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	1,307,462	\$ -
◆ Total Deferred Inflows of Resources	\$ 1,357,073	\$ 4,383
Employer Pension Expense:		
◆ Proportionate Share of Plan Pension Expense	\$ 10,642,507	\$ 940,136
◆ Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	70,084
◆ Total Employer Pension Expense	\$ 10,642,507	\$ 1,010,220
Covered Payroll:	\$ 30,220,970	\$ 2,751,736
Sensitivity of the Net Pension Liability to changes in the discount rate:		
◆ Current discount rate: 7.75%	\$ 61,337,732	\$ 5,418,444
◆ 1% decrease in the discount rate: 6.75%	\$ 83,412,315	\$ 7,368,465
◆ 1% increase in the discount rate: 8.75%	\$ 42,649,017	\$ 3,767,523
Deferred Outflows of Resources and Deferred Inflows of Resources recognized in Pension Expense:		
◆ 2019	\$ 4,679,836	\$ 480,043
◆ 2020	\$ 2,397,585	\$ 261,341
◆ 2021	\$ 1,665,555	\$ 172,280
◆ 2022	\$ 3,244,569	\$ 293,205
◆ 2023	\$ -	\$ -
◆ Thereafter	\$ (0)	\$ -

Franklin Regional Retirement System
 Financial Reporting and Disclosures Under GASB 67 and GASB 68 as of December 31, 2018

APPENDIX C - SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

Pension Amounts as of December 31, 2018	Franklin Regional Retirement System	Town of Erving
◆ Current Proportionate Share		4.412029%
◆ Prior Proportionate Share		4.337917%
Beginning Net Pension Liability	\$ 45,720,415	\$ 1,983,314
Ending Net Pension Liability	\$ 61,337,732	\$ 2,706,238
Total Deferred Outflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 1,085,336	\$ 47,885
◆ Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	8,906,107	392,940
◆ Changes of Assumptions	2,045,713	90,257
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	1,307,462	128,458
◆ Total Deferred Outflows of Resources	<u>\$ 13,344,618</u>	<u>\$ 659,540</u>
Total Deferred Inflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 49,611	\$ 2,189
◆ Changes of Assumptions	-	-
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	1,307,462	\$ 127,105
◆ Total Deferred Inflows of Resources	<u>\$ 1,357,073</u>	<u>\$ 129,294</u>
Employer Pension Expense:		
◆ Proportionate Share of Plan Pension Expense	\$ 10,642,507	\$ 469,550
◆ Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	21,141
◆ Total Employer Pension Expense	<u>\$ 10,642,507</u>	<u>\$ 490,691</u>
Covered Payroll:	\$ 30,220,970	\$ 1,375,541
Sensitivity of the Net Pension Liability to changes in the discount rate:		
◆ Current discount rate: 7.75%	\$ 61,337,732	\$ 2,706,238
◆ 1% decrease in the discount rate: 6.75%	\$ 83,412,315	\$ 3,680,175
◆ 1% increase in the discount rate: 8.75%	\$ 42,649,017	\$ 1,881,687
Deferred Outflows of Resources and Deferred Inflows of Resources recognized in Pension Expense:		
◆ 2019	\$ 4,679,836	\$ 228,260
◆ 2020	\$ 2,397,585	\$ 98,269
◆ 2021	\$ 1,665,555	\$ 57,044
◆ 2022	\$ 3,244,569	\$ 146,673
◆ 2023	\$ -	\$ -
◆ Thereafter	\$ (0)	\$ -

Franklin Regional Retirement System
Financial Reporting and Disclosures Under GASB 67 and GASB 68 as of December 31, 2018

APPENDIX C - SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

Pension Amounts as of December 31, 2018	Franklin Regional Retirement System	Franklin County Regional Housing Authority
◆ Current Proportionate Share		3.901693%
◆ Prior Proportionate Share		4.122942%
Beginning Net Pension Liability	\$ 45,720,415	\$ 1,885,026
Ending Net Pension Liability	\$ 61,337,732	\$ 2,393,210
Total Deferred Outflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 1,085,336	\$ 42,346
◆ Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	8,906,107	347,489
◆ Changes of Assumptions	2,045,713	79,817
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	1,307,462	32,262
◆ Total Deferred Outflows of Resources	\$ 13,344,618	\$ 501,914
Total Deferred Inflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 49,611	\$ 1,936
◆ Changes of Assumptions	-	\$ -
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	1,307,462	\$ 175,106
◆ Total Deferred Inflows of Resources	\$ 1,357,073	\$ 177,042
Employer Pension Expense:		
◆ Proportionate Share of Plan Pension Expense	\$ 10,642,507	\$ 415,238
◆ Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	(22,998)
◆ Total Employer Pension Expense	\$ 10,642,507	\$ 392,240
Covered Payroll:	\$ 30,220,970	\$ 1,194,286
Sensitivity of the Net Pension Liability to changes in the discount rate:		
◆ Current discount rate: 7.75%	\$ 61,337,732	\$ 2,393,210
◆ 1% decrease in the discount rate: 6.75%	\$ 83,412,315	\$ 3,254,492
◆ 1% increase in the discount rate: 8.75%	\$ 42,649,017	\$ 1,664,034
Deferred Outflows of Resources and Deferred Inflows of Resources recognized in Pension Expense:		
◆ 2019	\$ 4,679,836	\$ 143,704
◆ 2020	\$ 2,397,585	\$ 33,780
◆ 2021	\$ 1,665,555	\$ 31,314
◆ 2022	\$ 3,244,569	\$ 116,074
◆ 2023	\$ -	\$ -
◆ Thereafter	\$ (0)	\$ -

Franklin Regional Retirement System
 Financial Reporting and Disclosures Under GASB 67 and GASB 68 as of December 31, 2018

APPENDIX C - SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

Pension Amounts as of December 31, 2018	Franklin Regional Retirement System	Franklin County Solid Waste Management District
◆ Current Proportionate Share		0.424754%
◆ Prior Proportionate Share		0.418282%
Beginning Net Pension Liability	\$ 45,720,415	\$ 191,240
Ending Net Pension Liability	\$ 61,337,732	\$ 260,534
Total Deferred Outflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 1,085,336	\$ 4,610
◆ Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	8,906,107	37,829
◆ Changes of Assumptions	2,045,713	8,689
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	1,307,462	4,361
◆ Total Deferred Outflows of Resources	<u>\$ 13,344,618</u>	<u>\$ 55,489</u>
Total Deferred Inflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 49,611	\$ 211
◆ Changes of Assumptions	-	\$ -
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	1,307,462	\$ 121
◆ Total Deferred Inflows of Resources	<u>\$ 1,357,073</u>	<u>\$ 332</u>
Employer Pension Expense:		
◆ Proportionate Share of Plan Pension Expense	\$ 10,642,507	\$ 45,204
◆ Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	2,957
◆ Total Employer Pension Expense	<u>\$ 10,642,507</u>	<u>\$ 48,161</u>
Covered Payroll:	\$ 30,220,970	\$ 129,442
Sensitivity of the Net Pension Liability to changes in the discount rate:		
◆ Current discount rate: 7.75%	\$ 61,337,732	\$ 260,534
◆ 1% decrease in the discount rate: 6.75%	\$ 83,412,315	\$ 354,297
◆ 1% increase in the discount rate: 8.75%	\$ 42,649,017	\$ 181,153
Deferred Outflows of Resources and Deferred Inflows of Resources recognized in Pension Expense:		
◆ 2019	\$ 4,679,836	\$ 22,139
◆ 2020	\$ 2,397,585	\$ 11,071
◆ 2021	\$ 1,665,555	\$ 7,859
◆ 2022	\$ 3,244,569	\$ 14,088
◆ 2023	\$ -	\$ -
◆ Thereafter	\$ (0)	\$ -

Franklin Regional Retirement System
Financial Reporting and Disclosures Under GASB 67 and GASB 68 as of December 31, 2018

APPENDIX C - SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

Pension Amounts as of December 31, 2018	Franklin Regional Retirement System	Franklin Regional Council of Governments
◆ Current Proportionate Share		0.000000%
◆ Prior Proportionate Share		0.000000%
Beginning Net Pension Liability	\$ 45,720,415	\$ -
Ending Net Pension Liability	\$ 61,337,732	\$ -
Total Deferred Outflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 1,085,336	\$ -
◆ Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	8,906,107	-
◆ Changes of Assumptions	2,045,713	-
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	1,307,462	-
◆ Total Deferred Outflows of Resources	<u>\$ 13,344,618</u>	<u>\$ -</u>
Total Deferred Inflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 49,611	\$ -
◆ Changes of Assumptions	-	\$ -
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	1,307,462	\$ 370,743
◆ Total Deferred Inflows of Resources	<u>\$ 1,357,073</u>	<u>\$ 370,743</u>
Employer Pension Expense:		
◆ Proportionate Share of Plan Pension Expense	\$ 10,642,507	\$ -
◆ 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>\$ 10,642,507</u>	<u>\$ (553,347)</u>
Covered Payroll:	\$ 30,220,970	\$ -
Sensitivity of the Net Pension Liability to changes in the discount rate:		
◆ Current discount rate: 7.75%	\$ 61,337,732	\$ -
◆ 1% decrease in the discount rate: 6.75%	\$ 83,412,315	\$ -
◆ 1% increase in the discount rate: 8.75%	\$ 42,649,017	\$ -
Deferred Outflows of Resources and Deferred Inflows of Resources recognized in Pension Expense:		
◆ 2019	\$ 4,679,836	\$ (370,743)
◆ 2020	\$ 2,397,585	\$ -
◆ 2021	\$ 1,665,555	\$ -
◆ 2022	\$ 3,244,569	\$ -
◆ 2023	\$ -	\$ -
◆ Thereafter	\$ (0)	\$ -

Franklin Regional Retirement System
Financial Reporting and Disclosures Under GASB 67 and GASB 68 as of December 31, 2018

APPENDIX C - SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

Pension Amounts as of December 31, 2018	Franklin Regional Retirement System	Franklin Regional Transit Authority
◆ Current Proportionate Share		1.135934%
◆ Prior Proportionate Share		1.055400%
Beginning Net Pension Liability	\$ 45,720,415	\$ 482,533
Ending Net Pension Liability	\$ 61,337,732	\$ 696,756
Total Deferred Outflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 1,085,336	\$ 12,329
◆ Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	8,906,107	101,167
◆ Changes of Assumptions	2,045,713	23,238
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	1,307,462	66,544
◆ Total Deferred Outflows of Resources	\$ 13,344,618	\$ 203,278
Total Deferred Inflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 49,611	\$ 564
◆ Changes of Assumptions	-	\$ -
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	1,307,462	\$ 4,063
◆ Total Deferred Inflows of Resources	\$ 1,357,073	\$ 4,627
Employer Pension Expense:		
◆ Proportionate Share of Plan Pension Expense	\$ 10,642,507	\$ 120,892
◆ Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	20,731
◆ Total Employer Pension Expense	\$ 10,642,507	\$ 141,623
Covered Payroll:	\$ 30,220,970	\$ 347,069
Sensitivity of the Net Pension Liability to changes in the discount rate:		
◆ Current discount rate: 7.75%	\$ 61,337,732	\$ 696,756
◆ 1% decrease in the discount rate: 6.75%	\$ 83,412,315	\$ 947,509
◆ 1% increase in the discount rate: 8.75%	\$ 42,649,017	\$ 484,465
Deferred Outflows of Resources and Deferred Inflows of Resources recognized in Pension Expense:		
◆ 2019	\$ 4,679,836	\$ 75,893
◆ 2020	\$ 2,397,585	\$ 50,178
◆ 2021	\$ 1,665,555	\$ 31,896
◆ 2022	\$ 3,244,569	\$ 40,684
◆ 2023	\$ -	\$ -
◆ Thereafter	\$ (0)	\$ -

Franklin Regional Retirement System
 Financial Reporting and Disclosures Under GASB 67 and GASB 68 as of December 31, 2018

APPENDIX C - SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

Pension Amounts as of December 31, 2018	Franklin Regional Retirement System	Frontier Regional School District
◆ Current Proportionate Share		6.195891%
◆ Prior Proportionate Share		6.211235%
Beginning Net Pension Liability	\$ 45,720,415	\$ 2,839,802
Ending Net Pension Liability	\$ 61,337,732	\$ 3,800,419
Total Deferred Outflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 1,085,336	\$ 67,246
◆ Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	8,906,107	551,813
◆ Changes of Assumptions	2,045,713	126,750
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	1,307,462	61,152
◆ Total Deferred Outflows of Resources	<u>\$ 13,344,618</u>	<u>\$ 806,961</u>
Total Deferred Inflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 49,611	\$ 3,074
◆ Changes of Assumptions	-	\$ -
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	1,307,462	\$ 5,385
◆ Total Deferred Inflows of Resources	<u>\$ 1,357,073</u>	<u>\$ 8,459</u>
Employer Pension Expense:		
◆ Proportionate Share of Plan Pension Expense	\$ 10,642,507	\$ 659,398
◆ Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	30,483
◆ Total Employer Pension Expense	<u>\$ 10,642,507</u>	<u>\$ 689,881</u>
Covered Payroll:	\$ 30,220,970	\$ 1,903,857
Sensitivity of the Net Pension Liability to changes in the discount rate:		
◆ Current discount rate: 7.75%	\$ 61,337,732	\$ 3,800,419
◆ 1% decrease in the discount rate: 6.75%	\$ 83,412,315	\$ 5,168,136
◆ 1% increase in the discount rate: 8.75%	\$ 42,649,017	\$ 2,642,487
Deferred Outflows of Resources and Deferred Inflows of Resources recognized in Pension Expense:		
◆ 2019	\$ 4,679,836	\$ 318,331
◆ 2020	\$ 2,397,585	\$ 169,443
◆ 2021	\$ 1,665,555	\$ 110,428
◆ 2022	\$ 3,244,569	\$ 200,300
◆ 2023	\$ -	\$ -
◆ Thereafter	\$ (0)	\$ -

Franklin Regional Retirement System
 Financial Reporting and Disclosures Under GASB 67 and GASB 68 as of December 31, 2018

APPENDIX C - SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

Pension Amounts as of December 31, 2018	Franklin Regional Retirement System	Town of Gill
◆ Current Proportionate Share		1.540351%
◆ Prior Proportionate Share		1.519420%
<i>Beginning Net Pension Liability</i>	\$ 45,720,415	\$ 694,685
<i>Ending Net Pension Liability</i>	\$ 61,337,732	\$ 944,816
<i>Total Deferred Outflows of Resources:</i>		
◆ Differences Between Expected and Actual Experience	\$ 1,085,336	\$ 16,718
◆ Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	8,906,107	137,185
◆ Changes of Assumptions	2,045,713	31,511
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	1,307,462	36,089
◆ Total Deferred Outflows of Resources	\$ 13,344,618	\$ 221,503
<i>Total Deferred Inflows of Resources:</i>		
◆ Differences Between Expected and Actual Experience	\$ 49,611	\$ 764
◆ Changes of Assumptions	-	\$ -
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	1,307,462	\$ -
◆ Total Deferred Inflows of Resources	\$ 1,357,073	\$ 764
<i>Employer Pension Expense:</i>		
◆ Proportionate Share of Plan Pension Expense	\$ 10,642,507	\$ 163,932
◆ Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	27,214
◆ Total Employer Pension Expense	\$ 10,642,507	\$ 191,146
<i>Covered Payroll:</i>	\$ 30,220,970	\$ 423,080
<i>Sensitivity of the Net Pension Liability to changes in the discount rate:</i>		
◆ Current discount rate: 7.75%	\$ 61,337,732	\$ 944,816
◆ 1% decrease in the discount rate: 6.75%	\$ 83,412,315	\$ 1,284,842
◆ 1% increase in the discount rate: 8.75%	\$ 42,649,017	\$ 656,945
<i>Deferred Outflows of Resources and Deferred Inflows of Resources recognized in Pension Expense:</i>		
◆ 2019	\$ 4,679,836	\$ 93,901
◆ 2020	\$ 2,397,585	\$ 45,905
◆ 2021	\$ 1,665,555	\$ 29,960
◆ 2022	\$ 3,244,569	\$ 50,973
◆ 2023	\$ -	\$ -
◆ Thereafter	\$ (0)	\$ -

Franklin Regional Retirement System
 Financial Reporting and Disclosures Under GASB 67 and GASB 68 as of December 31, 2018

APPENDIX C - SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

Pension Amounts as of December 31, 2018	Franklin Regional Retirement System	Hawlemont Regional School District
◆ Current Proportionate Share		0.853310%
◆ Prior Proportionate Share		0.852100%
Beginning Net Pension Liability	\$ 45,720,415	\$ 389,584
Ending Net Pension Liability	\$ 61,337,732	\$ 523,401
Total Deferred Outflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 1,085,336	\$ 9,261
◆ Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	8,906,107	75,997
◆ Changes of Assumptions	2,045,713	17,456
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	1,307,462	1,789
◆ Total Deferred Outflows of Resources	<u>\$ 13,344,618</u>	<u>\$ 104,503</u>
Total Deferred Inflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 49,611	\$ 423
◆ Changes of Assumptions	-	\$ -
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	1,307,462	\$ 10,967
◆ Total Deferred Inflows of Resources	<u>\$ 1,357,073</u>	<u>\$ 11,390</u>
Employer Pension Expense:		
◆ Proportionate Share of Plan Pension Expense	\$ 10,642,507	\$ 90,814
◆ Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	(3,606)
◆ Total Employer Pension Expense	<u>\$ 10,642,507</u>	<u>\$ 87,208</u>
Covered Payroll:	\$ 30,220,970	\$ 265,877
Sensitivity of the Net Pension Liability to changes in the discount rate:		
◆ Current discount rate: 7.75%	\$ 61,337,732	\$ 523,401
◆ 1% decrease in the discount rate: 6.75%	\$ 83,412,315	\$ 711,766
◆ 1% increase in the discount rate: 8.75%	\$ 42,649,017	\$ 363,929
Deferred Outflows of Resources and Deferred Inflows of Resources recognized in Pension Expense:		
◆ 2019	\$ 4,679,836	\$ 35,655
◆ 2020	\$ 2,397,585	\$ 16,435
◆ 2021	\$ 1,665,555	\$ 13,279
◆ 2022	\$ 3,244,569	\$ 27,744
◆ 2023	\$ -	\$ -
◆ Thereafter	\$ (0)	\$ -

Franklin Regional Retirement System
 Financial Reporting and Disclosures Under GASB 67 and GASB 68 as of December 31, 2018

APPENDIX C - SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

Pension Amounts as of December 31, 2018	Franklin Regional Retirement System	Town of Hawley
◆ Current Proportionate Share		0.416973%
◆ Prior Proportionate Share		0.396999%
Beginning Net Pension Liability	\$ 45,720,415	\$ 181,510
Ending Net Pension Liability	\$ 61,337,732	\$ 255,762
Total Deferred Outflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 1,085,336	\$ 4,526
◆ Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	8,906,107	37,136
◆ Changes of Assumptions	2,045,713	8,530
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	1,307,462	14,787
◆ Total Deferred Outflows of Resources	<u>\$ 13,344,618</u>	<u>\$ 64,979</u>
Total Deferred Inflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 49,611	\$ 207
◆ Changes of Assumptions	-	-
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	1,307,462	\$ 719
◆ Total Deferred Inflows of Resources	<u>\$ 1,357,073</u>	<u>\$ 926</u>
Employer Pension Expense:		
◆ Proportionate Share of Plan Pension Expense	\$ 10,642,507	\$ 44,376
◆ Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	4,702
◆ Total Employer Pension Expense	<u>\$ 10,642,507</u>	<u>\$ 49,078</u>
Covered Payroll:	\$ 30,220,970	\$ 129,031
Sensitivity of the Net Pension Liability to changes in the discount rate:		
◆ Current discount rate: 7.75%	\$ 61,337,732	\$ 255,762
◆ 1% decrease in the discount rate: 6.75%	\$ 83,412,315	\$ 347,807
◆ 1% increase in the discount rate: 8.75%	\$ 42,649,017	\$ 177,835
Deferred Outflows of Resources and Deferred Inflows of Resources recognized in Pension Expense:		
◆ 2019	\$ 4,679,836	\$ 24,571
◆ 2020	\$ 2,397,585	\$ 15,030
◆ 2021	\$ 1,665,555	\$ 9,973
◆ 2022	\$ 3,244,569	\$ 14,479
◆ 2023	\$ -	\$ -
◆ Thereafter	\$ (0)	\$ -

Franklin Regional Retirement System
Financial Reporting and Disclosures Under GASB 67 and GASB 68 as of December 31, 2018

APPENDIX C - SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

Pension Amounts as of December 31, 2018	Franklin Regional Retirement System	Town of Heath
◆ Current Proportionate Share		0.872705%
◆ Prior Proportionate Share		0.861765%
Beginning Net Pension Liability	\$ 45,720,415	\$ 394,003
Ending Net Pension Liability	\$ 61,337,732	\$ 535,298
Total Deferred Outflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 1,085,336	\$ 9,472
◆ Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	8,906,107	77,724
◆ Changes of Assumptions	2,045,713	17,853
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	1,307,462	16,128
◆ Total Deferred Outflows of Resources	\$ 13,344,618	\$ 121,177
Total Deferred Inflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 49,611	\$ 433
◆ Changes of Assumptions	-	\$ -
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	1,307,462	\$ 1,058
◆ Total Deferred Inflows of Resources	\$ 1,357,073	\$ 1,491
Employer Pension Expense:		
◆ Proportionate Share of Plan Pension Expense	\$ 10,642,507	\$ 92,878
◆ Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	6,023
◆ Total Employer Pension Expense	\$ 10,642,507	\$ 98,901
Covered Payroll:	\$ 30,220,970	\$ 272,836
Sensitivity of the Net Pension Liability to changes in the discount rate:		
◆ Current discount rate: 7.75%	\$ 61,337,732	\$ 535,298
◆ 1% decrease in the discount rate: 6.75%	\$ 83,412,315	\$ 727,944
◆ 1% increase in the discount rate: 8.75%	\$ 42,649,017	\$ 372,200
Deferred Outflows of Resources and Deferred Inflows of Resources recognized in Pension Expense:		
◆ 2019	\$ 4,679,836	\$ 47,387
◆ 2020	\$ 2,397,585	\$ 26,667
◆ 2021	\$ 1,665,555	\$ 16,796
◆ 2022	\$ 3,244,569	\$ 28,836
◆ 2023	\$ -	\$ -
◆ Thereafter	\$ (0)	\$ -

Franklin Regional Retirement System
 Financial Reporting and Disclosures Under GASB 67 and GASB 68 as of December 31, 2018

APPENDIX C - SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

Pension Amounts as of December 31, 2018	Franklin Regional Retirement System	Town of Leverett
◆ Current Proportionate Share		3.044940%
◆ Prior Proportionate Share		3.139233%
Beginning Net Pension Liability	\$ 45,720,415	\$ 1,435,270
Ending Net Pension Liability	\$ 61,337,732	\$ 1,867,697
Total Deferred Outflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 1,085,336	\$ 33,048
◆ Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	8,906,107	271,186
◆ Changes of Assumptions	2,045,713	62,291
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	1,307,462	20,470
◆ Total Deferred Outflows of Resources	<u>\$ 13,344,618</u>	<u>\$ 386,995</u>
Total Deferred Inflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 49,611	\$ 1,511
◆ Changes of Assumptions	-	-
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	1,307,462	\$ 43,990
◆ Total Deferred Inflows of Resources	<u>\$ 1,357,073</u>	<u>\$ 45,501</u>
Employer Pension Expense:		
◆ Proportionate Share of Plan Pension Expense	\$ 10,642,507	\$ 324,058
◆ Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	14,518
◆ Total Employer Pension Expense	<u>\$ 10,642,507</u>	<u>\$ 338,576</u>
Covered Payroll:	\$ 30,220,970	\$ 884,987
Sensitivity of the Net Pension Liability to changes in the discount rate:		
◆ Current discount rate: 7.75%	\$ 61,337,732	\$ 1,867,697
◆ 1% decrease in the discount rate: 6.75%	\$ 83,412,315	\$ 2,539,855
◆ 1% increase in the discount rate: 8.75%	\$ 42,649,017	\$ 1,298,637
Deferred Outflows of Resources and Deferred Inflows of Resources recognized in Pension Expense:		
◆ 2019	\$ 4,679,836	\$ 146,935
◆ 2020	\$ 2,397,585	\$ 59,518
◆ 2021	\$ 1,665,555	\$ 40,728
◆ 2022	\$ 3,244,569	\$ 94,313
◆ 2023	\$ -	\$ -
◆ Thereafter	\$ (0)	\$ -

Franklin Regional Retirement System
Financial Reporting and Disclosures Under GASB 67 and GASB 68 as of December 31, 2018

APPENDIX C - SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

Pension Amounts as of December 31, 2018	Franklin Regional Retirement System	Town of Leyden
◆ Current Proportionate Share		0.426655%
◆ Prior Proportionate Share		0.426042%
Beginning Net Pension Liability	\$ 45,720,415	\$ 194,788
Ending Net Pension Liability	\$ 61,337,732	\$ 261,701
Total Deferred Outflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 1,085,336	\$ 4,631
◆ Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	8,906,107	37,998
◆ Changes of Assumptions	2,045,713	8,728
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	1,307,462	10,353
◆ Total Deferred Outflows of Resources	<u>\$ 13,344,618</u>	<u>\$ 61,710</u>
Total Deferred Inflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 49,611	\$ 212
◆ Changes of Assumptions	-	\$ -
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	1,307,462	\$ 758
◆ Total Deferred Inflows of Resources	<u>\$ 1,357,073</u>	<u>\$ 970</u>
Employer Pension Expense:		
◆ Proportionate Share of Plan Pension Expense	\$ 10,642,507	\$ 45,407
◆ Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	3,641
◆ Total Employer Pension Expense	<u>\$ 10,642,507</u>	<u>\$ 49,048</u>
Covered Payroll:	\$ 30,220,970	\$ 133,882
Sensitivity of the Net Pension Liability to changes in the discount rate:		
◆ Current discount rate: 7.75%	\$ 61,337,732	\$ 261,701
◆ 1% decrease in the discount rate: 6.75%	\$ 83,412,315	\$ 355,883
◆ 1% increase in the discount rate: 8.75%	\$ 42,649,017	\$ 181,964
Deferred Outflows of Resources and Deferred Inflows of Resources recognized in Pension Expense:		
◆ 2019	\$ 4,679,836	\$ 23,979
◆ 2020	\$ 2,397,585	\$ 14,263
◆ 2021	\$ 1,665,555	\$ 8,626
◆ 2022	\$ 3,244,569	\$ 13,872
◆ 2023	\$ -	\$ -
◆ Thereafter	\$ (0)	\$ -

Franklin Regional Retirement System
Financial Reporting and Disclosures Under GASB 67 and GASB 68 as of December 31, 2018

APPENDIX C - SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

Pension Amounts as of December 31, 2018	Franklin Regional Retirement System	Mahar Regional School District
◆ Current Proportionate Share		5.003540%
◆ Prior Proportionate Share		4.899509%
Beginning Net Pension Liability	\$ 45,720,415	\$ 2,240,076
Ending Net Pension Liability	\$ 61,337,732	\$ 3,069,058
Total Deferred Outflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 1,085,336	\$ 54,305
◆ Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	8,906,107	445,621
◆ Changes of Assumptions	2,045,713	102,358
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	1,307,462	104,252
◆ Total Deferred Outflows of Resources	<u>\$ 13,344,618</u>	<u>\$ 706,536</u>
Total Deferred Inflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 49,611	\$ 2,482
◆ Changes of Assumptions	-	-
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	1,307,462	-
◆ Total Deferred Inflows of Resources	<u>\$ 1,357,073</u>	<u>\$ 2,482</u>
Employer Pension Expense:		
◆ Proportionate Share of Plan Pension Expense	\$ 10,642,507	\$ 532,502
◆ Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	59,489
◆ Total Employer Pension Expense	<u>\$ 10,642,507</u>	<u>\$ 591,991</u>
Covered Payroll:	\$ 30,220,970	\$ 1,558,480
Sensitivity of the Net Pension Liability to changes in the discount rate:		
◆ Current discount rate: 7.75%	\$ 61,337,732	\$ 3,069,058
◆ 1% decrease in the discount rate: 6.75%	\$ 83,412,315	\$ 4,173,568
◆ 1% increase in the discount rate: 8.75%	\$ 42,649,017	\$ 2,133,961
Deferred Outflows of Resources and Deferred Inflows of Resources recognized in Pension Expense:		
◆ 2019	\$ 4,679,836	\$ 285,602
◆ 2020	\$ 2,397,585	\$ 150,460
◆ 2021	\$ 1,665,555	\$ 100,702
◆ 2022	\$ 3,244,569	\$ 167,290
◆ 2023	\$ -	\$ -
◆ Thereafter	\$ (0)	\$ -

Franklin Regional Retirement System
Financial Reporting and Disclosures Under GASB 67 and GASB 68 as of December 31, 2018

APPENDIX C - SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

Pension Amounts as of December 31, 2018	Franklin Regional Retirement System	Mohawk Regional School District
◆ Current Proportionate Share		9.124692%
◆ Prior Proportionate Share		9.072818%
Beginning Net Pension Liability	\$ 45,720,415	\$ 4,148,130
Ending Net Pension Liability	\$ 61,337,732	\$ 5,596,879
Total Deferred Outflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 1,085,336	\$ 99,034
◆ Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	8,906,107	812,655
◆ Changes of Assumptions	2,045,713	186,665
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	1,307,462	43,450
◆ Total Deferred Outflows of Resources	<u>\$ 13,344,618</u>	<u>\$ 1,141,804</u>
Total Deferred Inflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 49,611	\$ 4,527
◆ Changes of Assumptions	-	-
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	1,307,462	\$ 69,412
◆ Total Deferred Inflows of Resources	<u>\$ 1,357,073</u>	<u>\$ 73,939</u>
Employer Pension Expense:		
◆ Proportionate Share of Plan Pension Expense	\$ 10,642,507	\$ 971,096
◆ Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	4,384
◆ Total Employer Pension Expense	<u>\$ 10,642,507</u>	<u>\$ 975,480</u>
Covered Payroll:	\$ 30,220,970	\$ 2,844,714
Sensitivity of the Net Pension Liability to changes in the discount rate:		
◆ Current discount rate: 7.75%	\$ 61,337,732	\$ 5,596,879
◆ 1% decrease in the discount rate: 6.75%	\$ 83,412,315	\$ 7,611,117
◆ 1% increase in the discount rate: 8.75%	\$ 42,649,017	\$ 3,891,592
Deferred Outflows of Resources and Deferred Inflows of Resources recognized in Pension Expense:		
◆ 2019	\$ 4,679,836	\$ 418,973
◆ 2020	\$ 2,397,585	\$ 198,230
◆ 2021	\$ 1,665,555	\$ 152,139
◆ 2022	\$ 3,244,569	\$ 298,523
◆ 2023	\$ -	\$ -
◆ Thereafter	\$ (0)	\$ -

Franklin Regional Retirement System
Financial Reporting and Disclosures Under GASB 67 and GASB 68 as of December 31, 2018

APPENDIX C - SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

Pension Amounts as of December 31, 2018	Franklin Regional Retirement System	Town of Monroe
◆ Current Proportionate Share		0.300604%
◆ Prior Proportionate Share		0.315791%
Beginning Net Pension Liability	\$ 45,720,415	\$ 144,381
Ending Net Pension Liability	\$ 61,337,732	\$ 184,384
Total Deferred Outflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 1,085,336	\$ 3,263
◆ Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	8,906,107	26,772
◆ Changes of Assumptions	2,045,713	6,150
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	1,307,462	964
◆ Total Deferred Outflows of Resources	<u>\$ 13,344,618</u>	<u>\$ 37,149</u>
Total Deferred Inflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 49,611	\$ 149
◆ Changes of Assumptions	-	-
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	1,307,462	\$ 5,794
◆ Total Deferred Inflows of Resources	<u>\$ 1,357,073</u>	<u>\$ 5,943</u>
Employer Pension Expense:		
◆ Proportionate Share of Plan Pension Expense	\$ 10,642,507	\$ 31,992
◆ Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	(308)
◆ Total Employer Pension Expense	<u>\$ 10,642,507</u>	<u>\$ 31,684</u>
Covered Payroll:	\$ 30,220,970	\$ 94,864
Sensitivity of the Net Pension Liability to changes in the discount rate:		
◆ Current discount rate: 7.75%	\$ 61,337,732	\$ 184,384
◆ 1% decrease in the discount rate: 6.75%	\$ 83,412,315	\$ 250,741
◆ 1% increase in the discount rate: 8.75%	\$ 42,649,017	\$ 128,205
Deferred Outflows of Resources and Deferred Inflows of Resources recognized in Pension Expense:		
◆ 2019	\$ 4,679,836	\$ 13,287
◆ 2020	\$ 2,397,585	\$ 5,487
◆ 2021	\$ 1,665,555	\$ 3,400
◆ 2022	\$ 3,244,569	\$ 9,032
◆ 2023	\$ -	\$ -
◆ Thereafter	\$ (0)	\$ -

Franklin Regional Retirement System
Financial Reporting and Disclosures Under GASB 67 and GASB 68 as of December 31, 2018

APPENDIX C - SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

Pension Amounts as of December 31, 2018	Franklin Regional Retirement System	Town of New Salem
◆ Current Proportionate Share		0.766049%
◆ Prior Proportionate Share		0.735897%
Beginning Net Pension Liability	\$ 45,720,415	\$ 336,455
Ending Net Pension Liability	\$ 61,337,732	\$ 469,877
Total Deferred Outflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 1,085,336	\$ 8,314
◆ Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	8,906,107	68,225
◆ Changes of Assumptions	2,045,713	15,671
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	1,307,462	21,910
◆ Total Deferred Outflows of Resources	<u>\$ 13,344,618</u>	<u>\$ 114,120</u>
Total Deferred Inflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 49,611	\$ 380
◆ Changes of Assumptions	-	-
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	1,307,462	-
◆ Total Deferred Inflows of Resources	<u>\$ 1,357,073</u>	<u>\$ 380</u>
Employer Pension Expense:		
◆ Proportionate Share of Plan Pension Expense	\$ 10,642,507	\$ 81,527
◆ Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	9,044
◆ Total Employer Pension Expense	<u>\$ 10,642,507</u>	<u>\$ 90,571</u>
Covered Payroll:	\$ 30,220,970	\$ 239,217
Sensitivity of the Net Pension Liability to changes in the discount rate:		
◆ Current discount rate: 7.75%	\$ 61,337,732	\$ 469,877
◆ 1% decrease in the discount rate: 6.75%	\$ 83,412,315	\$ 638,979
◆ 1% increase in the discount rate: 8.75%	\$ 42,649,017	\$ 326,712
Deferred Outflows of Resources and Deferred Inflows of Resources recognized in Pension Expense:		
◆ 2019	\$ 4,679,836	\$ 44,521
◆ 2020	\$ 2,397,585	\$ 25,565
◆ 2021	\$ 1,665,555	\$ 17,366
◆ 2022	\$ 3,244,569	\$ 26,288
◆ 2023	\$ -	\$ -
◆ Thereafter	\$ (0)	\$ -

Franklin Regional Retirement System
Financial Reporting and Disclosures Under GASB 67 and GASB 68 as of December 31, 2018

APPENDIX C - SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

Pension Amounts as of December 31, 2018	Franklin Regional Retirement System	New Salem/Wendell Union School District
◆ Current Proportionate Share		2.057818%
◆ Prior Proportionate Share		2.033596%
Beginning Net Pension Liability	\$ 45,720,415	\$ 929,768
Ending Net Pension Liability	\$ 61,337,732	\$ 1,262,219
Total Deferred Outflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 1,085,336	\$ 22,334
◆ Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	8,906,107	183,271
◆ Changes of Assumptions	2,045,713	42,097
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	1,307,462	21,402
◆ Total Deferred Outflows of Resources	\$ 13,344,618	\$ 269,104
Total Deferred Inflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 49,611	\$ 1,021
◆ Changes of Assumptions	-	\$ -
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	1,307,462	\$ 2,657
◆ Total Deferred Inflows of Resources	\$ 1,357,073	\$ 3,678
Employer Pension Expense:		
◆ Proportionate Share of Plan Pension Expense	\$ 10,642,507	\$ 219,003
◆ Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	13,418
◆ Total Employer Pension Expense	\$ 10,642,507	\$ 232,421
Covered Payroll:	\$ 30,220,970	\$ 599,218
Sensitivity of the Net Pension Liability to changes in the discount rate:		
◆ Current discount rate: 7.75%	\$ 61,337,732	\$ 1,262,219
◆ 1% decrease in the discount rate: 6.75%	\$ 83,412,315	\$ 1,716,473
◆ 1% increase in the discount rate: 8.75%	\$ 42,649,017	\$ 877,639
Deferred Outflows of Resources and Deferred Inflows of Resources recognized in Pension Expense:		
◆ 2019	\$ 4,679,836	\$ 106,339
◆ 2020	\$ 2,397,585	\$ 53,297
◆ 2021	\$ 1,665,555	\$ 37,871
◆ 2022	\$ 3,244,569	\$ 67,919
◆ 2023	\$ -	\$ -
◆ Thereafter	\$ (0)	\$ -

Franklin Regional Retirement System
 Financial Reporting and Disclosures Under GASB 67 and GASB 68 as of December 31, 2018

APPENDIX C - SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

Pension Amounts as of December 31, 2018	Franklin Regional Retirement System	Town of Northfield
◆ Current Proportionate Share		2.868527%
◆ Prior Proportionate Share		2.842043%
Beginning Net Pension Liability	\$ 45,720,415	\$ 1,299,394
Ending Net Pension Liability	\$ 61,337,732	\$ 1,759,489
Total Deferred Outflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 1,085,336	\$ 31,133
◆ Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	8,906,107	255,474
◆ Changes of Assumptions	2,045,713	58,682
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	1,307,462	35,194
◆ Total Deferred Outflows of Resources	\$ 13,344,618	\$ 380,483
Total Deferred Inflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 49,611	\$ 1,423
◆ Changes of Assumptions	-	\$ -
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	1,307,462	\$ -
◆ Total Deferred Inflows of Resources	\$ 1,357,073	\$ 1,423
Employer Pension Expense:		
◆ Proportionate Share of Plan Pension Expense	\$ 10,642,507	\$ 305,283
◆ Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	25,478
◆ Total Employer Pension Expense	\$ 10,642,507	\$ 330,761
Covered Payroll:	\$ 30,220,970	\$ 804,329
Sensitivity of the Net Pension Liability to changes in the discount rate:		
◆ Current discount rate: 7.75%	\$ 61,337,732	\$ 1,759,489
◆ 1% decrease in the discount rate: 6.75%	\$ 83,412,315	\$ 2,392,705
◆ 1% increase in the discount rate: 8.75%	\$ 42,649,017	\$ 1,223,399
Deferred Outflows of Resources and Deferred Inflows of Resources recognized in Pension Expense:		
◆ 2019	\$ 4,679,836	\$ 154,158
◆ 2020	\$ 2,397,585	\$ 77,360
◆ 2021	\$ 1,665,555	\$ 53,211
◆ 2022	\$ 3,244,569	\$ 94,331
◆ 2023	\$ -	\$ -
◆ Thereafter	\$ (0)	\$ -

Franklin Regional Retirement System
 Financial Reporting and Disclosures Under GASB 67 and GASB 68 as of December 31, 2018

APPENDIX C - SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

Pension Amounts as of December 31, 2018	Franklin Regional Retirement System	Town of Orange
◆ Current Proportionate Share		14.173646%
◆ Prior Proportionate Share		14.636954%
Beginning Net Pension Liability	\$ 45,720,415	\$ 6,692,078
Ending Net Pension Liability	\$ 61,337,732	\$ 8,693,790
Total Deferred Outflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 1,085,336	\$ 153,831
◆ Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	8,906,107	1,262,320
◆ Changes of Assumptions	2,045,713	289,953
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	1,307,462	164,402
◆ Total Deferred Outflows of Resources	<u>\$ 13,344,618</u>	<u>\$ 1,870,506</u>
Total Deferred Inflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 49,611	\$ 7,031
◆ Changes of Assumptions	-	\$ -
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	1,307,462	\$ 416,009
◆ Total Deferred Inflows of Resources	<u>\$ 1,357,073</u>	<u>\$ 423,040</u>
Employer Pension Expense:		
◆ Proportionate Share of Plan Pension Expense	\$ 10,642,507	\$ 1,508,433
◆ Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	69,652
◆ Total Employer Pension Expense	<u>\$ 10,642,507</u>	<u>\$ 1,578,085</u>
Covered Payroll:	\$ 30,220,970	\$ 4,038,150
Sensitivity of the Net Pension Liability to changes in the discount rate:		
◆ Current discount rate: 7.75%	\$ 61,337,732	\$ 8,693,793
◆ 1% decrease in the discount rate: 6.75%	\$ 83,412,315	\$ 11,822,566
◆ 1% increase in the discount rate: 8.75%	\$ 42,649,017	\$ 6,044,921
Deferred Outflows of Resources and Deferred Inflows of Resources recognized in Pension Expense:		
◆ 2019	\$ 4,679,836	\$ 651,979
◆ 2020	\$ 2,397,585	\$ 196,200
◆ 2021	\$ 1,665,555	\$ 161,439
◆ 2022	\$ 3,244,569	\$ 437,848
◆ 2023	\$ -	\$ -
◆ Thereafter	\$ (0)	\$ -

Franklin Regional Retirement System
 Financial Reporting and Disclosures Under GASB 67 and GASB 68 as of December 31, 2018

APPENDIX C - SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

Pension Amounts as of December 31, 2018	Franklin Regional Retirement System	Orange Housing Authority
◆ Current Proportionate Share		0.135748%
◆ Prior Proportionate Share		0.145246%
Beginning Net Pension Liability	\$ 45,720,415	\$ 66,407
Ending Net Pension Liability	\$ 61,337,732	\$ 83,265
Total Deferred Outflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 1,085,336	\$ 1,473
◆ Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	8,906,107	12,090
◆ Changes of Assumptions	2,045,713	2,777
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	1,307,462	1,246
◆ Total Deferred Outflows of Resources	<u>\$ 13,344,618</u>	<u>\$ 17,586</u>
Total Deferred Inflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 49,611	\$ 67
◆ Changes of Assumptions	-	-
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	1,307,462	\$ 5,699
◆ Total Deferred Inflows of Resources	<u>\$ 1,357,073</u>	<u>\$ 5,766</u>
Employer Pension Expense:		
◆ Proportionate Share of Plan Pension Expense	\$ 10,642,507	\$ 14,447
◆ Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	(1,427)
◆ Total Employer Pension Expense	<u>\$ 10,642,507</u>	<u>\$ 13,020</u>
Covered Payroll:	\$ 30,220,970	\$ 42,237
Sensitivity of the Net Pension Liability to changes in the discount rate:		
◆ Current discount rate: 7.75%	\$ 61,337,732	\$ 83,265
◆ 1% decrease in the discount rate: 6.75%	\$ 83,412,315	\$ 113,231
◆ 1% increase in the discount rate: 8.75%	\$ 42,649,017	\$ 57,895
Deferred Outflows of Resources and Deferred Inflows of Resources recognized in Pension Expense:		
◆ 2019	\$ 4,679,836	\$ 5,071
◆ 2020	\$ 2,397,585	\$ 1,891
◆ 2021	\$ 1,665,555	\$ 905
◆ 2022	\$ 3,244,569	\$ 3,953
◆ 2023	\$ -	\$ -
◆ Thereafter	\$ (0)	\$ -

Franklin Regional Retirement System
Financial Reporting and Disclosures Under GASB 67 and GASB 68 as of December 31, 2018

APPENDIX C - SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

Pension Amounts as of December 31, 2018	Franklin Regional Retirement System	Pioneer Valley Regional School District
◆ Current Proportionate Share		7.267278%
◆ Prior Proportionate Share		7.248417%
Beginning Net Pension Liability	\$ 45,720,415	\$ 3,314,006
Ending Net Pension Liability	\$ 61,337,732	\$ 4,457,583
Total Deferred Outflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 1,085,336	\$ 78,874
◆ Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	8,906,107	647,232
◆ Changes of Assumptions	2,045,713	148,668
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	1,307,462	69,143
◆ Total Deferred Outflows of Resources	<u>\$ 13,344,618</u>	<u>\$ 943,917</u>
Total Deferred Inflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 49,611	\$ 3,605
◆ Changes of Assumptions	-	-
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	1,307,462	-
◆ Total Deferred Inflows of Resources	<u>\$ 1,357,073</u>	<u>\$ 3,605</u>
Employer Pension Expense:		
◆ Proportionate Share of Plan Pension Expense	\$ 10,642,507	\$ 773,421
◆ Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	53,321
◆ Total Employer Pension Expense	<u>\$ 10,642,507</u>	<u>\$ 826,742</u>
Covered Payroll:	\$ 30,220,970	\$ 2,148,102
Sensitivity of the Net Pension Liability to changes in the discount rate:		
◆ Current discount rate: 7.75%	\$ 61,337,732	\$ 4,457,583
◆ 1% decrease in the discount rate: 6.75%	\$ 83,412,315	\$ 6,061,805
◆ 1% increase in the discount rate: 8.75%	\$ 42,649,017	\$ 3,099,422
Deferred Outflows of Resources and Deferred Inflows of Resources recognized in Pension Expense:		
◆ 2019	\$ 4,679,836	\$ 382,080
◆ 2020	\$ 2,397,585	\$ 191,905
◆ 2021	\$ 1,665,555	\$ 129,638
◆ 2022	\$ 3,244,569	\$ 236,689
◆ 2023	\$ -	\$ -
◆ Thereafter	\$ (0)	\$ -

Franklin Regional Retirement System
Financial Reporting and Disclosures Under GASB 67 and GASB 68 as of December 31, 2018

APPENDIX C - SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

Pension Amounts as of December 31, 2018	Franklin Regional Retirement System	Town of Rowe
◆ Current Proportionate Share		2.112360%
◆ Prior Proportionate Share		2.147627%
Beginning Net Pension Liability	\$ 45,720,415	\$ 981,904
Ending Net Pension Liability	\$ 61,337,732	\$ 1,295,674
Total Deferred Outflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 1,085,336	\$ 22,926
◆ Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	8,906,107	188,129
◆ Changes of Assumptions	2,045,713	43,213
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	1,307,462	12,154
◆ Total Deferred Outflows of Resources	<u>\$ 13,344,618</u>	<u>\$ 266,422</u>
Total Deferred Inflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 49,611	\$ 1,048
◆ Changes of Assumptions	-	\$ -
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	1,307,462	\$ 12,633
◆ Total Deferred Inflows of Resources	<u>\$ 1,357,073</u>	<u>\$ 13,681</u>
Employer Pension Expense:		
◆ Proportionate Share of Plan Pension Expense	\$ 10,642,507	\$ 224,808
◆ Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	13,088
◆ Total Employer Pension Expense	<u>\$ 10,642,507</u>	<u>\$ 237,896</u>
Covered Payroll:	\$ 30,220,970	\$ 608,781
Sensitivity of the Net Pension Liability to changes in the discount rate:		
◆ Current discount rate: 7.75%	\$ 61,337,732	\$ 1,295,674
◆ 1% decrease in the discount rate: 6.75%	\$ 83,412,315	\$ 1,761,968
◆ 1% increase in the discount rate: 8.75%	\$ 42,649,017	\$ 900,901
Deferred Outflows of Resources and Deferred Inflows of Resources recognized in Pension Expense:		
◆ 2019	\$ 4,679,836	\$ 106,553
◆ 2020	\$ 2,397,585	\$ 47,482
◆ 2021	\$ 1,665,555	\$ 31,847
◆ 2022	\$ 3,244,569	\$ 66,859
◆ 2023	\$ -	\$ -
◆ Thereafter	\$ (0)	\$ -

Franklin Regional Retirement System
 Financial Reporting and Disclosures Under GASB 67 and GASB 68 as of December 31, 2018

APPENDIX C - SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

Pension Amounts as of December 31, 2018	Franklin Regional Retirement System	Town of Shelburne
◆ Current Proportionate Share		1.861795%
◆ Prior Proportionate Share		1.868793%
Beginning Net Pension Liability	\$ 45,720,415	\$ 854,420
Ending Net Pension Liability	\$ 61,337,732	\$ 1,141,983
Total Deferred Outflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 1,085,336	\$ 20,207
◆ Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	8,906,107	165,813
◆ Changes of Assumptions	2,045,713	38,087
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	1,307,462	8,486
◆ Total Deferred Outflows of Resources	<u>\$ 13,344,618</u>	<u>\$ 232,593</u>
Total Deferred Inflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 49,611	\$ 924
◆ Changes of Assumptions	-	-
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	1,307,462	\$ 2,457
◆ Total Deferred Inflows of Resources	<u>\$ 1,357,073</u>	<u>\$ 3,381</u>
Employer Pension Expense:		
◆ Proportionate Share of Plan Pension Expense	\$ 10,642,507	\$ 198,142
◆ Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	10,472
◆ Total Employer Pension Expense	<u>\$ 10,642,507</u>	<u>\$ 208,614</u>
Covered Payroll:	\$ 30,220,970	\$ 580,390
Sensitivity of the Net Pension Liability to changes in the discount rate:		
◆ Current discount rate: 7.75%	\$ 61,337,732	\$ 1,141,983
◆ 1% decrease in the discount rate: 6.75%	\$ 83,412,315	\$ 1,552,966
◆ 1% increase in the discount rate: 8.75%	\$ 42,649,017	\$ 794,037
Deferred Outflows of Resources and Deferred Inflows of Resources recognized in Pension Expense:		
◆ 2019	\$ 4,679,836	\$ 94,179
◆ 2020	\$ 2,397,585	\$ 44,510
◆ 2021	\$ 1,665,555	\$ 30,449
◆ 2022	\$ 3,244,569	\$ 60,074
◆ 2023	\$ -	\$ -
◆ Thereafter	\$ (0)	\$ -

Franklin Regional Retirement System
Financial Reporting and Disclosures Under GASB 67 and GASB 68 as of December 31, 2018

APPENDIX C - SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

Pension Amounts as of December 31, 2018	Franklin Regional Retirement System	Shelburne Falls Fire District
◆ Current Proportionate Share		0.639983%
◆ Prior Proportionate Share		0.648752%
Beginning Net Pension Liability	\$ 45,720,415	\$ 296,612
Ending Net Pension Liability	\$ 61,337,732	\$ 392,551
Total Deferred Outflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 1,085,336	\$ 6,946
◆ Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	8,906,107	56,998
◆ Changes of Assumptions	2,045,713	13,092
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	1,307,462	3,397
◆ Total Deferred Outflows of Resources	<u>\$ 13,344,618</u>	<u>\$ 80,433</u>
Total Deferred Inflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 49,611	\$ 318
◆ Changes of Assumptions	-	\$ -
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	1,307,462	\$ 4,542
◆ Total Deferred Inflows of Resources	<u>\$ 1,357,073</u>	<u>\$ 4,860</u>
Employer Pension Expense:		
◆ Proportionate Share of Plan Pension Expense	\$ 10,642,507	\$ 68,110
◆ Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	(1,544)
◆ Total Employer Pension Expense	<u>\$ 10,642,507</u>	<u>\$ 66,566</u>
Covered Payroll:	\$ 30,220,970	\$ 200,686
Sensitivity of the Net Pension Liability to changes in the discount rate:		
◆ Current discount rate: 7.75%	\$ 61,337,732	\$ 392,551
◆ 1% decrease in the discount rate: 6.75%	\$ 83,412,315	\$ 533,824
◆ 1% increase in the discount rate: 8.75%	\$ 42,649,017	\$ 272,946
Deferred Outflows of Resources and Deferred Inflows of Resources recognized in Pension Expense:		
◆ 2019	\$ 4,679,836	\$ 29,038
◆ 2020	\$ 2,397,585	\$ 15,769
◆ 2021	\$ 1,665,555	\$ 10,418
◆ 2022	\$ 3,244,569	\$ 20,348
◆ 2023	\$ -	\$ -
◆ Thereafter	\$ (0)	\$ -

Franklin Regional Retirement System
 Financial Reporting and Disclosures Under GASB 67 and GASB 68 as of December 31, 2018

APPENDIX C - SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

Pension Amounts as of December 31, 2018	Franklin Regional Retirement System	Town of Shutesbury
◆ Current Proportionate Share		2.860551%
◆ Prior Proportionate Share		2.808022%
Beginning Net Pension Liability	\$ 45,720,415	\$ 1,283,839
Ending Net Pension Liability	\$ 61,337,732	\$ 1,754,597
Total Deferred Outflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 1,085,336	\$ 31,047
◆ Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	8,906,107	254,764
◆ Changes of Assumptions	2,045,713	58,519
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	1,307,462	29,523
◆ Total Deferred Outflows of Resources	<u>\$ 13,344,618</u>	<u>\$ 373,853</u>
Total Deferred Inflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 49,611	\$ 1,419
◆ Changes of Assumptions	-	-
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	1,307,462	\$ 3,385
◆ Total Deferred Inflows of Resources	<u>\$ 1,357,073</u>	<u>\$ 4,804</u>
Employer Pension Expense:		
◆ Proportionate Share of Plan Pension Expense	\$ 10,642,507	\$ 304,434
◆ Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	17,121
◆ Total Employer Pension Expense	<u>\$ 10,642,507</u>	<u>\$ 321,555</u>
Covered Payroll:	\$ 30,220,970	\$ 892,959
Sensitivity of the Net Pension Liability to changes in the discount rate:		
◆ Current discount rate: 7.75%	\$ 61,337,732	\$ 1,754,597
◆ 1% decrease in the discount rate: 6.75%	\$ 83,412,315	\$ 2,386,052
◆ 1% increase in the discount rate: 8.75%	\$ 42,649,017	\$ 1,219,997
Deferred Outflows of Resources and Deferred Inflows of Resources recognized in Pension Expense:		
◆ 2019	\$ 4,679,836	\$ 146,681
◆ 2020	\$ 2,397,585	\$ 73,655
◆ 2021	\$ 1,665,555	\$ 53,402
◆ 2022	\$ 3,244,569	\$ 95,311
◆ 2023	\$ -	\$ -
◆ Thereafter	\$ (0)	\$ -

Franklin Regional Retirement System
Financial Reporting and Disclosures Under GASB 67 and GASB 68 as of December 31, 2018

APPENDIX C - SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

Pension Amounts as of December 31, 2018	Franklin Regional Retirement System	South Deerfield Fire District
◆ Current Proportionate Share		0.184235%
◆ Prior Proportionate Share		0.193651%
Beginning Net Pension Liability	\$ 45,720,415	\$ 88,538
Ending Net Pension Liability	\$ 61,337,732	\$ 113,006
Total Deferred Outflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 1,085,336	\$ 2,000
◆ Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	8,906,107	16,408
◆ Changes of Assumptions	2,045,713	3,769
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	1,307,462	2,804
◆ Total Deferred Outflows of Resources	<u>\$ 13,344,618</u>	<u>\$ 24,981</u>
Total Deferred Inflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 49,611	\$ 91
◆ Changes of Assumptions	-	-
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	1,307,462	\$ 3,355
◆ Total Deferred Inflows of Resources	<u>\$ 1,357,073</u>	<u>\$ 3,446</u>
Employer Pension Expense:		
◆ Proportionate Share of Plan Pension Expense	\$ 10,642,507	\$ 19,607
◆ Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	329
◆ Total Employer Pension Expense	<u>\$ 10,642,507</u>	<u>\$ 19,936</u>
Covered Payroll:	\$ 30,220,970	\$ 57,116
Sensitivity of the Net Pension Liability to changes in the discount rate:		
◆ Current discount rate: 7.75%	\$ 61,337,732	\$ 113,006
◆ 1% decrease in the discount rate: 6.75%	\$ 83,412,315	\$ 153,675
◆ 1% increase in the discount rate: 8.75%	\$ 42,649,017	\$ 78,575
Deferred Outflows of Resources and Deferred Inflows of Resources recognized in Pension Expense:		
◆ 2019	\$ 4,679,836	\$ 8,872
◆ 2020	\$ 2,397,585	\$ 4,514
◆ 2021	\$ 1,665,555	\$ 2,619
◆ 2022	\$ 3,244,569	\$ 5,530
◆ 2023	\$ -	\$ -
◆ Thereafter	\$ (0)	\$ -

Franklin Regional Retirement System
Financial Reporting and Disclosures Under GASB 67 and GASB 68 as of December 31, 2018

APPENDIX C - SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

Pension Amounts as of December 31, 2018	Franklin Regional Retirement System	South Deerfield Water Supply District
◆ Current Proportionate Share		0.455747%
◆ Prior Proportionate Share		0.464766%
Beginning Net Pension Liability	\$ 45,720,415	\$ 212,493
Ending Net Pension Liability	\$ 61,337,732	\$ 279,545
Total Deferred Outflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 1,085,336	\$ 4,946
◆ Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	8,906,107	40,589
◆ Changes of Assumptions	2,045,713	9,323
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	1,307,462	5,532
◆ Total Deferred Outflows of Resources	<u>\$ 13,344,618</u>	<u>\$ 60,390</u>
Total Deferred Inflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 49,611	\$ 226
◆ Changes of Assumptions	-	-
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	1,307,462	\$ 9,357
◆ Total Deferred Inflows of Resources	<u>\$ 1,357,073</u>	<u>\$ 9,583</u>
Employer Pension Expense:		
◆ Proportionate Share of Plan Pension Expense	\$ 10,642,507	\$ 48,503
◆ Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	3,865
◆ Total Employer Pension Expense	<u>\$ 10,642,507</u>	<u>\$ 52,368</u>
Covered Payroll:	\$ 30,220,970	\$ 143,091
Sensitivity of the Net Pension Liability to changes in the discount rate:		
◆ Current discount rate: 7.75%	\$ 61,337,732	\$ 279,545
◆ 1% decrease in the discount rate: 6.75%	\$ 83,412,315	\$ 380,149
◆ 1% increase in the discount rate: 8.75%	\$ 42,649,017	\$ 194,372
Deferred Outflows of Resources and Deferred Inflows of Resources recognized in Pension Expense:		
◆ 2019	\$ 4,679,836	\$ 23,036
◆ 2020	\$ 2,397,585	\$ 7,913
◆ 2021	\$ 1,665,555	\$ 5,501
◆ 2022	\$ 3,244,569	\$ 14,357
◆ 2023	\$ -	\$ -
◆ Thereafter	\$ (0)	\$ -

Franklin Regional Retirement System
Financial Reporting and Disclosures Under GASB 67 and GASB 68 as of December 31, 2018

APPENDIX C - SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

Pension Amounts as of December 31, 2018	Franklin Regional Retirement System	Town of Sunderland
◆ Current Proportionate Share		3.781759%
◆ Prior Proportionate Share		3.737570%
Beginning Net Pension Liability	\$ 45,720,415	\$ 1,708,832
Ending Net Pension Liability	\$ 61,337,732	\$ 2,319,645
Total Deferred Outflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 1,085,336	\$ 41,045
◆ Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	8,906,107	336,807
◆ Changes of Assumptions	2,045,713	77,364
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	1,307,462	26,810
◆ Total Deferred Outflows of Resources	\$ 13,344,618	\$ 482,026
Total Deferred Inflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 49,611	\$ 1,876
◆ Changes of Assumptions	-	\$ -
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	1,307,462	\$ 16,570
◆ Total Deferred Inflows of Resources	\$ 1,357,073	\$ 18,446
Employer Pension Expense:		
◆ Proportionate Share of Plan Pension Expense	\$ 10,642,507	\$ 402,474
◆ Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	3,838
◆ Total Employer Pension Expense	\$ 10,642,507	\$ 406,312
Covered Payroll:	\$ 30,220,970	\$ 1,178,982
Sensitivity of the Net Pension Liability to changes in the discount rate:		
◆ Current discount rate: 7.75%	\$ 61,337,732	\$ 2,319,645
◆ 1% decrease in the discount rate: 6.75%	\$ 83,412,315	\$ 3,154,452
◆ 1% increase in the discount rate: 8.75%	\$ 42,649,017	\$ 1,612,883
Deferred Outflows of Resources and Deferred Inflows of Resources recognized in Pension Expense:		
◆ 2019	\$ 4,679,836	\$ 178,303
◆ 2020	\$ 2,397,585	\$ 91,838
◆ 2021	\$ 1,665,555	\$ 68,636
◆ 2022	\$ 3,244,569	\$ 124,803
◆ 2023	\$ -	\$ -
◆ Thereafter	\$ (0)	\$ -

Franklin Regional Retirement System
 Financial Reporting and Disclosures Under GASB 67 and GASB 68 as of December 31, 2018

APPENDIX C - SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

Pension Amounts as of December 31, 2018	Franklin Regional Retirement System	Town of Warwick
◆ Current Proportionate Share		0.804839%
◆ Prior Proportionate Share		0.793982%
Beginning Net Pension Liability	\$ 45,720,415	\$ 363,012
Ending Net Pension Liability	\$ 61,337,732	\$ 493,670
Total Deferred Outflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 1,085,336	\$ 8,735
◆ Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	8,906,107	71,680
◆ Changes of Assumptions	2,045,713	16,465
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	1,307,462	6,166
◆ Total Deferred Outflows of Resources	<u>\$ 13,344,618</u>	<u>\$ 103,046</u>
Total Deferred Inflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 49,611	\$ 399
◆ Changes of Assumptions	-	-
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	1,307,462	\$ 2,810
◆ Total Deferred Inflows of Resources	<u>\$ 1,357,073</u>	<u>\$ 3,209</u>
Employer Pension Expense:		
◆ Proportionate Share of Plan Pension Expense	\$ 10,642,507	\$ 85,655
◆ Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	1,362
◆ Total Employer Pension Expense	<u>\$ 10,642,507</u>	<u>\$ 87,017</u>
Covered Payroll:	\$ 30,220,970	\$ 251,001
Sensitivity of the Net Pension Liability to changes in the discount rate:		
◆ Current discount rate: 7.75%	\$ 61,337,732	\$ 493,670
◆ 1% decrease in the discount rate: 6.75%	\$ 83,412,315	\$ 671,335
◆ 1% increase in the discount rate: 8.75%	\$ 42,649,017	\$ 343,256
Deferred Outflows of Resources and Deferred Inflows of Resources recognized in Pension Expense:		
◆ 2019	\$ 4,679,836	\$ 38,511
◆ 2020	\$ 2,397,585	\$ 19,943
◆ 2021	\$ 1,665,555	\$ 14,753
◆ 2022	\$ 3,244,569	\$ 26,630
◆ 2023	\$ -	\$ -
◆ Thereafter	\$ (0)	\$ -

Franklin Regional Retirement System
Financial Reporting and Disclosures Under GASB 67 and GASB 68 as of December 31, 2018

APPENDIX C - SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

Pension Amounts as of December 31, 2018	Franklin Regional Retirement System	Town of Wendell
◆ Current Proportionate Share		0.778205%
◆ Prior Proportionate Share		0.765345%
Beginning Net Pension Liability	\$ 45,720,415	\$ 349,919
Ending Net Pension Liability	\$ 61,337,732	\$ 477,334
Total Deferred Outflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 1,085,336	\$ 8,446
◆ Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	8,906,107	69,308
◆ Changes of Assumptions	2,045,713	15,920
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	1,307,462	23,621
◆ Total Deferred Outflows of Resources	<u>\$ 13,344,618</u>	<u>\$ 117,295</u>
Total Deferred Inflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 49,611	\$ 386
◆ Changes of Assumptions	-	-
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	1,307,462	-
◆ Total Deferred Inflows of Resources	<u>\$ 1,357,073</u>	<u>\$ 386</u>
Employer Pension Expense:		
◆ Proportionate Share of Plan Pension Expense	\$ 10,642,507	\$ 82,821
◆ Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	13,969
◆ Total Employer Pension Expense	<u>\$ 10,642,507</u>	<u>\$ 96,790</u>
Covered Payroll:	\$ 30,220,970	\$ 227,070
Sensitivity of the Net Pension Liability to changes in the discount rate:		
◆ Current discount rate: 7.75%	\$ 61,337,732	\$ 477,334
◆ 1% decrease in the discount rate: 6.75%	\$ 83,412,315	\$ 649,119
◆ 1% increase in the discount rate: 8.75%	\$ 42,649,017	\$ 331,897
Deferred Outflows of Resources and Deferred Inflows of Resources recognized in Pension Expense:		
◆ 2019	\$ 4,679,836	\$ 48,670
◆ 2020	\$ 2,397,585	\$ 26,032
◆ 2021	\$ 1,665,555	\$ 16,346
◆ 2022	\$ 3,244,569	\$ 25,861
◆ 2023	\$ -	\$ -
◆ Thereafter	\$ (0)	\$ -

Franklin Regional Retirement System
Financial Reporting and Disclosures Under GASB 67 and GASB 68 as of December 31, 2018

APPENDIX C - SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

Pension Amounts as of December 31, 2018	Franklin Regional Retirement System	Town of Whately
◆ Current Proportionate Share		2.753895%
◆ Prior Proportionate Share		2.720877%
Beginning Net Pension Liability	\$ 45,720,415	\$ 1,243,996
Ending Net Pension Liability	\$ 61,337,732	\$ 1,689,177
Total Deferred Outflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 1,085,336	\$ 29,889
◆ Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	8,906,107	245,265
◆ Changes of Assumptions	2,045,713	56,337
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	1,307,462	44,246
◆ Total Deferred Outflows of Resources	<u>\$ 13,344,618</u>	<u>\$ 375,737</u>
Total Deferred Inflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 49,611	\$ 1,366
◆ Changes of Assumptions	-	-
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	1,307,462	\$ 5,149
◆ Total Deferred Inflows of Resources	<u>\$ 1,357,073</u>	<u>\$ 6,515</u>
Employer Pension Expense:		
◆ Proportionate Share of Plan Pension Expense	\$ 10,642,507	\$ 293,083
◆ Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	11,221
◆ Total Employer Pension Expense	<u>\$ 10,642,507</u>	<u>\$ 304,304</u>
Covered Payroll:	\$ 30,220,970	\$ 859,326
Sensitivity of the Net Pension Liability to changes in the discount rate:		
◆ Current discount rate: 7.75%	\$ 61,337,732	\$ 1,689,177
◆ 1% decrease in the discount rate: 6.75%	\$ 83,412,315	\$ 2,297,087
◆ 1% increase in the discount rate: 8.75%	\$ 42,649,017	\$ 1,174,509
Deferred Outflows of Resources and Deferred Inflows of Resources recognized in Pension Expense:		
◆ 2019	\$ 4,679,836	\$ 142,635
◆ 2020	\$ 2,397,585	\$ 82,069
◆ 2021	\$ 1,665,555	\$ 53,596
◆ 2022	\$ 3,244,569	\$ 90,922
◆ 2023	\$ -	\$ -
◆ Thereafter	\$ (0)	\$ -

Franklin Regional Retirement System
Financial Reporting and Disclosures Under GASB 67 and GASB 68 as of December 31, 2018

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 4.1%, based on the December 2018 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%.