

FRANKLIN REGIONAL RETIREMENT SYSTEM

FINANCIAL REPORTING AND DISCLOSURES UNDER GASB 67 and GASB 68 as of

December 31, 2015

Prepared by:

KMS Actuaries, LLC 814 Elm Street, Suite 204 Manchester, NH 03101



August 22, 2016

Mr. Dale Kowacki Executive Director Franklin Regional Retirement System 278 Main Street, Suite 311 Greenfield, MA 01301

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. Results are based on liabilities developed in an actuarial valuation performed as of January 1, 2014 and rolled forward to the plan's measurement date of December 31, 2015.

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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Mr. Dale Kowacki August 22, 2016 Page 2

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,

Ida Bournin

Linda L. Bournival, FSA Member, American Academy of Actuaries (603) 792-9494

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INTRODUCTION

GASB 67 and GASB 68

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

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

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

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

The pension plan's fiduciary net position was projected to be available to make all projected benefit payments of current plan members. Therefore, the long-term expected rate of return on pension plan investments was applied to all periods of projected benefit payments to determine the total pension liability.

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

Net Fiduciary Position

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

INTRODUCTION

Total Pension Liability

The Total Pension Liability as of December 31, 2015 shown in this report is based on a roll-forward of liabilities determined as of the most recent valuation date, January 1, 2014. The Total Pension Liability as of the measurement date included a COLA base of \$16,000, increased from \$15,000, effective July 1, 2015. The Total Pension Liability is developed in Exhibit 1.2.

Benefit Changes

Effective July 1, 2015, the COLA base was increased from \$15,000 to \$16,000. All other benefits remained the same from the prior measurement date. The Benefit Change is reflected in the changes in Total Pension Liability in Exhibit 3.1 and is immediately recognized in the 2015 Pension Expense, shown in Exhibit 4.2.

Pension Expense

The Pension Expense for the fiscal year ending December 31, 2015 is \$7,898,834 and is developed in Exhibit 4.2. Pension Expense, as well as the Net Pension Liability and deferred outflows and inflows, are developed for each member unit and is 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:

Trust Fund Composition at Fiscal Year-End \$ Domestic Equity \$ 40,968,202 \$ 43,502,360 14,133,044 Emerging Markets Int'l Equity 3,884,422 3,617,358 Core Fixed Income 20,212,982 21,294,699 Value-Added Fixed Income 4,798,738 4,651,679 Real Estate 18,687,739 17,628,819 Timber/Natural Resources 1,822,953 2,217,983 Alternatives-Private Equity 6,479,716 6,16,677 Hedge Funds 4,844,170 4,812,082 Portable Alpha 607,651 271,025 Overlay 528,145 38,718 Cash 1,027,504 1,370,581 Other (928,062) (981,032) Total Market Value of Assets 118,210,146 118,718,993 \$ 113,358,538 Contributions - employer 5,645,345 5,418,158 Contributions - employer 5,645,345 5,418,158 Contributions - employer 2,971,069 3,270,956 Net investment income 579,359 8,362,434 Benefit payments, including refunds of member contributions	Fiscal Year Ended December 31		2015	,	2014
International Equity 15,275,986 14,133,044 Emerging Markets Int'l Equity 3,884,422 3,617,358 Core Fixed Income 20,212,982 21,294,699 Value-Added Fixed Income 4,798,738 4,651,679 Real Estate 18,687,739 17,628,819 Timber/Natural Resources 1,822,953 2,217,983 Alternatives-Private Equity 6,479,716 6,161,677 Hedge Funds 4,844,170 4,812,082 Portable Alpha 607,651 271,025 Overlay 528,145 38,718 Cash 1,027,504 1,370,581 Other (928,062) (981,032) Total Market Value of Assets \$ 118,718,993 \$ 113,358,538 Contributions - employer 5,645,345 5,418,158 Contributions - employer	Trust Fund Composition at Fiscal Year-End				
Emerging Markets Int'l Equity 3,884,422 3,617,358 Core Fixed Income 20,212,982 21,294,699 Value-Added Fixed Income 4,798,738 4,651,679 Real Estate 18,687,739 17,628,819 Timber/Natural Resources 1,822,953 2,217,983 Alternatives-Private Equity 6,479,716 6,161,677 Hedge Funds 4,844,170 4,812,082 Portable Alpha 607,651 271,025 Overlay 528,145 38,718 Cash 1,027,504 1,370,581 Other (928,062) (981,032) Total Market Value of Assets \$ 118,718,993 \$ 113,358,538 Contributions - employer 5,645,345 5,418,158 Contributions - member 2,971,069 3,270,956 Net investment income 579,359 8,362,434 Benefit payments, including refunds of member contributions (9,235,255) (11,287,291) Administrative expenses (469,365) (403,802) Other - - - Market Value as of en	Domestic Equity	\$	40,968,202	\$	43,502,360
Core Fixed Income 20,212,982 21,294,699 Value-Added Fixed Income 4,798,738 4,651,679 Real Estate 18,687,739 17,628,819 Timber/Natural Resources 1,822,953 2,217,983 Alternatives-Private Equity 6,479,716 6,161,677 Hedge Funds 4,844,170 4,812,082 Portable Alpha 607,651 271,025 Overlay 528,145 38,718 Cash 1,027,504 1,370,581 Other (928,062) (981,032) Total Market Value of Assets \$ 118,718,993 \$ 113,358,538 Contributions - employer 5,645,345 5,418,158 Contributions - member 2,971,069 3,270,956 Net investment income 579,359 8,362,434 Benefit payments, including refunds of member contributions (9,235,255) (11,287,291) Administrative expenses (469,365) (403,802) Other - - - Market Value as of end of year \$ 118,210,146 \$ 118,718,993 Market Value	International Equity		15,275,986		14,133,044
Value-Added Fixed Income 4,798,738 4,651,679 Real Estate 18,687,739 17,628,819 Timber/Natural Resources 1,822,953 2,217,983 Alternatives-Private Equity 6,479,716 6,161,677 Hedge Funds 4,844,170 4,812,082 Portable Alpha 607,651 271,025 Overlay 528,145 38,718 Cash 1,027,504 1,370,581 Other (928,062) (981,032) Total Market Value of Assets \$ 118,718,993 \$ 113,358,538 Contributions - employer 5,645,345 5,418,158 Contributions - employer 5,645,345 5,418,158 Contributions - employer 5,645,345 (403,802) Market value as of beginning of year (9,235,255) (11,287,291) Administrative expenses (469,365) (403,802) Other - - - Market Value as of end of year \$ 118,718,993 \$ 118,718,993 Market value as of end of year (9,235,255) (11,287,291) Administrative expenses (469,365) (403,802) Other<	Emerging Markets Int'l Equity		3,884,422		3,617,358
Real Estate 19,687,739 17,628,819 Timber/Natural Resources 1,822,953 2,217,983 Alternatives-Private Equity 6,479,716 6,161,677 Hedge Funds 4,844,170 4,812,082 Portable Alpha 607,651 271,025 Overlay 528,145 38,718 Cash 1,027,504 1,370,581 Other (928,062) (981,032) Total Market Value of Assets \$ 118,718,993 \$ 113,358,538 Contributions - employer 5,645,345 5,418,158 Contributions - employer 5,645,345 5,418,158 Contributions - member 2,971,069 3,270,956 Net investment income 579,359 8,362,434 Benefit payments, including refunds of member contributions (9,235,255) (11,287,291) Administrative expenses (469,365) (403,802) 0ther Market Value as of end of year \$ 118,210,146 \$ 118,718,993 Market Value as of end of year \$ 118,210,146 \$ 118,718,993 Market Value as of end of year \$ 118,210,146 \$ 118,718,993 Money-Weighted Rate of Retu	Core Fixed Income		20,212,982		21,294,699
Timber/Natural Resources 1,822,953 2,217,983 Alternatives-Private Equity 6,479,716 6,161,677 Hedge Funds 4,844,170 4,812,082 Portable Alpha 607,651 271,025 Overlay 528,145 38,718 Cash 1,027,504 1,370,581 Other (928,062) (981,032) Total Market Value of Assets \$ 118,718,993 \$ 113,358,538 Contributions - employer 5,645,345 5,418,158 Contributions - member 2,971,069 3,270,956 Net investment income 579,359 8,362,434 Benefit payments, including refunds of member contributions (9,235,255) (11,287,291) Administrative expenses (469,365) (403,802) Other - - - Market Value as of end of year \$ 118,210,146 \$ 118,718,993 Money-Weighted Rate of Return 0.57% 7.37% (Gain) / Loss on Pension Plan Investments \$ 9,158,554 \$ 8,668,960 Actual earnings \$ 9,158,554 \$ 8,668,960 Actual earnings \$ 579,359 \$ 3,362,434	Value-Added Fixed Income		4,798,738		4,651,679
Alternatives-Private Equity 6,479,716 6,161,677 Hedge Funds 4,844,170 4,812,082 Portable Alpha 607,651 271,025 Overlay 528,145 38,718 Cash 1,027,504 1,370,581 Other (928,062) (981,032) Total Market Value of Assets \$ 118,718,993 \$ 113,358,538 Contributions - employer 5,645,345 5,418,158 Contributions - member 2,971,069 3,270,956 Net investment income 579,359 8,362,434 Benefit payments, including refunds of member contributions (9,235,255) (11,287,291) Administrative expenses (469,365) (403,802) Other - - - Market Value as of end of year \$ 118,210,146 \$ 118,718,993 Money-Weighted Rate of Return 0.57% 7.37% (Gain) / Loss on Pension Plan Investments \$ 9,158,554 \$ 8,668,960 Actual earnings \$ 9,158,554 \$ 8,668,960 Actual earnings \$ 579,359 \$ 3,362,434	Real Estate		18,687,739		17,628,819
Hedge Funds 4,844,170 4,812,082 Portable Alpha 607,651 271,025 Overlay 528,145 38,718 Cash 1,027,504 1,370,581 Other (928,062) (981,032) Total Market Value of Assets \$ 118,210,146 \$ 118,718,993 Asset Activity Market value as of beginning of year \$ 118,718,993 \$ 113,358,538 Contributions - employer 5,645,345 5,418,158 Contributions - member 2,971,069 3,270,956 Net investment income 579,359 8,362,434 Benefit payments, including refunds of (469,365) (403,802) Other - - - Market Value as of end of year \$ 118,210,146 \$ 118,718,993 Money-Weighted Rate of Return 0.57% 7.37% (Gain) / Loss on Pension Plan Investments \$ 9,158,554 \$ 8,668,960 Actual earnings \$ 579,359 8,362,434	Timber/Natural Resources		1,822,953		2,217,983
Portable Alpha 607,651 271,025 Overlay 528,145 38,718 Cash 1,027,504 1,370,581 Other (928,062) (981,032) Total Market Value of Assets \$ 118,718,993 \$ 118,718,993 Asset Activity Market value as of beginning of year Contributions - employer \$ 118,718,993 \$ 113,358,538 Contributions - employer \$,645,345 5,418,158 5,418,158 Contributions - member 2,971,069 3,270,956 Net investment income 579,359 8,362,434 Benefit payments, including refunds of member contributions (9,235,255) (11,287,291) Administrative expenses (469,365) (403,802) Other - - - Market Value as of end of year \$ 118,210,146 \$ 118,718,993 Money-Weighted Rate of Return 0.57% 7.37% (Gain) / Loss on Pension Plan Investments \$ 9,158,554 \$ 8,668,960 Actual earnings \$ 9,158,554 \$ 8,668,960	Alternatives-Private Equity		6,479,716		6,161,677
Overlay Cash 528,145 38,718 Cash 1,027,504 1,370,581 Other (928,062) (981,032) Total Market Value of Assets \$ 118,210,146 \$ 118,718,993 Asset Activity \$ 118,718,993 \$ 113,358,538 Contributions - employer \$ 5,645,345 \$ 5,418,158 Contributions - member 2,971,069 3,270,956 Net investment income 579,359 8,362,434 Benefit payments, including refunds of member contributions (9,235,255) (11,287,291) Administrative expenses (469,365) (403,802) Other - - Market Value as of end of year \$ 118,210,146 \$ 118,718,993 Money-Weighted Rate of Return 0.57% 7.37% (Gain) / Loss on Pension Plan Investments \$ 9,158,554 \$ 8,668,960 Projected earnings \$ 9,158,554 \$ 8,668,960 Actual earnings \$ 579,359 8,362,434	Hedge Funds		4,844,170		4,812,082
Cash Other 1,027,504 1,370,581 Other (928,062) (981,032) Total Market Value of Assets \$ 118,210,146 \$ 118,718,993 Asset Activity Market value as of beginning of year Contributions - employer \$ 118,718,993 \$ 113,358,538 Contributions - employer 5,645,345 5,418,158 Contributions - member 2,971,069 3,270,956 Net investment income 579,359 8,362,434 Benefit payments, including refunds of member contributions (9,235,255) (11,287,291) Administrative expenses (469,365) (403,802) Other - - Market Value as of end of year \$ 118,210,146 \$ 118,718,993 Money-Weighted Rate of Return 0.57% 7.37% (Gain) / Loss on Pension Plan Investments \$ 9,158,554 \$ 8,668,960 Projected earnings \$ 9,158,554 \$ 8,668,960 Actual earnings \$ 579,359 8,362,434	Portable Alpha		607,651		271,025
Other Total Market Value of Assets (928,062) \$ 118,210,146 (981,032) \$ 118,718,993 Asset Activity \$ 118,718,993 \$ 118,718,993 Market value as of beginning of year Contributions - employer Contributions - member \$ 118,718,993 \$ 113,358,538 Contributions - employer \$ 5,645,345 5,418,158 Contributions - member 2,971,069 3,270,956 Net investment income 579,359 8,362,434 Benefit payments, including refunds of member contributions (9,235,255) (11,287,291) Administrative expenses (469,365) (403,802) Other - - Market Value as of end of year \$ 118,210,146 \$ 118,718,993 Money-Weighted Rate of Return 0.57% 7.37% (Gain) / Loss on Pension Plan Investments Projected earnings Actual earnings \$ 9,158,554 \$ 8,668,960	Overlay		528,145		38,718
Total Market Value of Assets \$ 118,210,146 \$ 118,718,993 Asset Activity Market value as of beginning of year Contributions - employer \$ 118,718,993 \$ 113,358,538 Contributions - employer \$ 5,645,345 5,418,158 Contributions - member 2,971,069 3,270,956 Net investment income 579,359 8,362,434 Benefit payments, including refunds of member contributions (9,235,255) (11,287,291) Administrative expenses (469,365) (403,802) Other - - Market Value as of end of year \$ 118,718,993 \$ 118,718,993 Money-Weighted Rate of Return 0.57% 7.37% (Gain) / Loss on Pension Plan Investments Actual earnings \$ 9,158,554 \$ 8,668,960 State \$ 9,158,554 \$ 8,668,960 Actual earnings \$ 9,158,554 \$ 8,668,960	Cash		1,027,504		1,370,581
Asset Activity Market value as of beginning of year \$ 118,718,993 \$ 113,358,538 Contributions - employer 5,645,345 5,418,158 Contributions - member 2,971,069 3,270,956 Net investment income 579,359 8,362,434 Benefit payments, including refunds of (9,235,255) (11,287,291) Administrative expenses (469,365) (403,802) Other - - Market Value as of end of year \$ 118,210,146 \$ 118,718,993 Money-Weighted Rate of Return 0.57% 7.37% (Gain) / Loss on Pension Plan Investments \$ 9,158,554 \$ 8,668,960 Actual earnings \$ 9,158,554 \$ 8,668,960					
Market value as of beginning of year \$ 118,718,993 \$ 113,358,538 Contributions - employer 5,645,345 5,418,158 Contributions - member 2,971,069 3,270,956 Net investment income 579,359 8,362,434 Benefit payments, including refunds of (9,235,255) (11,287,291) Administrative expenses (469,365) (403,802) Other - - Market Value as of end of year \$ 118,210,146 \$ 118,718,993 Money-Weighted Rate of Return 0.57% 7.37% (Gain) / Loss on Pension Plan Investments \$ 9,158,554 \$ 8,668,960 Actual earnings \$ 9,158,554 \$ 8,668,960	Total Market Value of Assets	\$	118,210,146	\$	118,718,993
Market value as of beginning of year \$ 118,718,993 \$ 113,358,538 Contributions - employer 5,645,345 5,418,158 Contributions - member 2,971,069 3,270,956 Net investment income 579,359 8,362,434 Benefit payments, including refunds of (9,235,255) (11,287,291) Administrative expenses (469,365) (403,802) Other - - Market Value as of end of year \$ 118,210,146 \$ 118,718,993 Money-Weighted Rate of Return 0.57% 7.37% (Gain) / Loss on Pension Plan Investments \$ 9,158,554 \$ 8,668,960 Actual earnings \$ 9,158,554 \$ 8,668,960	Asset Activity				
Contributions - employer 5,645,345 5,418,158 Contributions - member 2,971,069 3,270,956 Net investment income 579,359 8,362,434 Benefit payments, including refunds of member contributions (9,235,255) (11,287,291) Administrative expenses (469,365) (403,802) Other - - Market Value as of end of year \$ 118,210,146 \$ 118,718,993 Money-Weighted Rate of Return 0.57% 7.37% (Gain) / Loss on Pension Plan Investments Projected earnings \$ 9,158,554 \$ 8,668,960 Actual earnings \$ 9,158,554 \$ 8,668,960	-	\$	118,718,993	\$	113,358,538
Contributions - member 2,971,069 3,270,956 Net investment income 579,359 8,362,434 Benefit payments, including refunds of (9,235,255) (11,287,291) Administrative expenses (469,365) (403,802) Other - - Market Value as of end of year \$ 118,210,146 \$ 118,718,993 Money-Weighted Rate of Return 0.57% 7.37% (Gain) / Loss on Pension Plan Investments \$ 9,158,554 \$ 8,668,960 Actual earnings \$ 9,158,554 \$ 8,668,960	• • • •	•			
Net investment income 579,359 8,362,434 Benefit payments, including refunds of member contributions (9,235,255) (11,287,291) Administrative expenses (469,365) (403,802) Other - - Market Value as of end of year \$ 118,210,146 \$ 118,718,993 Money-Weighted Rate of Return 0.57% 7.37% (Gain) / Loss on Pension Plan Investments \$ 9,158,554 \$ 8,668,960 Actual earnings \$ 9,158,554 \$ 8,668,960					
Benefit payments, including refunds of member contributions(9,235,255)(11,287,291)Administrative expenses(469,365)(403,802)OtherMarket Value as of end of year\$ 118,210,146\$ 118,718,993Money-Weighted Rate of Return0.57%7.37%(Gain) / Loss on Pension Plan Investments Projected earnings\$ 9,158,554\$ 8,668,960Actual earnings\$ 9,158,554\$ 8,668,960Actual earnings\$ 9,158,554\$ 8,668,960	Net investment income				
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Administrative expenses (469,365) (403,802) Other - - Market Value as of end of year \$ 118,210,146 \$ 118,718,993 Money-Weighted Rate of Return 0.57% 7.37% (Gain) / Loss on Pension Plan Investments \$ 9,158,554 \$ 8,668,960 Projected earnings \$ 9,158,554 \$ 8,668,960 Actual earnings \$ 579,359 \$ 3,362,434			(9,235,255)		(11,287,291)
Other Market Value as of end of year-\$ 118,210,146\$ 118,718,993Money-Weighted Rate of Return0.57%(Gain) / Loss on Pension Plan Investments Projected earnings\$ 9,158,554\$ 9,158,554\$ 8,668,960Actual earnings\$ 9,158,554\$ 9,158,554\$ 8,668,960\$ 3,362,434	Administrative expenses		· · /		
Money-Weighted Rate of Return0.57%7.37%(Gain) / Loss on Pension Plan Investments Projected earnings\$ 9,158,554\$ 8,668,960Actual earnings579,3598,362,434	•		-		-
(Gain) / Loss on Pension Plan Investments Projected earnings \$ 9,158,554 \$ 8,668,960 Actual earnings 579,359 8,362,434	Market Value as of end of year	\$	118,210,146	\$	118,718,993
Projected earnings \$ 9,158,554 \$ 8,668,960 Actual earnings 579,359 8,362,434	Money-Weighted Rate of Return		0.57%		7.37%
Actual earnings 579,359 8,362,434	(Gain) / Loss on Pension Plan Investments				
6	Projected earnings	\$	9,158,554	\$	8,668,960
(Gain) / Loss on pension plan investments \$ 8,579,195 \$ 306,526	0	_	,	_	
	(Gain) / Loss on pension plan investments	\$	8,579,195	\$	306,526

SECTION 1 - PRINCIPAL VALUATION RESULTS

Exhibit 1.2 - Actuarial Liabilities

The **Total Pension Liability**, developed using the Entry Age Normal funding method, is the portion of the actuarial present value of projected benefit payments that is attributed to past periods of member service. The Total Pension Liability as of January 1, 2014, the date of the most recent actuarial valuation, is presented below, along with the Total Pension Liability as of January 1, 2014 recognizing the increase in the COLA base from \$15,000 to \$16,000:

Valuation Date	<u>January 1, 2014</u>	<u>January 1, 2014</u>
Discount Rate	7.75%	7.75%
Actives	\$ 71,238,211	\$ 71,606,740
Retired and Disabled Members and Beneficiaries	76,792,052	77,214,818
Inactive Members	 3,500,750	 3,500,750
Total Actuarial Accrued Liability	\$ 151,531,013	\$ 152,322,308

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

Service Cost, beginning of year	\$	4,364,987	\$	4,383,811
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The Total Pension Liability was determined from the use of update procedures to roll forward to the pension plan's most recent fiscal year-end, or measurement date, December 31, 2015, amounts from an actuarial valuation as of January 1, 2014. Changes in the Total Pension Liability between the date of the last actuarial valuation and the measurement date recognize the increase in the COLA base from \$15,000 to \$16,000.

Roll Forward Actuarial Valuation Date		<u>January 1, 2015</u>		January 1, 2015 ¹
Discount Rate		7.75%		7.75%
Actives	\$	81,462,445	\$	81,879,819
Retired and Disabled Members and Beneficiaries		71,018,763		71,474,293
Inactive Members		3,772,058		3,772,058
Total Actuarial Accrued Liability	\$	156,253,266	\$	157,126,170
Service Cost, beginning of year	\$	4,703,273	\$	4,723,556
Measurement Period:	Dec	<u>cember 31, 2015</u>	De	<u>cember 31, 2015</u>
Actives	\$	92,843,561	\$	93,315,137
Retired and Disabled Members and Beneficiaries		66,929,596		67,420,430
Inactive Members		4,064,392		4,064,392
Total Actuarial Accrued Liability	\$	163,837,549	\$	164,799,959

The Total Pension Liability increased due to the increase in the COLA base from \$15,000 to \$16,000, as shown below:

Change in Total Pension Liability:	
Assumption change	\$ -
Benefit change (COLA Base increase)	\$ 962,410

¹ Liabilities based on a COLA base of \$16,000.

Franklin Regional Retirement System

Financial Reporting and Disclosures as of December 31, 2015

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, 2015, pension plan membership consisted of the following:

Inactive plan members or beneficiaries currently receiving benefits	554
Inactive plan members entitled to but not yet receiving benefits	557
Active plan members	951
	2,062

Benefits provided:

The System provides retirement, disability and death benefits. Retirement benefits are determined as a percentage of the member's final 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 \$16,000 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, 2014 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.

Exhibit 2.2 - Net Pension Liability

The components of the net pension liability at December 31, 2015, were as follows:

Total pension liability	\$ 164,799,959
Fiduciary net position	(118,210,146)
Net pension liability	\$ 46,589,813
Fiduciary net position as a percentage of the total pension liability	71.73%

Actuarial assumptions:

The total pension liability was determined by an actuarial valuation as of January 1, 2014, rolled forward to the measurement date of December 31, 2015 using the following actuarial assumptions, applied to all periods included in the measurement:

Inflation	2.2% per year
Salary increases	4.25% per year, including longevity
Investment rate of return	7.75%, net of pension plan investment expense, including inflation

Mortality rates were based on the RP-2000 Mortality Table Projected to 2017 with Scale AA. For disabled lives, the mortality rates were based on the RP-2000 Mortality Table set forward two years.

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, 2015 (see the discussion of the pension plan's investment policy) are summarized in the following table:

Asset Class	Target Allocation	Long-Term Expected Real Rates of Return ¹
PRIT Core	45%	6.40%
Large Cap Equity	12%	7.90%
Mid Cap Equity	5%	9.90%
Small Cap Equity	10%	7.60%
International Equity	5%	5.20%
Real Estate	10%	7.90%
Fixed Income	13%	3.20%
Total	100%	

¹ Provided by Dahab Associates, Inc. (inclusive of fees).

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.

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:

	Current					
	1% Decrease (6.75%)		Discount Rate (7.75%)		1% Increase (8.75%)	
Net pension liability	\$	65,423,791	\$	46,589,813	\$	30,538,693

Fiscal Year Ended December 31	 2015	 2014
Total pension liability Service cost Interest Changes of benefit terms Differences between expected and actual experience	\$ 4,703,273 12,116,265 962,410 -	\$ 4,703,273 11,306,271 - -
Changes of assumptions Benefit payments, including refunds of member contributions Net change in total pension liability	\$ - (9,235,255) 8,546,693	\$ - (11,287,291) 4,722,253
Total pension liabilitybeginning Total pension liabilityending (a)	\$ 156,253,266 164,799,959	\$ 151,531,013 156,253,266
Fiduciary net position Contributionsemployer Contributionsmember Net investment income Benefit payments, including refunds of member contributions Administrative expenses Other Net change in fiduciary net position	\$ 5,645,345 2,971,069 579,359 (9,235,255) (469,365) - - (508,847)	\$ 5,418,158 3,270,956 8,362,434 (11,287,291) (403,802) - 5,360,455
Fiduciary net positionbeginning Fiduciary net positionending (b)	\$ 118,718,993 118,210,146	\$ 113,358,538 118,718,993
Net pension liabilityending (a) (b)	\$ 46,589,813	\$ 37,534,273
Fiduciary net position as a percentage of the total pension liability	71.73%	75.98%
Covered payroll ¹ Net pension liability as a percentage of covered payroll	\$ 32,088,838 145.19%	\$ 30,854,652 121.65%

Exhibit 3.1 - Changes in Net Pension Liability and Related Ratios

¹ Covered payroll for 2015 is the 2014 covered payroll, increased by payroll growth of 4%.

Fiscal Year Ended December 31	 2015	 2014
Actuarially determined contribution	\$ 5,645,345	\$ 5,888,495
Contributions in relation to the actuarially determined contribution	 5,645,345	 5,888,495
Contribution deficiency (excess)	\$ 	\$
Covered payroll	\$ 32,088,838	\$ 30,854,652
Contributions as a percentage of covered payroll	17.59%	19.08%

Exhibit 3.2 - Schedule of Employer Contributions

The contribution shown above, \$5,645,345, represents the actual contributions made by member units of the Franklin Regional Retirement System for the 2016 fiscal year.

Fiscal Year Ended December 31	2015	2014
Annual money-weighted rate of return, net of investment expense	0.57%	7.37%

Exhibit 3.3 - Investment Returns

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.

Exhibit 3.4 - Notes to the Required Supplementary Information

Changes of benefit terms:

The COLA base was increased from \$15,000 to \$16,000 effective July 1, 2015.

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 N	ormal
Amortization method	UAAL:	Increasing dollar amount at 4% to reduce the Unfunded Actuarial Accrued Liability to zero on or before June 30, 2035.
	2002 & 2003 ERI	Level dollar amont 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		al Value of Assets is the market value of assets as of a date reduced by the sum of:
	b)	75% of gains and losses of the prior year, 50% of gains and losses of the second prior year and 25% of gains and losses of the third prior year.
	deficiency o market valu	gains and losses are determined by the excess or f the expected return over the actual return on the ue. The actuarial valuation of assets is further to be not less than 90% or more than 110% of market
Inflation	2.2% per ye	ar
Salary increases	4.25% per y	ear, including longevity
Payroll growth	4% per year	
Investment rate of return	7.75%, net c	of pension plan investment expense, including inflation.

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. Balances at December 31, 2015 Amounts Recognized in Pension Expense Deferred Deferred Experience Experience through Outflows of Inflows of Losses Gains December 31, 2015 Resources Resources Year (a) (b) (c) (a) - (c) (b) - (c) \$ 2015 \$ \$ \$ \$ \$ \$ _ 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. Balances at December 31, 2015 Decreases in Amounts Recognized Increases in the in Pension Expense Deferred Deferred the **Total Pension Total Pension** through Outflows of Inflows of Liability Liability December 31, 2015 Resources Resources (a) - (c) (b) - (c) Year (a) (b) (c) 2015 \$ \$ \$ \$ \$ \$ \$ --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. Balances at December 31, 2015 Investment Investment Amounts Recognized in Pension Expense Deferred Deferred Earnings Earnings Less Than Greater Than through Outflows of Inflows of Projected Projected December 31, 2015 Resources Resources Year (a) (b) (c) (a) - (c) (b) - (c) 2014 \$ 306,526 \$ \$ 122,610 183,916 \$ \$ \$ \$ \$ \$ 2015 8,579,195 1,715,839 \$ 6,863,356 -\$ 7,047,272 \$ _

Exhibit 4.1 - Deferred Outflows and Deferred Inflows of Resources

differences	between employer	contributions and	Inflows of Resources ar proportionate share of c ervice life of all active and	ontributions are rec	cognized in Pension	
			Balances at December 31, 2015			
	Changes in	Changes in				
	Proportion and	Proportion and				
	Differences	Differences				
	Between	Between				
	Employer	Employer				
	Contributions	Contributions				
	and	and				
	Proportionate	Proportionate	Amounts Recognized			
	Share of	Share of	in Pension Expense	Deferred	Deferred	
	Contributions	Contributions	through	Outflows of	Inflows of	
	(Outflows)	(Inflows)	December 31, 2015	Resources	Resources	
Year	(a)	(b)	(C)	(a) - (c)	(b) - (c)	
2015	\$ 2,112,832	\$ 2,112,832	\$ -	\$ 2,112,832	\$ 2,112,832	
				\$ 2,112,832	\$ 2,112,832	

Exhibit 4.1 - Deferred Outflows 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	
2015	\$ 1,777,144
2016	\$ 1,777,144
2017	\$ 1,777,144
2018	\$ 1,777,145
2019	\$ 1,715,839
Thereafter	\$ -

Exhibit 4.2 - Pension Expense

Fiscal Year Ended December 31		2015
 Service cost Interest on the total pension liability 	\$	4,703,273
a. Total pension liability, beginning of year 156,253,266		
b. Service cost, beginning of year 4,703,273		
c. Benefit payments, including refunds of employee		
(9,235,255	<u>)</u>	
d. Interest on total pension liability		12,116,265
3. Differences between expected and actual experience		-
4. Changes of benefit terms		962,410
5. Changes of assumptions		-
6. Employee contributions		(2,971,069)
 Projected earnings on pension plan investments 		
a. Fiduciary net position, beginning of year 118,718,993		
b. Employer contributions 5,645,345		
c. Employee contributions 2,971,069		
d. Benefit payments, including refunds of employee		
contributions (9,235,255)	
e. Administrative expenses and other (469,365)	
f. Total projected earnings	-	(9,158,554)
8. Differences between projected and actual earnings on		
plan investments		1,777,144
9. Pension plan administrative expenses		469,365
10. Other changes in fiduciary net position		-
11. Total Pension Expense	\$	7,898,834

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 2015 and 2014, based on employer contributions made for the 2016 fiscal year and 2015 fiscal year, respectively, shows the proportionate relationship of each employer to all employers and each employer's allocation percentage.

	2	015	20	014
Entity	Employer Contribution	Proportionate Share of Total Employer Contribution	Employer Contribution	Proportionate Share of Total Employer Contribution
Town of Ashfield	74,532	1.320238%	74,747	1.310005%
Town of Bernardston	81,061	1.435891%	81,023	1.419997%
Bernardston Fire & Water District	3,264	0.057818%	2,853	0.050001%
Town of Buckland	105,042	1.860683%	99,282	1.740002%
Town of Charlemont	57,667	1.021496%	58,200	1.020005%
Town of Colrain	72,565	1.285395%	62,764	1.099993%
Town of Conway	144,712	2.563386%	146,641	2.570008%
Town of Deerfield	462,969	8.200898%	460,463	8.070006%
Town of Erving	231,212	4.095622%	235,081	4.119995%
Franklin County Regional Housing Authority		4.653055%	231,087	4.049996%
Franklin County Solid Waste Management I	23,505	0.416363%	22,253	0.390003%
Franklin Regional Council of Governments	-	0.000000%	395,416	6.930002%
Franklin Regional Transit Authority	48,214	0.854049%	53,064	0.929992%
Frontier Regional School District	335,336	5.940044%	334,363	5.859996%
Town of Gill	80,442	1.424926%	69,611	1.219992%
Hawlemont Regional School District	51,683	0.915498%	50,782	0.889998%
Town of Hawley	20,129	0.356559%	21,112	0.370006%
Town of Heath	44,611	0.790226%	46,217	0.809992%
Town of Leverett	181,364	3.212629%	161,476	2.830004%
Town of Leyden	21,217	0.375832%	22,253	0.390003%
Mahar Regional School District	261,677	4.635270%	247,064	4.330007%
Mohawk Regional School District	536,412	9.501846%	515,239	9.030002%
Town of Monroe	17,953	0.318014%	17,118	0.300008%
Town of New Salem	38,626	0.684210%	38,229	0.669996%
New Salem/Wendell Union School District	114,511	2.028415%	108,411	1.899995%
Town of Northfield	157,001	2.781070%	146,641	2.570008%
Town of Orange	905,685	16.043040%	740,049	12.969989%
Orange Housing Authority	8,161	0.144562%	8,559	0.150004%
Pioneer Valley Regional School District	399,141	7.070267%	378,869	6.640002%
Town of Rowe	121,064	2.144492%	110,694	1.940007%

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 2015 and 2014, based on employer contributions made for the 2016 fiscal year and 2015 fiscal year, respectively, shows the proportionate relationship of each employer to all employers and each employer's allocation percentage.

	2	015	2	014
Entity	Employer Contribution	Proportionate Share of Total Employer Contribution	Employer Contribution	Proportionate Share of Total Employer Contribution
Town of Shelburne	104,998	1.859904%	98,711	1.729994%
Shelburne Falls Fire District	35,906	0.636028%	37,659	0.660006%
Town of Shutesbury	159,401	2.823583%	151,776	2.660004%
South Deerfield Fire District	10,336	0.183089%	10,271	0.180008%
South Deerfield Water Supply District	27,201	0.481831%	22,823	0.399992%
Town of Sunderland	216,523	3.835425%	213,399	3.739999%
Town of Warwick	45,698	0.809481%	45,076	0.789995%
Town of Wendell	38,677	0.685113%	35,376	0.619995%
Town of Whately	144,168	2.553750%	151,205	2.649996%
Total	5,645,345	100.000000%	5,705,857	100.000000%

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 economic 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

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 2015:

- Net pension liability, deferred outflows of resources and pension expense are allocated to each employer based on its proportionate share of Total Employer Contribution shown in Exhibit 4.3.
- Differences between expected and actual experience are zero because the Total Pension Liability was determined from the use of update procedures to roll forward to the pension plan's most recent fiscal year-end which results in all experience during 2015 exactly as expected.
- ♦ Net difference between projected and actual investment earnings (loss on pension plan investments for 2015) is amortized over 5 years, with the first amortized amount recognized in pension expense in 2015. A similar deferred outflow of resources was established during 2014, with the first amortized amount recognized in pension expense in 2014 and the second amortized amount recognized in pension expense in 2015.
- There were no assumption changes during 2015.

For 2015 (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 2015.
- No adjustments have been made for employer contributions made subsequent to the measurement date as defined in paragraph 57 of GASB 68.

SECTION 5 - GLOSSARY OF TERMS

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

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

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

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

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

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

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

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

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

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

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

SECTION 5 - GLOSSARY OF TERMS

GASB – Governmental Accounting Standards Board.

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

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

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

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

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

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

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

APPENDIX A - MONEY-WEIGHTED RATE OF RETURN

	 n Investments/ t External Cash Flows (a)	Periods Invested (b)	Period Weight (c)=(b)÷12	(d)=	=(a) x (1+r _{mw}) ^(c)
Beginning value - January 1, 2015	\$ 118,718,993	12	1.00	\$	119,392,573
Monthly net external cash flows:					
January	(912,502)	11	0.92		(917,247)
February	(436,509)	10	0.83		(438,572)
March	(386,764)	9	0.75		(388,409)
April	(462,210)	8	0.67		(463,957)
Мау	(589,651)	7	0.58		(591,600)
June	(101,527)	6	0.50		(101,815)
July	3,701,377	5	0.42		3,710,113
August	(637,501)	4	0.33		(638,704)
September	(446,840)	3	0.25		(447,472)
October	(450,143)	2	0.17		(450,568)
November	(592,335)	1	0.08		(592,614)
December	138,418	0	0.00		138,418
Ending value - December 31, 2015				\$	118,210,146
Money-weighted rate of return					0.57%

Note: Beginning and ending values are based on amounts reported in the System's 2015 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	Ex	Differences between pected and Actual Experience	Recognition Period (Years)	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
2015	\$	-	4.67	-	-	-	-	-	-	-	-	-	-
Net Incre	ease (Decrease) in Pensi	on Expense	-	-	-	-	-	-	-	-	-	-
Year		Changes of Assumptions	Recognition Period (Years)	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
2015	\$	-	4.67	-	-	-	-	-	-	-	-	-	-
Net Incre	ease (Decrease) in Pensi	on Expense	-	-	-	-	-	-	-	-	-	-
Year	Ea	Differences between bjected and Actual rnings 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	-	-	-	-
Net Incre	ease (Decrease) in Pensi	on Expense	61,305	1,777,144	1,777,144	1,777,144	1,777,145	1,715,839	-	-	-	-

Franklin Regional Retirement Town of Ashfield System **Pension Amounts Proportionate Share** 100.0000% 1.320238% **Beginning Net Pension Liability** \$ 37,534,273 \$ 491,699 **Ending Net Pension Liability** \$ 46,589,813 \$ 615,096 Total Deferred Outflows of Resources: **Differences Between Expected and Actual Experience** \$ \$ -Net Difference Between Projected and Actual Investment 7,047,272 93,041 Earnings on Pension Plan Investments Changes of Assumptions _ 2.112.832 3,000 Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions Total Deferred Outflows of Resources \$ 9,160,104 \$ 96.041 Total Deferred Inflows of Resources: Differences Between Expected and Actual Experience \$ \$ Changes of Assumptions Changes in Proportion and Differences Between 2,112,832 Employer Contributions and Proportionate Share of Contributions Total Deferred Inflows of Resources \$ 2,112,832 \$ Proportionate Share of Plan Pension Expense \$ 7,898,834 \$ 104,283 817 Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions **Total Employer Pension Expense** 7,898,834 \$ 105,100 \$ **Covered Payroll** \$ 32,088,838 \$ 362,953 Franklin Regional Retirement System Financial Reporting and Disclosures as of December 31, 2015

Pension Amounts as of December 31, 2015 for Town of Ashfield

Pension Amounts		Franklin Regional Retirement System		Town of Bernardston	
Proportionate Share		100.0000%		1.435891%	
Beginning Net Pension Liability	\$	37,534,273	\$	532,987	
Ending Net Pension Liability	\$	46,589,813	\$	668,979	
Total Deferred Outflows of Resources:					
Differences Between Expected and Actual Experience	\$	-	\$	-	
Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments		7,047,272		101,191	
Changes of Assumptions		-		-	
Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions		2,112,832		4,656	
Total Deferred Outflows of Resources	\$	9,160,104	\$	105,847	
Total Deferred Inflows of Resources:					
Differences Between Expected and Actual Experience	\$	-	\$	-	
Changes of Assumptions		-		-	
Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions		2,112,832		-	
Total Deferred Inflows of Resources	\$	2,112,832	\$	-	
Proportionate Share of Plan Pension Expense	\$	7,898,834	\$	113,419	
Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions		-		1,269	
Total Employer Pension Expense	\$	7,898,834	\$	114,688	
Covered Payroll lin Regional Retirement System cial Reporting and Disclosures as of December 31, 2015	\$	32,088,838	\$	459,087	

Pension Amounts as of December 31, 2015 for Town of Bernardston

Pension Amounts as of December 31, 2015 for Bernardston Fire & Water District

Pension Amounts		Franklin Regional Retirement System		Bernardston Fire & Water District	
Proportionate Share		100.0000%		0.057818%	
Beginning Net Pension Liability	\$	37,534,273	\$	18,767	
Ending Net Pension Liability	\$	46,589,813	\$	26,937	
Total Deferred Outflows of Resources:					
Differences Between Expected and Actual Experience	\$	-	\$	-	
Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments		7,047,272		4,075	
Changes of Assumptions		-		-	
Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions		2,112,832		2,291	
Total Deferred Outflows of Resources	\$	9,160,104	\$	6,366	
Total Deferred Inflows of Resources:					
Differences Between Expected and Actual Experience	\$	-	\$	-	
Changes of Assumptions		-		-	
Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions		2,112,832		-	
Total Deferred Inflows of Resources	\$	2,112,832	\$	-	
Proportionate Share of Plan Pension Expense	\$	7,898,834	\$	4,567	
Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions		-		624	
Total Employer Pension Expense	\$	7,898,834	\$	5,191	
Covered Payroll klin Regional Retirement System ncial Reporting and Disclosures as of December 31, 2015	\$	32,088,838	\$	7,949	

Franklin Regional Retirement Town of Buckland System **Pension Amounts Proportionate Share** 100.0000% 1.860683% **Beginning Net Pension Liability** \$ 37,534,273 \$ 653,096 **Ending Net Pension Liability** \$ 46,589,813 \$ 866,889 Total Deferred Outflows of Resources: **Differences Between Expected and Actual Experience** \$ \$ Net Difference Between Projected and Actual Investment 7,047,272 131,127 Earnings on Pension Plan Investments Changes of Assumptions _ 2.112.832 Changes in Proportion and Differences Between 35,366 Employer Contributions and Proportionate Share of Contributions Total Deferred Outflows of Resources \$ 9,160,104 \$ 166,493 Total Deferred Inflows of Resources: Differences Between Expected and Actual Experience \$ \$ Changes of Assumptions Changes in Proportion and Differences Between 2,112,832 Employer Contributions and Proportionate Share of Contributions Total Deferred Inflows of Resources \$ 2,112,832 \$ Proportionate Share of Plan Pension Expense \$ 7,898,834 \$ 146,972 9,636 Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions **Total Employer Pension Expense** 7,898,834 \$ 156,608 \$ **Covered Payroll** \$ 32,088,838 \$ 512,246 Franklin Regional Retirement System Financial Reporting and Disclosures as of December 31, 2015

Pension Amounts as of December 31, 2015 for Town of Buckland

Pension Amounts		Franklin Regional Retirement System		Town of Charlemont	
Proportionate Share		100.0000%		1.021496%	
Beginning Net Pension Liability	\$	37,534,273	\$	382,850	
Ending Net Pension Liability	\$	46,589,813	\$	475,913	
Total Deferred Outflows of Resources:					
Differences Between Expected and Actual Experience	\$	-	\$	-	
Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments		7,047,272		71,988	
Changes of Assumptions		-		-	
Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions		2,112,832		438	
Total Deferred Outflows of Resources	\$	9,160,104	\$	72,426	
Total Deferred Inflows of Resources:					
Differences Between Expected and Actual Experience	\$	-	\$	-	
Changes of Assumptions		-		-	
Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions		2,112,832		-	
Total Deferred Inflows of Resources	\$	2,112,832	\$	-	
Proportionate Share of Plan Pension Expense	\$	7,898,834	\$	80,686	
Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions				119	
Total Employer Pension Expense	\$	7,898,834	\$	80,805	
Covered Payroll klin Regional Retirement System incial Reporting and Disclosures as of December 31, 2015	\$	32,088,838	\$	325,159	

Pension Amounts as of December 31, 2015 for Town of Charlemont

Franklin Regional Retirement **Town of Colrain** System **Pension Amounts Proportionate Share** 100.0000% 1.285395% **Beginning Net Pension Liability** \$ 37,534,273 \$ 412,877 **Ending Net Pension Liability** \$ 46,589,813 \$ 598,863 Total Deferred Outflows of Resources: **Differences Between Expected and Actual Experience** \$ \$ Net Difference Between Projected and Actual Investment 7,047,272 90,585 Earnings on Pension Plan Investments Changes of Assumptions _ 2.112.832 54,329 Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions Total Deferred Outflows of Resources \$ 9,160,104 \$ 144,914 Total Deferred Inflows of Resources: Differences Between Expected and Actual Experience \$ \$ Changes of Assumptions Changes in Proportion and Differences Between 2,112,832 Employer Contributions and Proportionate Share of Contributions Total Deferred Inflows of Resources \$ 2,112,832 \$ Proportionate Share of Plan Pension Expense \$ 7,898,834 \$ 101,531 14,803 Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions **Total Employer Pension Expense** 7,898,834 \$ 116,334 \$ **Covered Payroll** \$ 32,088,838 \$ 351,817 Franklin Regional Retirement System Financial Reporting and Disclosures as of December 31, 2015

Pension Amounts as of December 31, 2015 for Town of Colrain

Franklin Regional Retirement **Town of Conway** System **Pension Amounts Proportionate Share** 100.0000% 2.563386% **Beginning Net Pension Liability** \$ 37,534,273 \$ 964,631 **Ending Net Pension Liability** \$ 46,589,813 \$ 1,194,277 Total Deferred Outflows of Resources: **Differences Between Expected and Actual Experience** \$ \$ Net Difference Between Projected and Actual Investment 7,047,272 180,649 Earnings on Pension Plan Investments Changes of Assumptions 2.112.832 Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions Total Deferred Outflows of Resources \$ 9,160,104 \$ 180,649 Total Deferred Inflows of Resources: Differences Between Expected and Actual Experience \$ \$ Changes of Assumptions Changes in Proportion and Differences Between 2,112,832 1,939 Employer Contributions and Proportionate Share of Contributions Total Deferred Inflows of Resources \$ 2,112,832 1,939 \$ 202,478 Proportionate Share of Plan Pension Expense \$ 7,898,834 \$ Net Amortization of Deferred Amounts from Changes in (528)Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions **Total Employer Pension Expense** 7,898,834 \$ 201,950 \$ **Covered Payroll** \$ 32,088,838 \$ 761,927 Franklin Regional Retirement System Financial Reporting and Disclosures as of December 31, 2015

Pension Amounts as of December 31, 2015 for Town of Conway

Franklin Regional Retirement Town of Deerfield System **Pension Amounts Proportionate Share** 100.0000% 8.200898% **Beginning Net Pension Liability** \$ 37,534,273 \$ 3,029,016 **Ending Net Pension Liability** \$ 46,589,813 \$ 3,820,783 Total Deferred Outflows of Resources: **Differences Between Expected and Actual Experience** \$ \$ 577,940 Net Difference Between Projected and Actual Investment 7,047,272 Earnings on Pension Plan Investments Changes of Assumptions _ 2.112.832 Changes in Proportion and Differences Between 38,358 Employer Contributions and Proportionate Share of Contributions Total Deferred Outflows of Resources \$ 9,160,104 \$ 616,298 Total Deferred Inflows of Resources: Differences Between Expected and Actual Experience \$ \$ Changes of Assumptions Changes in Proportion and Differences Between 2,112,832 Employer Contributions and Proportionate Share of Contributions Total Deferred Inflows of Resources \$ 2,112,832 \$ Proportionate Share of Plan Pension Expense \$ 7,898,834 \$ 647,775 Net Amortization of Deferred Amounts from Changes in 10,452 Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions **Total Employer Pension Expense** 7,898,834 \$ 658,227 \$ **Covered Payroll** \$ 32,088,838 \$ 2,648,213 Franklin Regional Retirement System Financial Reporting and Disclosures as of December 31, 2015

Pension Amounts as of December 31, 2015 for Town of Deerfield

Franklin Regional Retirement System Town of Erving **Pension Amounts Proportionate Share** 100.0000% 4.095622% **Beginning Net Pension Liability** \$ 37,534,273 \$ 1,546,412 **Ending Net Pension Liability** \$ 46,589,813 \$ 1,908,143 Total Deferred Outflows of Resources: **Differences Between Expected and Actual Experience** \$ \$ Net Difference Between Projected and Actual Investment 7,047,272 288,630 Earnings on Pension Plan Investments Changes of Assumptions 2.112.832 Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions Total Deferred Outflows of Resources \$ 9,160,104 \$ 288,630 Total Deferred Inflows of Resources: Differences Between Expected and Actual Experience \$ \$ Changes of Assumptions Changes in Proportion and Differences Between 7,144 2,112,832 Employer Contributions and Proportionate Share of Contributions Total Deferred Inflows of Resources \$ 2,112,832 7,144 \$ Proportionate Share of Plan Pension Expense \$ 7,898,834 \$ 323,506 Net Amortization of Deferred Amounts from Changes in (1,946)Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions **Total Employer Pension Expense** 7,898,834 \$ 321,560 \$ **Covered Payroll** \$ 32,088,838 \$ 1,348,376 Franklin Regional Retirement System Financial Reporting and Disclosures as of December 31, 2015

Pension Amounts as of December 31, 2015 for Town of Erving

Pension Amounts as of December 31, 2015 for Franklin County Regional Housing Authority

Pension Amounts		nklin Regional Retirement System	Franklin County Regional Housing Authority		
Proportionate Share		100.0000%		4.653055%	
Beginning Net Pension Liability	\$	37,534,273	\$	1,520,138	
Ending Net Pension Liability	\$	46,589,813	\$	2,167,850	
Total Deferred Outflows of Resources:					
Differences Between Expected and Actual Experience	\$	-	\$	-	
Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments		7,047,272		327,913	
Changes of Assumptions		-		-	
Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions		2,112,832		176,720	
Total Deferred Outflows of Resources	\$	9,160,104	\$	504,633	
Total Deferred Inflows of Resources:					
Differences Between Expected and Actual Experience	\$	-	\$	-	
Changes of Assumptions		-		-	
Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions		2,112,832		-	
Total Deferred Inflows of Resources	\$	2,112,832	\$	-	
Proportionate Share of Plan Pension Expense	\$	7,898,834	\$	367,537	
Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions		-		48,153	
Total Employer Pension Expense	\$	7,898,834	\$	415,690	
Covered Payroll klin Regional Retirement System ncial Reporting and Disclosures as of December 31, 2015	\$	32,088,838	\$	1,249,040	

Pension Amounts as of December 31, 2015 for Franklin County Solid Waste Management District

Pension Amounts	nklin Regional Retirement System	S	nklin County olid Waste anagement District
Proportionate Share	100.0000%		0.416363%
Beginning Net Pension Liability	\$ 37,534,273	\$	146,384
Ending Net Pension Liability	\$ 46,589,813	\$	193,983
Total Deferred Outflows of Resources:			
Differences Between Expected and Actual Experience	\$ -	\$	-
Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	7,047,272		29,342
Changes of Assumptions	-		-
Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	2,112,832		7,725
Total Deferred Outflows of Resources	\$ 9,160,104	\$	37,067
Total Deferred Inflows of Resources:			
Differences Between Expected and Actual Experience	\$ -	\$	-
Changes of Assumptions	-		-
Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	2,112,832		-
Total Deferred Inflows of Resources	\$ 2,112,832	\$	-
Proportionate Share of Plan Pension Expense	\$ 7,898,834	\$	32,888
Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	 -		2,105
Total Employer Pension Expense	\$ 7,898,834	\$	34,993
Covered Payroll klin Regional Retirement System ncial Reporting and Disclosures as of December 31, 2015	\$ 32,088,838	\$	133,118

Pension Amounts as of December 31, 2015 for Franklin Regional Council of Governments

Franklin Regional Retirement System		Retirement	(Franklin Regional Council of Governments	
Proportionate Share		100.0000%		0.000000%	
Beginning Net Pension Liability	\$	37,534,273	\$	2,601,125	
Ending Net Pension Liability	\$	46,589,813	\$	-	
Total Deferred Outflows of Resources:					
Differences Between Expected and Actual Experience	\$	-	\$	-	
Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments		7,047,272		-	
Changes of Assumptions		-		-	
Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions		2,112,832		-	
Total Deferred Outflows of Resources	\$	9,160,104	\$	-	
Total Deferred Inflows of Resources:					
Differences Between Expected and Actual Experience	\$	-	\$	-	
Changes of Assumptions		-		-	
Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions		2,112,832		2,030,781	
Total Deferred Inflows of Resources	\$	2,112,832	\$	2,030,781	
Proportionate Share of Plan Pension Expense	\$	7,898,834	\$	-	
Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions		-		(553,350)	
Total Employer Pension Expense	\$	7,898,834	\$	(553,350)	
Covered Payroll klin Regional Retirement System incial Reporting and Disclosures as of December 31, 2015	\$	32,088,838	\$	2,245,754	

Pension Amounts as of December 31, 2015 for Franklin Regional Transit Authority

Pension Amounts		nklin Regional Retirement System	Franklin Regional Transit Authority		
Proportionate Share		100.0000%		0.854049%	
Beginning Net Pension Liability	\$	37,534,273	\$	349,069	
Ending Net Pension Liability	\$	46,589,813	\$	397,900	
Total Deferred Outflows of Resources:					
Differences Between Expected and Actual Experience	\$	-	\$	-	
Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments		7,047,272		60,187	
Changes of Assumptions		-		-	
Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions		2,112,832		-	
Total Deferred Outflows of Resources	\$	9,160,104	\$	60,187	
Total Deferred Inflows of Resources:					
Differences Between Expected and Actual Experience	\$	-	\$	-	
Changes of Assumptions		-		-	
Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions		2,112,832		22,257	
Total Deferred Inflows of Resources	\$	2,112,832	\$	22,257	
Proportionate Share of Plan Pension Expense	\$	7,898,834	\$	67,460	
Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions		-		(6,064)	
Total Employer Pension Expense	\$	7,898,834	\$	61,396	
Covered Payroll klin Regional Retirement System ncial Reporting and Disclosures as of December 31, 2015	\$	32,088,838	\$	341,220	

Pension Amounts as of December 31, 2015 for Frontier Regional School District

Pension Amounts		Franklin Regional Retirement System		Frontier Regional School District	
Proportionate Share		100.0000%		5.940044%	
Beginning Net Pension Liability	\$	37,534,273	\$	2,199,508	
Ending Net Pension Liability	\$	46,589,813	\$	2,767,456	
Total Deferred Outflows of Resources:					
Differences Between Expected and Actual Experience	\$	-	\$	-	
Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments		7,047,272		418,611	
Changes of Assumptions		-		-	
Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions		2,112,832		23,457	
Total Deferred Outflows of Resources	\$	9,160,104	\$	442,068	
Total Deferred Inflows of Resources:					
Differences Between Expected and Actual Experience	\$	-	\$	-	
Changes of Assumptions		-		-	
Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions		2,112,832		-	
Total Deferred Inflows of Resources	\$	2,112,832	\$	-	
Proportionate Share of Plan Pension Expense	\$	7,898,834	\$	469,194	
Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions		-		6,391	
Total Employer Pension Expense	\$	7,898,834	\$	475,585	
Covered Payroll klin Regional Retirement System incial Reporting and Disclosures as of December 31, 2015	\$	32,088,838	\$	1,785,820	

Pension Amounts		nklin Regional Retirement System	own of Gill	
Proportionate Share		100.0000%		1.424926%
Beginning Net Pension Liability	\$	37,534,273	\$	457,918
Ending Net Pension Liability	\$	46,589,813	\$	663,870
Total Deferred Outflows of Resources:				
Differences Between Expected and Actual Experience	\$	-	\$	-
Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments		7,047,272		100,418
Changes of Assumptions		-		-
Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions		2,112,832		60,053
Total Deferred Outflows of Resources	\$	9,160,104	\$	160,471
Total Deferred Inflows of Resources:				
Differences Between Expected and Actual Experience	\$	-	\$	-
Changes of Assumptions		-		-
Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions		2,112,832		-
Total Deferred Inflows of Resources	\$	2,112,832	\$	-
Proportionate Share of Plan Pension Expense	\$	7,898,834	\$	112,553
Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions		-		16,363
Total Employer Pension Expense	\$	7,898,834	\$	128,916
Covered Payroll In Regional Retirement System Incial Reporting and Disclosures as of December 31, 2015	\$	32,088,838	\$	440,991

Pension Amounts as of December 31, 2015 for Town of Gill

Pension Amounts as of December 31, 2015 for Hawlemont Regional School District

Pension Amounts	Franklin Regional Retirement System		Hawlemont Regional School District	
Proportionate Share		100.0000%	0.915498%	
Beginning Net Pension Liability	\$	37,534,273	\$ 334,055	
Ending Net Pension Liability	\$	46,589,813	\$ 426,529	
Total Deferred Outflows of Resources:				
Differences Between Expected and Actual Experience	\$	-	\$ -	
Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments		7,047,272	64,518	
Changes of Assumptions		-	-	
Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions		2,112,832	7,471	
Total Deferred Outflows of Resources	\$	9,160,104	\$ 71,989	
Total Deferred Inflows of Resources:				
Differences Between Expected and Actual Experience	\$	-	\$ -	
Changes of Assumptions		-	-	
Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions		2,112,832	-	
Total Deferred Inflows of Resources	\$	2,112,832	\$ -	
Proportionate Share of Plan Pension Expense	\$	7,898,834	\$ 72,314	
Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions		-	2,036	
Total Employer Pension Expense	\$	7,898,834	\$ 74,350	
Covered Payroll klin Regional Retirement System ncial Reporting and Disclosures as of December 31, 2015	\$	32,088,838	\$ 251,290	

Franklin Regional Retirement System Town of Hawley **Pension Amounts Proportionate Share** 100.0000% 0.356559% **Beginning Net Pension Liability** \$ 37,534,273 \$ 138,877 **Ending Net Pension Liability** \$ 46,589,813 \$ 166,120 Total Deferred Outflows of Resources: **Differences Between Expected and Actual Experience** \$ \$ 25,128 Net Difference Between Projected and Actual Investment 7,047,272 Earnings on Pension Plan Investments Changes of Assumptions Changes in Proportion and Differences Between 2.112.832 Employer Contributions and Proportionate Share of Contributions Total Deferred Outflows of Resources \$ 9,160,104 \$ 25,128 Total Deferred Inflows of Resources: Differences Between Expected and Actual Experience \$ \$ Changes of Assumptions Changes in Proportion and Differences Between 2,112,832 3,939 Employer Contributions and Proportionate Share of Contributions Total Deferred Inflows of Resources \$ 2,112,832 3,939 \$ Proportionate Share of Plan Pension Expense \$ 7,898,834 \$ 28,164 Net Amortization of Deferred Amounts from Changes in (1,073)Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions **Total Employer Pension Expense** 7,898,834 \$ 27,091 \$ **Covered Payroll** \$ 32,088,838 \$ 122,889 Franklin Regional Retirement System Financial Reporting and Disclosures as of December 31, 2015

Pension Amounts as of December 31, 2015 for Town of Hawley

Pension Amounts		nklin Regional Retirement System	Town of Heath		
Proportionate Share		100.0000%		0.790226%	
Beginning Net Pension Liability	\$	37,534,273	\$	304,028	
Ending Net Pension Liability	\$	46,589,813	\$	368,165	
Total Deferred Outflows of Resources:					
Differences Between Expected and Actual Experience	\$	-	\$	-	
Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments		7,047,272		55,689	
Changes of Assumptions		-		-	
Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions		2,112,832		-	
Total Deferred Outflows of Resources	\$	9,160,104	\$	55,689	
Total Deferred Inflows of Resources:					
Differences Between Expected and Actual Experience	\$	-	\$	-	
Changes of Assumptions		-		-	
Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions		2,112,832		5,795	
Total Deferred Inflows of Resources	\$	2,112,832	\$	5,795	
Proportionate Share of Plan Pension Expense	\$	7,898,834	\$	62,419	
Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions		-		(1,579	
Total Employer Pension Expense	\$	7,898,834	\$	60,840	
Covered Payroll klin Regional Retirement System ncial Reporting and Disclosures as of December 31, 2015	\$	32,088,838	\$	311,170	

Pension Amounts as of December 31, 2015 for Town of Heath

Franklin Regional Retirement Town of Leverett System **Pension Amounts Proportionate Share** 100.0000% 3.212629% **Beginning Net Pension Liability** \$ 37,534,273 \$ 1,062,220 **Ending Net Pension Liability** \$ 46,589,813 \$ 1,496,758 Total Deferred Outflows of Resources: **Differences Between Expected and Actual Experience** \$ \$ Net Difference Between Projected and Actual Investment 7,047,272 226,403 Earnings on Pension Plan Investments Changes of Assumptions Changes in Proportion and Differences Between 2.112.832 112.127 Employer Contributions and Proportionate Share of Contributions Total Deferred Outflows of Resources \$ 9,160,104 \$ 338,530 Total Deferred Inflows of Resources: Differences Between Expected and Actual Experience \$ \$ Changes of Assumptions Changes in Proportion and Differences Between 2,112,832 Employer Contributions and Proportionate Share of Contributions Total Deferred Inflows of Resources \$ 2,112,832 \$ Proportionate Share of Plan Pension Expense \$ 7,898,834 \$ 253,760 Net Amortization of Deferred Amounts from Changes in 30,552 Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions **Total Employer Pension Expense** 7,898,834 \$ 284,312 \$ **Covered Payroll** \$ 32,088,838 \$ 900,554 Franklin Regional Retirement System Financial Reporting and Disclosures as of December 31, 2015

Pension Amounts as of December 31, 2015 for Town of Leverett

Franklin Regional Retirement System Town of Leyden **Pension Amounts Proportionate Share** 100.0000% 0.375832% **Beginning Net Pension Liability** \$ 37,534,273 \$ 146,384 **Ending Net Pension Liability** \$ 46,589,813 \$ 175,099 Total Deferred Outflows of Resources: **Differences Between Expected and Actual Experience** \$ \$ Net Difference Between Projected and Actual Investment 7,047,272 26,486 Earnings on Pension Plan Investments Changes of Assumptions Changes in Proportion and Differences Between 2.112.832 Employer Contributions and Proportionate Share of Contributions Total Deferred Outflows of Resources \$ 9,160,104 \$ 26,486 Total Deferred Inflows of Resources: Differences Between Expected and Actual Experience \$ \$ Changes of Assumptions Changes in Proportion and Differences Between 2,112,832 4,153 Employer Contributions and Proportionate Share of Contributions Total Deferred Inflows of Resources \$ 2,112,832 4,153 \$ Proportionate Share of Plan Pension Expense \$ 7,898,834 \$ 29,686 Net Amortization of Deferred Amounts from Changes in (1, 131)Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions **Total Employer Pension Expense** 7,898,834 \$ 28,555 \$ **Covered Payroll** \$ 32,088,838 \$ 117,334 Franklin Regional Retirement System Financial Reporting and Disclosures as of December 31, 2015

Pension Amounts as of December 31, 2015 for Town of Leyden

Pension Amounts as of December 31, 2015 for Mahar Regional School District

Pension Amounts		Franklin Regional Retirement System		har Regional hool District
Proportionate Share		100.0000%		4.635270%
Beginning Net Pension Liability	\$	37,534,273	\$	1,625,234
Ending Net Pension Liability	\$	46,589,813	\$	2,159,564
Total Deferred Outflows of Resources:				
Differences Between Expected and Actual Experience	\$	-	\$	-
Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments		7,047,272		326,660
Changes of Assumptions		-		-
Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions		2,112,832		89,457
Total Deferred Outflows of Resources	\$	9,160,104	\$	416,117
Total Deferred Inflows of Resources:				
Differences Between Expected and Actual Experience	\$	-	\$	-
Changes of Assumptions		-		-
Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions		2,112,832		-
Total Deferred Inflows of Resources	\$	2,112,832	\$	-
Proportionate Share of Plan Pension Expense	\$	7,898,834	\$	366,132
Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions		-		24,375
Total Employer Pension Expense	\$	7,898,834	\$	390,507
Covered Payroll klin Regional Retirement System incial Reporting and Disclosures as of December 31, 2015	\$	32,088,838	\$	1,505,112

Pension Amounts as of December 31, 2015 for Mohawk Regional School District

Pension Amounts Proportionate Share		Franklin Regional Retirement System		Mohawk Regional School District	
		100.0000%		9.501846%	
Beginning Net Pension Liability	\$	37,534,273	\$	3,389,345	
Ending Net Pension Liability	\$	46,589,813	\$	4,426,891	
Total Deferred Outflows of Resources:					
Differences Between Expected and Actual Experience	\$	-	\$	-	
Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments		7,047,272		669,619	
Changes of Assumptions		-		-	
Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions		2,112,832		138,273	
Total Deferred Outflows of Resources	\$	9,160,104	\$	807,892	
Total Deferred Inflows of Resources:					
Differences Between Expected and Actual Experience	\$	-	\$	-	
Changes of Assumptions		-		-	
Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions		2,112,832		-	
Total Deferred Inflows of Resources	\$	2,112,832	\$	-	
Proportionate Share of Plan Pension Expense	\$	7,898,834	\$	750,535	
Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions		-		37,683	
Total Employer Pension Expense	\$	7,898,834	\$	788,218	
Covered Payroll In Regional Retirement System Incial Reporting and Disclosures as of December 31, 2015	\$	32,088,838	\$	2,925,682	

Franklin Regional Retirement Town of Monroe **Pension Amounts** System **Proportionate Share** 100.0000% 0.318014% **Beginning Net Pension Liability** \$ 37,534,273 \$ 112,603 **Ending Net Pension Liability** \$ 46,589,813 \$ 148,162 Total Deferred Outflows of Resources: **Differences Between Expected and Actual Experience** \$ \$ Net Difference Between Projected and Actual Investment 7,047,272 22,411 Earnings on Pension Plan Investments Changes of Assumptions _ Changes in Proportion and Differences Between 2.112.832 5,279 Employer Contributions and Proportionate Share of Contributions Total Deferred Outflows of Resources \$ 9,160,104 \$ 27,690 Total Deferred Inflows of Resources: Differences Between Expected and Actual Experience \$ \$ Changes of Assumptions Changes in Proportion and Differences Between 2,112,832 Employer Contributions and Proportionate Share of Contributions Total Deferred Inflows of Resources \$ 2,112,832 \$ Proportionate Share of Plan Pension Expense \$ 7,898,834 \$ 25,119 1,438 Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions **Total Employer Pension Expense** 7,898,834 \$ 26,557 \$ **Covered Payroll** \$ 32,088,838 \$ 92,629 Franklin Regional Retirement System Financial Reporting and Disclosures as of December 31, 2015

Pension Amounts as of December 31, 2015 for Town of Monroe

Pension Amounts		Franklin Regional Retirement System		Town of New Salem	
Proportionate Share		100.0000%		0.684210%	
Beginning Net Pension Liability	\$	37,534,273	\$	251,480	
Ending Net Pension Liability	\$	46,589,813	\$	318,772	
Total Deferred Outflows of Resources:					
Differences Between Expected and Actual Experience	\$	-	\$	-	
Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments		7,047,272		48,218	
Changes of Assumptions		-		-	
Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions		2,112,832		4,164	
Total Deferred Outflows of Resources	\$	9,160,104	\$	52,382	
Total Deferred Inflows of Resources:					
Differences Between Expected and Actual Experience	\$	-	\$	-	
Changes of Assumptions		-		-	
Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions		2,112,832		-	
Total Deferred Inflows of Resources	\$	2,112,832	\$	-	
Proportionate Share of Plan Pension Expense	\$	7,898,834	\$	54,045	
Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions		-		1,134	
Total Employer Pension Expense	\$	7,898,834	\$	55,179	
Covered Payroll lin Regional Retirement System cial Reporting and Disclosures as of December 31, 2015	\$	32,088,838	\$	301,672	

Pension Amounts as of December 31, 2015 for Town of New Salem

Pension Amounts as of December 31, 2015 for New Salem/Wendell Union School District

Pension Amounts	Franklin Regional Retirement ts System		New Salem/Wendell Union School District	
Proportionate Share		100.0000%	2.028415%	
Beginning Net Pension Liability	\$	37,534,273	\$ 713,151	
Ending Net Pension Liability	\$	46,589,813	\$ 945,035	
Total Deferred Outflows of Resources:				
Differences Between Expected and Actual Experience	\$	-	\$ -	
Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments		7,047,272	142,948	
Changes of Assumptions		-	-	
Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions		2,112,832	37,631	
Total Deferred Outflows of Resources	\$	9,160,104	\$ 180,579	
Total Deferred Inflows of Resources:				
Differences Between Expected and Actual Experience	\$	-	\$ -	
Changes of Assumptions		-	-	
Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions		2,112,832	-	
Total Deferred Inflows of Resources	\$	2,112,832	\$ -	
Proportionate Share of Plan Pension Expense	\$	7,898,834	\$ 160,221	
Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions		-	10,254	
Total Employer Pension Expense	\$	7,898,834	\$ 170,475	
Covered Payroll klin Regional Retirement System ncial Reporting and Disclosures as of December 31, 2015	\$	32,088,838	\$ 481,779	

Pension Amounts		Franklin Regional Retirement System		Town of Northfield	
Proportionate Share		100.0000%		2.781070%	
Beginning Net Pension Liability	\$	37,534,273	\$	964,631	
Ending Net Pension Liability	\$	46,589,813	\$	1,295,695	
Total Deferred Outflows of Resources:					
Differences Between Expected and Actual Experience	\$	-	\$	-	
Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments		7,047,272		195,990	
Changes of Assumptions		-		-	
Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions		2,112,832		61,852	
Total Deferred Outflows of Resources	\$	9,160,104	\$	257,842	
Total Deferred Inflows of Resources:					
Differences Between Expected and Actual Experience	\$	-	\$	-	
Changes of Assumptions		-		-	
Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions		2,112,832		-	
Total Deferred Inflows of Resources	\$	2,112,832	\$	-	
Proportionate Share of Plan Pension Expense	\$	7,898,834	\$	219,672	
Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions		-		16,853	
Total Employer Pension Expense	\$	7,898,834	\$	236,525	
Covered Payroll lin Regional Retirement System cial Reporting and Disclosures as of December 31, 2015	\$	32,088,838	\$	746,875	

Pension Amounts as of December 31, 2015 for Town of Northfield

Franklin Regional Retirement System **Town of Orange Pension Amounts Proportionate Share** 100.0000% 16.043040% **Beginning Net Pension Liability** \$ 37,534,273 \$ 4,868,195 **Ending Net Pension Liability** \$ 46,589,813 \$ 7,474,423 Total Deferred Outflows of Resources: **Differences Between Expected and Actual Experience** \$ \$ Net Difference Between Projected and Actual Investment 7,047,272 1,130,597 Earnings on Pension Plan Investments Changes of Assumptions _ Changes in Proportion and Differences Between 2.112.832 900.532 Employer Contributions and Proportionate Share of Contributions Total Deferred Outflows of Resources \$ 9,160,104 \$ 2,031,129 Total Deferred Inflows of Resources: Differences Between Expected and Actual Experience \$ \$ Changes of Assumptions Changes in Proportion and Differences Between 2,112,832 Employer Contributions and Proportionate Share of Contributions Total Deferred Inflows of Resources \$ 2,112,832 \$ Proportionate Share of Plan Pension Expense \$ 7,898,834 \$ 1,267,213 Net Amortization of Deferred Amounts from Changes in 245,376 Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions **Total Employer Pension Expense** 7,898,834 \$ 1,512,589 \$ **Covered Payroll** \$ 32,088,838 \$ 4,111,318 Franklin Regional Retirement System Financial Reporting and Disclosures as of December 31, 2015

Pension Amounts as of December 31, 2015 for Town of Orange

Pension Amounts as of December 31, 2015 for Orange Housing Authority

Pension Amounts		Franklin Regional Retirement System		Orange Housing Authority	
Proportionate Share		100.0000%		0.144562%	
Beginning Net Pension Liability	\$	37,534,273	\$	56,301	
Ending Net Pension Liability	\$	46,589,813	\$	67,351	
Total Deferred Outflows of Resources:					
Differences Between Expected and Actual Experience	\$	-	\$	-	
Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments		7,047,272		10,188	
Changes of Assumptions		-		-	
Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions		2,112,832		-	
Total Deferred Outflows of Resources	\$	9,160,104	\$	10,188	
Total Deferred Inflows of Resources:					
Differences Between Expected and Actual Experience	\$	-	\$	-	
Changes of Assumptions		-		-	
Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions		2,112,832		1,593	
Total Deferred Inflows of Resources	\$	2,112,832	\$	1,593	
Proportionate Share of Plan Pension Expense	\$	7,898,834	\$	11,419	
Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions		-		(434)	
Total Employer Pension Expense	\$	7,898,834	\$	10,985	
Covered Payroll In Regional Retirement System Incial Reporting and Disclosures as of December 31, 2015	\$	32,088,838	\$	47,632	

Pension Amounts as of December 31, 2015 for Pioneer Valley Regional School District

Pension Amounts		Franklin Regional Retirement System		Pioneer Valley Regional School District	
Proportionate Share		100.0000%		7.070267%	
Beginning Net Pension Liability	\$	37,534,273	\$	2,492,276	
Ending Net Pension Liability	\$	46,589,813	\$	3,294,024	
Total Deferred Outflows of Resources:					
Differences Between Expected and Actual Experience	\$	-	\$	-	
Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments		7,047,272		498,261	
Changes of Assumptions		-		-	
Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions		2,112,832		126,086	
Total Deferred Outflows of Resources	\$	9,160,104	\$	624,347	
Total Deferred Inflows of Resources:					
Differences Between Expected and Actual Experience	\$	-	\$	-	
Changes of Assumptions		-		-	
Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions		2,112,832		-	
Total Deferred Inflows of Resources	\$	2,112,832	\$	-	
Proportionate Share of Plan Pension Expense	\$	7,898,834	\$	558,469	
Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions		-		34,356	
Total Employer Pension Expense	\$	7,898,834	\$	592,825	
Covered Payroll klin Regional Retirement System ncial Reporting and Disclosures as of December 31, 2015	\$	32,088,838	\$	2,102,198	

Franklin Regional Retirement Town of Rowe System **Pension Amounts Proportionate Share** 100.0000% 2.144492% **Beginning Net Pension Liability** \$ 37,534,273 \$ 728,165 **Ending Net Pension Liability** \$ 46,589,813 \$ 999,115 Total Deferred Outflows of Resources: **Differences Between Expected and Actual Experience** \$ \$ Net Difference Between Projected and Actual Investment 7,047,272 151,128 Earnings on Pension Plan Investments Changes of Assumptions _ 2.112.832 59,925 Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions Total Deferred Outflows of Resources \$ 9,160,104 \$ 211,053 Total Deferred Inflows of Resources: Differences Between Expected and Actual Experience \$ \$ Changes of Assumptions Changes in Proportion and Differences Between 2,112,832 Employer Contributions and Proportionate Share of Contributions Total Deferred Inflows of Resources \$ 2,112,832 \$ Proportionate Share of Plan Pension Expense \$ 7,898,834 \$ 169,390 Net Amortization of Deferred Amounts from Changes in 16,328 Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions **Total Employer Pension Expense** 7,898,834 \$ 185,718 \$ **Covered Payroll** \$ 32,088,838 \$ 650,016 Franklin Regional Retirement System Financial Reporting and Disclosures as of December 31, 2015

Pension Amounts as of December 31, 2015 for Town of Rowe

Franklin Regional Retirement **Town of Shelburne** System **Pension Amounts Proportionate Share** 100.0000% 1.859904% **Beginning Net Pension Liability** \$ 37,534,273 \$ 649,343 **Ending Net Pension Liability** \$ 46,589,813 \$ 866,526 Total Deferred Outflows of Resources: **Differences Between Expected and Actual Experience** \$ \$ Net Difference Between Projected and Actual Investment 7,047,272 131,072 Earnings on Pension Plan Investments Changes of Assumptions _ 2.112.832 38,067 Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions Total Deferred Outflows of Resources \$ 9,160,104 \$ 169,139 Total Deferred Inflows of Resources: Differences Between Expected and Actual Experience \$ \$ Changes of Assumptions Changes in Proportion and Differences Between 2,112,832 Employer Contributions and Proportionate Share of Contributions Total Deferred Inflows of Resources \$ 2,112,832 \$ Proportionate Share of Plan Pension Expense \$ 7,898,834 \$ 146,911 Net Amortization of Deferred Amounts from Changes in 10,372 Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions **Total Employer Pension Expense** 7,898,834 \$ 157,283 \$ **Covered Payroll** \$ 32,088,838 \$ 635,835 Franklin Regional Retirement System Financial Reporting and Disclosures as of December 31, 2015

Pension Amounts as of December 31, 2015 for Town of Shelburne

Pension Amounts as of December 31, 2015 for Shelburne Falls Fire District

Pension Amounts		Franklin Regional Retirement System		Shelburne Falls Fire District	
Proportionate Share		100.0000%		0.636028%	
Beginning Net Pension Liability	\$	37,534,273	\$	247,726	
Ending Net Pension Liability	\$	46,589,813	\$	296,324	
Total Deferred Outflows of Resources:					
Differences Between Expected and Actual Experience	\$	-	\$	-	
Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments		7,047,272		44,823	
Changes of Assumptions		-		-	
Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions		2,112,832		-	
Total Deferred Outflows of Resources	\$	9,160,104	\$	44,823	
Total Deferred Inflows of Resources:					
Differences Between Expected and Actual Experience	\$	-	\$	-	
Changes of Assumptions		-		-	
Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions		2,112,832		7,025	
Total Deferred Inflows of Resources	\$	2,112,832	\$	7,025	
Proportionate Share of Plan Pension Expense	\$	7,898,834	\$	50,239	
Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions		-		(1,914)	
Total Employer Pension Expense	\$	7,898,834	\$	48,325	
Covered Payroll In Regional Retirement System Incial Reporting and Disclosures as of December 31, 2015	\$	32,088,838	\$	196,006	

Pension Amounts		Franklin Regional Retirement System		Town of Shutesbury	
Proportionate Share		100.0000%		2.823583%	
Beginning Net Pension Liability	\$	37,534,273	\$	998,412	
Ending Net Pension Liability	\$	46,589,813	\$	1,315,502	
Total Deferred Outflows of Resources:					
Differences Between Expected and Actual Experience	\$	-	\$	-	
Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments		7,047,272		198,986	
Changes of Assumptions		-		-	
Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions		2,112,832		47,936	
Total Deferred Outflows of Resources	\$	9,160,104	\$	246,922	
Total Deferred Inflows of Resources:					
Differences Between Expected and Actual Experience	\$	-	\$	-	
Changes of Assumptions		-		-	
Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions		2,112,832		-	
Total Deferred Inflows of Resources	\$	2,112,832	\$	-	
Proportionate Share of Plan Pension Expense	\$	7,898,834	\$	223,030	
Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions		-		13,062	
Total Employer Pension Expense	\$	7,898,834	\$	236,092	
Covered Payroll klin Regional Retirement System incial Reporting and Disclosures as of December 31, 2015	\$	32,088,838	\$	785,015	

Pension Amounts as of December 31, 2015 for Town of Shutesbury

Franklin Regional Retirement South Deerfield Fire District **Pension Amounts** System **Proportionate Share** 100.0000% 0.183089% **Beginning Net Pension Liability** \$ 37,534,273 \$ 67,562 **Ending Net Pension Liability** \$ 46,589,813 \$ 85,301 Total Deferred Outflows of Resources: **Differences Between Expected and Actual Experience** \$ \$ -Net Difference Between Projected and Actual Investment 7,047,272 12,903 Earnings on Pension Plan Investments Changes of Assumptions _ Changes in Proportion and Differences Between 2.112.832 905 Employer Contributions and Proportionate Share of Contributions Total Deferred Outflows of Resources \$ 9,160,104 \$ 13,808 Total Deferred Inflows of Resources: Differences Between Expected and Actual Experience \$ \$ Changes of Assumptions Changes in Proportion and Differences Between 2,112,832 Employer Contributions and Proportionate Share of Contributions Total Deferred Inflows of Resources \$ 2,112,832 \$ Proportionate Share of Plan Pension Expense \$ 7,898,834 \$ 14,462 246 Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions **Total Employer Pension Expense** 7,898,834 \$ 14,708 \$ **Covered Payroll** \$ 32,088,838 \$ 51,084 Franklin Regional Retirement System Financial Reporting and Disclosures as of December 31, 2015

Pension Amounts as of December 31, 2015 for South Deerfield Fire District

Pension Amounts as of December 31, 2015 for South Deerfield Water Supply District

Pension Amounts		Franklin Regional Retirement System		South Deerfield Water Supply District	
Proportionate Share		100.0000%		0.481831%	
Beginning Net Pension Liability	\$	37,534,273	\$	150,137	
Ending Net Pension Liability	\$	46,589,813	\$	224,484	
Total Deferred Outflows of Resources:					
Differences Between Expected and Actual Experience	\$	-	\$	-	
Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments		7,047,272		33,956	
Changes of Assumptions		-		-	
Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions		2,112,832		23,980	
Total Deferred Outflows of Resources	\$	9,160,104	\$	57,936	
Total Deferred Inflows of Resources:					
Differences Between Expected and Actual Experience	\$	-	\$	-	
Changes of Assumptions		-		-	
Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions		2,112,832		-	
Total Deferred Inflows of Resources	\$	2,112,832	\$	-	
Proportionate Share of Plan Pension Expense	\$	7,898,834	\$	38,059	
Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions		-		6,534	
Total Employer Pension Expense	\$	7,898,834	\$	44,593	
Covered Payroll klin Regional Retirement System ncial Reporting and Disclosures as of December 31, 2015	\$	32,088,838	\$	141,293	

Pension Amounts		Franklin Regional Retirement System		Town of Sunderland	
Proportionate Share		100.0000%		3.835425%	
Beginning Net Pension Liability	\$	37,534,273	\$	1,403,782	
Ending Net Pension Liability	\$	46,589,813	\$	1,786,918	
Total Deferred Outflows of Resources:					
Differences Between Expected and Actual Experience	\$	-	\$	-	
Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments		7,047,272		270,293	
Changes of Assumptions		-		-	
Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions		2,112,832		27,964	
Total Deferred Outflows of Resources	\$	9,160,104	\$	298,257	
Total Deferred Inflows of Resources:					
Differences Between Expected and Actual Experience	\$	-	\$	-	
Changes of Assumptions		-		-	
Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions		2,112,832		-	
Total Deferred Inflows of Resources	\$	2,112,832	\$	-	
Proportionate Share of Plan Pension Expense	\$	7,898,834	\$	302,954	
Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions		-		7,619	
Total Employer Pension Expense	\$	7,898,834	\$	310,573	
Covered Payroll In Regional Retirement System Incial Reporting and Disclosures as of December 31, 2015	\$	32,088,838	\$	1,210,136	

Pension Amounts as of December 31, 2015 for Town of Sunderland

Franklin Regional Retirement Town of Warwick **Pension Amounts** System **Proportionate Share** 100.0000% 0.809481% **Beginning Net Pension Liability** \$ 37,534,273 \$ 296,521 **Ending Net Pension Liability** \$ 46,589,813 \$ 377,136 Total Deferred Outflows of Resources: **Differences Between Expected and Actual Experience** \$ \$ Net Difference Between Projected and Actual Investment 7,047,272 57,046 Earnings on Pension Plan Investments Changes of Assumptions _ Changes in Proportion and Differences Between 2.112.832 5,709 Employer Contributions and Proportionate Share of Contributions Total Deferred Outflows of Resources \$ 9,160,104 \$ 62,755 Total Deferred Inflows of Resources: Differences Between Expected and Actual Experience \$ \$ Changes of Assumptions Changes in Proportion and Differences Between 2,112,832 Employer Contributions and Proportionate Share of Contributions Total Deferred Inflows of Resources \$ 2,112,832 \$ Proportionate Share of Plan Pension Expense \$ 7,898,834 \$ 63,940 1,555 Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions **Total Employer Pension Expense** 7,898,834 \$ 65,495 \$ **Covered Payroll** \$ 32,088,838 \$ 198,379 Franklin Regional Retirement System Financial Reporting and Disclosures as of December 31, 2015

Pension Amounts as of December 31, 2015 for Town of Warwick

Franklin Regional Retirement Town of Wendell System **Pension Amounts Proportionate Share** 100.0000% 0.685113% **Beginning Net Pension Liability** \$ 37,534,273 \$ 232,712 **Ending Net Pension Liability** \$ 46,589,813 \$ 319,193 Total Deferred Outflows of Resources: **Differences Between Expected and Actual Experience** \$ \$ -Net Difference Between Projected and Actual Investment 7,047,272 48,282 Earnings on Pension Plan Investments Changes of Assumptions _ Changes in Proportion and Differences Between 2.112.832 19.081 Employer Contributions and Proportionate Share of Contributions Total Deferred Outflows of Resources \$ 9,160,104 \$ 67,363 Total Deferred Inflows of Resources: Differences Between Expected and Actual Experience \$ \$ Changes of Assumptions Changes in Proportion and Differences Between 2,112,832 Employer Contributions and Proportionate Share of Contributions Total Deferred Inflows of Resources \$ 2,112,832 \$ Proportionate Share of Plan Pension Expense \$ 7,898,834 \$ 54,116 5,199 Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions **Total Employer Pension Expense** 7,898,834 \$ 59,315 \$ **Covered Payroll** \$ 32,088,838 \$ 178,737 Franklin Regional Retirement System Financial Reporting and Disclosures as of December 31, 2015

Pension Amounts as of December 31, 2015 for Town of Wendell

Franklin Regional Retirement **Town of Whately** System **Pension Amounts Proportionate Share** 100.0000% 2.553750% **Beginning Net Pension Liability** \$ 37,534,273 \$ 994,658 **Ending Net Pension Liability** \$ 46,589,813 \$ 1,189,787 Total Deferred Outflows of Resources: **Differences Between Expected and Actual Experience** \$ \$ Net Difference Between Projected and Actual Investment 7,047,272 179,970 Earnings on Pension Plan Investments Changes of Assumptions 2.112.832 Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions Total Deferred Outflows of Resources \$ 9,160,104 \$ 179,970 Total Deferred Inflows of Resources: Differences Between Expected and Actual Experience \$ \$ Changes of Assumptions Changes in Proportion and Differences Between 2,112,832 28,206 Employer Contributions and Proportionate Share of Contributions Total Deferred Inflows of Resources \$ 28,206 2,112,832 \$ \$ Proportionate Share of Plan Pension Expense \$ 7,898,834 201,716 Net Amortization of Deferred Amounts from Changes in (7,685)Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions **Total Employer Pension Expense** 7,898,834 \$ 194,031 \$ **Covered Payroll** \$ 32,088,838 \$ 824,818 Franklin Regional Retirement System Financial Reporting and Disclosures as of December 31, 2015

Pension Amounts as of December 31, 2015 for Town of Whately

APPENDIX D - CALCULATION OF SINGLE DISCOUNT RATE

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

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

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

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

For purposes of this valuation, the long-term expected rate of return on pension plan investments is 7.75%; the municipal bond rate is 3.57%, based on the December 2015 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%.