

**FRANKLIN REGIONAL
RETIREMENT SYSTEM**

Annual Financial Statements

Required Supplementary Information,
and Other Information

For the Year Ended December 31, 2016

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INDEPENDENT AUDITORS' REPORT

Additional Offices:

Nashua, NH
Manchester, NH
Andover, MA
Ellsworth, ME

To the Retirement Board
Franklin Regional Retirement System

We have audited the accompanying financial statements of the Franklin Regional Retirement System as of and for the year ended December 31, 2016, and the related notes to the financial statements, which collectively comprise the basic financial statements as listed in the table of contents.

Management's Responsibility for the Financial Statements

Management is responsible for the preparation and fair presentation of these financial statements in accordance with accounting principles generally accepted in the United States of America; this includes the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of financial statements that are free from material misstatement, whether due to fraud or error.

Auditors' Responsibility

Our responsibility is to express an opinion on these financial statements based on our audit. We conducted our audit in accordance with auditing standards generally accepted in the United States of America. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditors' judgment, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the plan's preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the plan's internal control. Accordingly, we express no such opinion. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by

management, as well as evaluating the overall presentation of the financial statements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

Opinion

In our opinion, the financial statements referred to above present fairly, in all material respects, the fiduciary net position of the Franklin Regional Retirement System as of December 31, 2016, and the changes in fiduciary net position for the year then ended, in accordance with accounting principles generally accepted in the United States of America.

Report on Summarized Comparative Information

We have previously audited the System's fiscal year 2015 financial statements, and we expressed an unmodified audit opinion on those audited financial statements in our reported dated September 7, 2016. In our opinion, the summarized comparative information presented herein as of and for the year ended December 31, 2015 is consistent, in all material respects, with the audited financial statements from which is has been derived.

Other Matters

Required Supplementary Information

Accounting principles generally accepted in the United States of America require that the Management's Discussion and Analysis and the Schedules of Changes in the Net Pension Liability, of Net Pension Liability, of Contributions, and of the Investment Returns, listed in the foregoing table of contents, be presented to supplement the basic financial statements. Such information, although not a part of the basic financial statements, is required by the *Governmental Accounting Standards Board*, who considers it to be an essential part of financial reporting for placing the basic financial statements in an appropriate operational, economic, or historical context. We have applied certain limited procedures to the required supplementary information in accordance with auditing standards generally accepted in the United States of America, which consisted of inquiries of management about the methods of preparing the information and comparing the information for consistency with management's responses to our inquiries, the basic financial statements, and other knowledge we obtained during our audit of the basic financial statements. We do not express an opinion or provide any assurance on the information because the limited procedures do not provide us with evidence sufficient to express an opinion or provide any assurance.

Melanson Heath

July 19, 2017

MANAGEMENT'S DISCUSSION AND ANALYSIS

As management of the Franklin Regional Retirement System (the System), we offer readers this narrative overview and analysis of the financial activities of the System for the year ended December 31, 2016.

A. OVERVIEW OF THE FINANCIAL STATEMENTS

This discussion and analysis is intended to serve as an introduction to the basic financial statements. The basic financial statements comprise two components: (1) fund financial statements and (2) notes to financial statements. This report also contains other supplementary information in addition to the basic financial statements themselves.

Fund financial statements. A fund is a grouping of related accounts that is used to maintain control over resources that have been segregated for specific activities or objectives. Fund accounting is used to ensure and demonstrate compliance with finance-related legal requirements.

The Statement of Fiduciary Net Position Available for Benefits presents information on the System's assets and liabilities and the resulting net position held in trust for pension benefits. This statement reflects the System's investments at fair value, as well as cash, receivables and other assets and liabilities.

The Statement of Changes in Fiduciary Net Position Available for Benefits presents information showing how the System's net position available for benefits changed during the year ended December 31, 2016. It reflects contributions by members and participating employers along with deductions for retirement benefits, refunds and transfers, and administrative expenses. Investment income during the period is also presented showing income from investing.

The Notes to Financial Statements provide additional information that is essential for the reader to gain a full understanding of the data provided in the financial statements.

The Required Supplemental Information includes this management's discussion and analysis and Schedules of Changes in the Net Pension Liability, of Net Pension Liability, of Contributions, and of Investment Returns.

B. FINANCIAL HIGHLIGHTS

- The System's total net position available for benefits were \$127,050,447 at December 31, 2016.
- The System's net position changed by \$8,840,299 in comparison to the prior year.

- Employer and employee contributions to the plan were \$9,547,447 which represents a \$388,333 increase over the preceding year. The employer share of contributions represents 58.66% of the total contributions.
- Benefits paid to plan participants were \$9,829,335. At December 31, 2016, there were 581 retirees and beneficiaries receiving pension benefits.
- The System's funded ratio as of the January 1, 2016 actuarial report (rolled forward to December 31, 2016) was 70.75%.

C. FINANCIAL STATEMENT ANALYSIS

The following is a summary of condensed financial data for the current and prior fiscal years.

FIDUCIARY NET POSITION

	<u>2016</u>	<u>2015</u>
Cash and investments	\$ 128,338,914	\$ 119,293,035
Other assets	<u>333,708</u>	<u>294,071</u>
Total assets	128,672,622	119,587,106
Liabilities	<u>1,622,175</u>	<u>1,376,958</u>
Net position	<u>\$ 127,050,447</u>	<u>\$ 118,210,148</u>

CHANGES IN FIDUCIARY NET POSITION

	<u>2016</u>	<u>2015</u>
Additions:		
Contributions	\$ 10,017,191	\$ 9,651,650
Investment income, net	<u>10,088,170</u>	<u>615,820</u>
Total additions	20,105,361	10,267,470
Deductions:		
Benefits paid to participants	9,829,335	9,351,991
Refunds to members and transfers to other systems	889,954	910,799
Administrative expenses	<u>545,773</u>	<u>513,094</u>
Total expenses	<u>11,265,062</u>	<u>10,775,884</u>
Change in net position	8,840,299	(508,414)
Net position - beginning of year	<u>118,210,148</u>	<u>118,718,562</u>
Net position - end of year	<u>\$ 127,050,447</u>	<u>\$ 118,210,148</u>

The System's total assets as of December 31, 2016 were \$128,672,622 and were mostly comprised of cash and investments. Total assets changed by \$9,085,516 or 7.6% from the prior year primarily due to an increase in investments. Total liabilities as of December 31, 2016 were \$1,622,175 and were mostly comprised of 3 (8) (c) payables. Total liabilities increased by \$245,217 or 17.81% over the prior year.

The System was 70.75% funded based on its actuarial valuation of January 1, 2016 (rolled forward to December 31, 2016), with 19 years remaining in its amortization period.

The amount needed to finance benefits is accumulated through the collection of employers' and employees' contributions, reimbursements from the Commonwealth of Massachusetts for pre-1998 COLA and through earnings on investments. Contributions and net investment gain for calendar year 2016 resulted in an increase of \$20,105,361. Employers' contributions increased by \$230,475. The System had net investment gain of \$10,088,170 versus a gain of \$615,720 in 2015.

The primary deductions of the System include the payment of pension benefits to participants and beneficiaries, refunds of contributions, and the costs of administering the System. Total deductions for 2016 were \$11,265,062, which represents an increase of 4.54% over deductions of \$10,775,884 in 2015. The payment of pension benefits increased by \$477,344 or 5.1% over the previous year.

REQUESTS FOR INFORMATION

This financial report is designed to provide a general overview of the Franklin Regional Retirement System's finances for all those with an interest in the System's finances. Questions concerning any of the information provided in this report or requests for additional financial information should be addressed to:

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

FRANKLIN REGIONAL RETIREMENT SYSTEM
STATEMENTS OF FIDUCIARY NET POSITION
FOR THE YEARS ENDED DECEMBER 31, 2016 AND 2015

<u>ASSETS</u>	<u>2016</u>	<u>2015</u>
Cash	\$ 927,926	\$ 1,027,504
Investments, at fair value:		
Equities	35,573,376	30,477,850
Pooled domestic fixed income funds	15,900,782	12,801,913
Pooled equity funds	5,972,550	5,310,656
Pooled real estate funds	12,747,887	12,730,489
PRIT Fund	57,216,393	56,789,798
Receivables:		
Appropriation receivable	134,517	5,934
Member deductions and makeup payments	190,598	281,738
Other	1,900	154,825
Prepaid expenses	6,693	6,399
TOTAL ASSETS	128,672,622	119,587,106
<u>LIABILITIES AND NET POSITION</u>		
Accounts payable	1,622,175	1,376,958
TOTAL LIABILITIES	1,622,175	1,376,958
Net position restricted for pensions	127,050,447	118,210,148
TOTAL LIABILITIES AND NET PENSION	\$ 128,672,622	\$ 119,587,106

The accompanying notes are an integral part of these financial statements.

FRANKLIN REGIONAL RETIREMENT SYSTEM
STATEMENTS OF CHANGES IN FIDUCIARY NET POSITION
FOR THE YEARS ENDED DECEMBER 31, 2016 AND 2015

Additions	<u>2016</u>	<u>2015</u>
Contributions:		
Employers	\$ 5,875,820	\$ 5,645,345
Plan members	3,671,627	3,513,769
Other systems and Commonwealth of Massachusetts	460,054	472,213
Other	<u>9,690</u>	<u>20,323</u>
Total Contributions	10,017,191	9,651,650
Investment income:		
Appreciation in fair value of investments	10,744,196	1,259,135
Less: management fees	<u>(656,026)</u>	<u>(643,315)</u>
Net investment income	<u>10,088,170</u>	<u>615,820</u>
Total Additions	20,105,361	10,267,470
Deductions		
Benefit payments to plan members and beneficiaries	9,829,335	9,351,991
Refunds to plan members	316,759	368,098
Transfers to other systems	573,195	542,701
Administrative expenses	<u>545,773</u>	<u>513,094</u>
Total Deductions	<u>11,265,062</u>	<u>10,775,884</u>
Net increase (decrease)	8,840,299	(508,414)
Net position restricted for pensions:		
Beginning of Year	<u>118,210,148</u>	<u>118,718,562</u>
End of Year	<u>\$ 127,050,447</u>	<u>\$ 118,210,148</u>

The accompanying notes are an integral part of these financial statements.

Franklin Regional Retirement System

Notes to Financial Statements

1. Description of Plan

The System's plan is a defined benefit multiple employer cost sharing pension plan covering the employees of its 38 member units, except school department employees who serve in a teaching capacity. The pensions of such employees are administered by the Massachusetts Teachers' Retirement Board. Eligible employees must participate in the System. The pension plan provides pension benefits, deferred allowances, and death and disability benefits. Chapter 32 of the Massachusetts General Laws establishes the authority of the System, contribution percentages and benefits paid. The System Retirement Board does not have the authority to amend benefit provisions.

Membership of each plan consisted of the following at December 31, 2016:

Retirees and beneficiaries receiving benefits	581
Terminated plan members entitled to but not yet receiving benefits	557
Active plan members	<u>987</u>
Total	<u><u>2,125</u></u>
Number of participating employers	38

At December 31, 2016, the 38 participating employers consisted of:

Towns	24
School Districts	6
Special Districts	<u>8</u>
Total	<u><u>38</u></u>

Participants contribute a set percentage of their gross regular compensation annually. Employee contribution percentages are specified in Chapter 32 of the Massachusetts General Laws. The employee's individual contribution percentage is determined by their date of entry into the system. In addition, all employees hired after January 1, 1979 contribute an additional 2% on all gross regular compensation over the rate of \$30,000 per year. The percentages are as follows:

Before January 1, 1975	5%
January 1, 1975 - December 31, 1983	7%
January 1, 1984 - June 30, 1996	8%
Beginning July 1, 1996	9%

Employers are required to contribute at actuarially determined rates as accepted by the Public Employee Retirement Administration Commission (PERAC).

The System provides for retirement allowance benefits up to a maximum of 80% of a member's highest three-year average annual rate of regular compensation. Benefit payments are based upon a member's age, length of creditable service, level of compensation and group classification. Members become vested after 10 years of creditable service. A retirement allowance may be received upon reaching age 65 or upon attaining 20 years of service. The plan also provides for early retirement at age 55 if the participant became a member before April 2, 2012, or at age 60 if the participant became a member on or after April 2, 2012 (1) has a record of 10 years of creditable service, (2) commenced employment on or after January 1, 1978, (3) voluntarily left member employer's employment on or after that date, and (4) left accumulated annuity deductions in the fund. A retirement allowance consists of two parts: an annuity and a pension. A member's accumulated total deductions and a portion of the interest they generate constitute the annuity. The difference between the total retirement allowance and the annuity is the pension. The average retirement benefit is approximately 80-85% pension and 15-20% annuity.

Per Chapter 176 of the Acts of 2011, for members who retire on or after April 2, 2012, if in the 5 years of creditable service immediately preceding retirement, the difference in the annual rate of regular compensation between any 2 consecutive years exceeds 10 percent, the normal yearly amount of the retirement allowance shall be based on the average annual rate of regular compensation received by the member during the period of 5 consecutive years preceding retirement.

Employees who resign from service and who are not eligible to receive a retirement allowance or are under the age of 55 are entitled to request a refund of their accumulated total deductions. In addition, members that have accrued at least 10 years of service, or less than 10 years of service and are involuntarily withdrawn from service, receive one hundred percent of the regular interest which has accrued upon those deductions until 2 years after termination or withdrawal from service. However, members voluntarily withdrawing with less than 10 years of service get credited interest each year at a rate of 3% until 2 years after withdrawing.

2. Nature of Operations and Summary of Significant Accounting Policies

Nature of Operations

The System is organized under Chapter 34B of the Massachusetts General Laws (MGL) and is subject to the provisions of Chapter 32 of the Massachusetts General Laws. The System is governed by a five-member Board. The Board members are appointed or elected as specified by MGL Chapter 34B section 19(b) for terms ranging from 3 to 6 years. The System is also guided by an Advisory Council comprised of the official "Treasurers" of each member unit.

Summary of Significant Accounting Policies

The accounting policies of the System as reflected in the accompanying financial statements for the year ended December 31, 2016 conform to generally accepted accounting principles for public employee retirement systems (PERS). The more significant accounting policies of the System are summarized below:

Basis of Accounting

The System follows accounting policies mandated by the Commonwealth of Massachusetts. The accounting records are maintained on the accrual basis of accounting. Contributions from the member's employees are recognized as revenue in the period in which employees provide services to member employers.

Investments

Investment Policy

Investments are reported at fair value in accordance with PERAC requirements. System assets are managed on a total return basis with a long-term objective of achieving and maintaining a fully funded status for the benefits provided through the pension plan.

Rate of Return

For the year ended December 31, 2016, the annual money-weighted rate of return on pension plan investments, net of pension plan investment expenses, was 8.24%. The money-weighted rate of return expresses investment performance, net of investment expense, adjusted for the changing amounts actually invested.

Comparative Financial Information

The financial statements include certain prior-year summarized comparative information. Such information does not include sufficient detail to constitute a presentation in conformity with generally accepted accounting principles. Accordingly, such information should be read in conjunction with the System's financial statements for the year ended December 31, 2015.

3. Cash and Short-Term Investments

Custodial Credit Risk - Deposits. Custodial credit risk is the risk that in the event of a bank failure, the System's deposits may not be returned. Massachusetts General Law Chapter 32, Section 23, limits the System's deposits "in a bank or trust company to an amount not exceeding ten percent of the capital and surplus of such bank or trust company." The System does not have a deposit policy for custodial credit risk.

As of December 31, 2016, \$840,940 of the System's bank balance of \$1,101,515 was exposed to custodial credit risk as uninsured, uncollateralized, and/or collateral held by pledging bank's trust department not in the System's name.

4. Investments

A. Credit Risk

Generally, credit risk is the risk that an issuer of an investment will not fulfill its obligation to the holder of the investment. Massachusetts General Law, Chapter 32, Section 23, limits the investment of System funds (to the extent not required for current disbursements) in the PRIT Fund or in securities (other than mortgages or collateral loans), which are legal for the investment of funds in savings banks under the laws of the Commonwealth, provided that no more than the established percentage of assets is invested in any one security.

Due to their nature, none of the System's investments are subject to credit risk disclosure. Fair value of the PRIT Fund is the same as the value of the pool share. The Pension Reserves Investment Trust (PRIT) was created under Massachusetts General Law, Chapter 32, Section 22, in December 1983. The PRIT is operated under contract with a private investment advisor, approved by the Pension Reserves Investment Management Board.

B. Custodial Credit Risk

The custodial credit risk for investments is the risk that, in the event of the failure of the counterparty (e.g. broker-dealer) to a transaction, a government will not be able to recover the value of its investment or collateral securities that are in the possession of another party. The System's policy is to limit custodial credit risk by diversifying plan assets as described under Asset Allocation and Management Structure below.

C. Concentration of Credit Risk

Massachusetts General Law Chapter 32, Section 23 limits the amount the System may invest in any one issuer or security type, with the exception of the PRIT Fund. The System's policy with respect to asset allocation and management structure is as follows:

Asset Allocation

The Board of Trustees of the Retirement System originally adopted an asset allocation policy in 2002 and modified the policy in 2012 to the following. It should be noted that this is a target allocation policy and the Board of Trustees has the authority to override these targets if market conditions warrant such action.

	<u>Percentages of Allocation</u>			<u>Corresponding Index</u>
	<u>Target</u>	<u>Minimum</u>	<u>Maximum</u>	
Diversified investments	45%	35%	55%	Customized
Domestic stocks	27%	22%	32%	Customized
Domestic bonds	13%	10%	16%	Barclay's Aggregate Bond Index
International stocks	5%	0%	8%	MSCI ACWI-ex US
Real estate	10%	0%	13%	NCREIF Real Estate Index

Although cash is not included in the asset allocation of the Fund, the Trustees realize the need to provide liquidity to pay obligations as they come due. Surplus cash flows, additional contributions, and investment manager cash will be utilized to pay obligations of the Fund and periodic re-balancing of the assets. The Fund's investment manager(s) shall be kept informed of the liquidity requirements of the Fund, and to the extent possible, avoid untimely sales of assets which could be detrimental to the performance of the Plan.

Management Structure

To diversify plan assets so as to minimize the risk associated with dependence on the success of one enterprise, the Board of Trustees has decided to employ a multi-manager team approach to investing plan assets.

Investment managers will be employed to utilize individual expertise within their assigned area of responsibility. Each manager will be governed by individual investment guidelines. Separate manager guidelines for each investment manager shall serve as addenda to the Policy.

D. Interest Rate Risk

Interest rate risk is the risk that changes in market interest rates will adversely affect the fair value of an investment. Generally, the longer the maturity of an investment, the greater the sensitivity of its fair value to changes in market interest rates. The System does not have a formal investment policy that limits investment maturities as a means of managing its exposure to fair value losses arising from increasing interest rates; however, the System's investments consist of equities and pooled funds, neither of which has specified maturity dates. Consequently, none of the System's investments are subject to interest rate risk.

E. Foreign Currency Risk

Foreign currency risk is the risk that changes in foreign exchange rates will adversely affect the fair value of an investment. The System does not have policies for foreign currency risk.

F. Fair Value

The System categorizes its fair value measurements within the fair value hierarchy established by Governmental Accounting Standards Board Statement No. 72 *Fair Value Measurement and Application* (GASB 72). The hierarchy is based on the valuation inputs used to measure the fair value of the asset. Level 1 inputs are quoted prices in active markets for identical assets; Level 2 inputs are significant other observable inputs; Level 3 inputs are significant unobservable inputs.

The System has the following fair value measurements as of June 30, 2016:

<u>Description</u>	<u>Fair Value</u>	<u>Fair Value Measurements Using:</u>		
		<u>Quoted prices in active markets for identical assets (Level 1)</u>	<u>Significant observable inputs (Level 2)</u>	<u>Significant unobservable inputs (Level 3)</u>
Investments by fair value level:				
Equity securities:				
Common Stock	\$ 25,308,335	\$ 25,308,335	\$ -	\$ -
Foreign Stock	3,228,291	3,228,291	-	-
ADR	478,455	478,455		
Real Estate Investment Trusts	880,868	880,868		
Investments measured at the net asset value (NAV):				
External investment pools	<u>97,515,039</u>			
Total	<u>\$ 127,410,988</u>			

<u>Description</u>	<u>Value</u>	<u>Unfunded Commitments</u>	<u>Redemption Frequency (If currently eligible)</u>	<u>Redemption Notice Period</u>
PRIT- General Allocation	\$ 57,216,393	\$ -	Monthly	30 days
PRIT- International Equity	5,677,427	-	Monthly	30 days
PRIT- Core Real Estate	12,747,887	-	Monthly	30 days
DARUMA- Domestic Equities	5,972,550	-	Monthly	10 days - prior written notice
BNY Mellon- Domestic Fixed Income	<u>15,900,782</u>	-	Monthly	5 days
Total	<u>\$ 97,515,039</u>			

5. Receivables

Appropriation receivable

This balance represents legal amounts due for pension appropriation not received until after year end.

Member deductions and makeup payments

This balance represents member deductions and makeup payments for 2016 that were not received by the System until after year end.

Other receivable

This balance is comprised primarily of amounts due from the State for 3(8)(c) and COLA reimbursements billed in or due for 2016.

6. Prepaid Expenses

This balance represents calendar year 2015 rent, administrative, and employee insurance expense paid in calendar year 2016.

7. Accounts Payable

Accounts payable represents calendar year 2016 expenditures paid after December 31, 2016 of \$91,373. The remaining \$1,530,802 represents 3 (8)(C) Reimbursements owed to the Massachusetts State Retirement Board, which will be paid once a final determination of the amount owed is verified.

8. Commitments and Contingencies

Litigation – There are several pending legal issues in which the System is involved. The System’s management is of the opinion that the potential future settlement of some claims may result in a gain while others may result in an increase in future benefits paid. Management believes these events would not materially affect its financial statements taken as a whole; however, the outcome of these claims is undeterminable at the present time.

9. Risk Management

The System is exposed to various risks of loss related to torts; theft of, damage to and destruction of assets; errors and omissions; and natural disasters for which the System carries commercial insurance. There were no significant reductions in insurance coverage from the previous year and have been no material settlements in excess of coverage in any of the past three fiscal years.

10. Net Pension Liability of Participating Employers

The net pension liability was based on an actuarial valuation dated January 1, 2016 and rolled forward to December 31, 2016.

The components of the net pension liability of the participating employers at December 31, 2016 were as follows:

A. Net Pension Liability of Employers

Total pension liability	\$ 179,588,672
Plan fiduciary net position *	<u>127,050,446</u>
Employers' net pension liability	<u>\$ 52,538,226</u>
Plan fiduciary net position as a percentage of total pension liability	70.75%

* Reflects rounding differences from page 6.

B. Actuarial Assumptions

A summary of the actuarial assumptions as of the latest actuarial valuation of January 1, 2016 rolled forward to December 31, 2016 is shown below:

Valuation Date	1/1/2016
Actuarial cost method	Entry Age
Actuarial assumptions:	
Investment rate of return	7.75%
Inflation rate	2.20%
Projected salary increases	Group 1: 6%-4.25%, based on service Group 4: 7%-4.75%, based on service

Actuarial valuation of the ongoing Systems involves estimates of the reported amounts and assumptions about probability of occurrence of events far into the future. Examples include assumptions about future employment mortality and future salary increases. Amounts determined regarding the net pension liability are subject to continual revision as actual results are compared with past expectations and new estimates are made about the future.

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

Changes of benefit terms

Effective July 1, 2016, the COLA base was increased from \$16,000 to \$17,000. There also was an Early Retirement Incentive program implemented for one employee which provided 2 additional years of service.

Changes of assumptions

The mortality rates were updated to reflect fully generational mortality improvements and the expected future salary increases.

C. Target Allocations

The long-term expected rate of return on pension plan investments was determined using a building-block method in which best-estimates 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 System's targeted asset allocation as of December 31, 2016, are summarized in the following table.

<u>Asset Class</u>	<u>Target Asset Allocation</u>	<u>Long-Term Expected Real Rate of Return</u>
PRIT Core	45%	5.30%
Domestic Equity	27%	6.60%
International Equity	5%	3.70%
Real Estate	10%	7.00%
Fixed Income	13%	5.40%
Total	<u>100%</u>	

D. Discount Rate

The discount rate used to measure the total pension liability was 7.75%. The projection of cash flows used to determine the discount rate assumed that contributions from participating employers will be made based on the actuarially determined rates based on the Board's funding policy, which establishes the contractually required rates by statute. Based on those assumptions, the System's fiduciary net position was projected to be available to make all the projected future 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.

E. Sensitivity of Discount Rate

The following presents the net pension liability of the participating employers calculated using the discount rate of 7.75%, as well as what the participating employers' net pension liability would be if it were calculated

using a discount rate that is 1 percentage-point lower (6.75%) or 1 percentage-point higher (8.75%) than the current rate:

	1% Decrease <u>(6.75%)</u>	Current Discount Rate <u>(7.75%)</u>	1% Discount <u>(8.75%)</u>
Participating employers' net pension liability	\$ 73,195,363	\$ 52,538,226	\$ 35,061,481

F. Deferred Outflows/Inflows of Resources

The following schedule reflects the deferred outflows/inflows of resources for the System for the year ended December 31, 2016:

	<u>Deferred Outflows of Resources</u>	<u>Deferred Inflows of Resources</u>
Differences between expected and actual experience	\$ -	\$ (114,043)
Net difference between projected and actual earnings on pension plan investments	4,521,333	-
Changes of assumptions	4,472,962	-
Changes in proportion and differences between contributions and proportionate share of contributions	<u>2,072,475</u>	<u>(2,072,475)</u>
Total	<u>\$ 11,066,770</u>	<u>\$ (2,186,518)</u>

The following summarizes changes in deferred outflows/inflows:

<u>Deferred Outflows (Inflows) of Resources</u>	<u>Measurement Year</u>	<u>Amortization Period</u>	<u>Beginning Balance on Prior Measurement Period Deferrals</u>	<u>Current Measurement Period Additions</u>	<u>Amortization of Amounts Recognized in Current Period Pension Expense</u>	<u>End of Year Balance</u>
Differences between expected and actual experience	2016	4.54	\$ -	\$ (146,259)	\$ 32,216	\$ (114,043)
Net differences between projected and actual earnings on pension plan investments	2014	5	183,916	-	(61,305)	122,611
	2015	5	6,863,356	-	(1,715,839)	5,147,517
	2016	5		(935,994)	187,199	(748,795)
Changes of assumptions	2016	4.54	-	5,736,511	(1,263,549)	4,472,962
Changes in proportion and differences between contributions and proportionate share of contributions	2015	4.67	2,112,832	-	(575,703)	1,537,129
	2015	4.67	(2,112,832)	-	575,703	(1,537,129)
	2016	4.54	-	686,574	(151,228)	535,346
	2016	4.54	-	(686,574)	151,228	(535,346)
Total Collective Deferred Outflows (Inflows)			<u>\$ 7,047,272</u>	<u>\$ 4,654,258</u>	<u>\$ (2,821,278)</u>	<u>\$ 8,880,252</u>

The following schedule reflects the amortization of the balance of deferred outflows/inflows of resources:

Year ended June 30:	<u>Deferred Outflows of Resources</u>	<u>Deferred Inflows of Resources</u>
2018	\$ 3,580,425	(759,147)
2019	3,580,425	(759,147)
2020	3,329,139	(569,166)
2021	576,781	(99,058)
Total	<u>\$ 11,066,770</u>	<u>(2,186,518)</u>

FRANKLIN REGIONAL RETIREMENT SYSTEM
SCHEDULE OF CHANGES IN THE NET PENSION LIABILITY

(Unaudited)

	<u>2016</u>	<u>2015</u>	<u>2014</u>
Total Pension liability			
Service cost	\$ 5,089,632	\$ 4,703,273	\$ 4,703,273
Interest on unfunded liability - time value of \$	12,791,108	12,116,265	11,306,271
Changes of benefit terms	1,003,761	962,410	-
Differences between expected and actual experience	(146,259)	-	-
Changes of assumptions	5,736,511	-	-
Benefit payments, including refunds of member contributions	<u>(9,686,040)</u>	<u>(9,235,255)</u>	<u>(11,287,291)</u>
Net change in total pension liability	14,788,713	8,546,693	4,722,253
Total pension liability - beginning	<u>164,799,959</u>	<u>156,253,266</u>	<u>151,531,013</u>
Total pension liability - ending (a)	<u>\$ 179,588,672</u>	<u>\$ 164,799,959</u>	<u>\$ 156,253,266</u>
Plan fiduciary net position *			
Contributions - employer	\$ 5,875,820	\$ 5,645,345	\$ 5,418,158
Contributions - member	3,098,432	2,971,069	3,270,956
Net investment income	10,050,389	579,359	8,362,434
Benefit payments, including refunds of member contributions	(9,686,040)	(9,235,255)	(11,287,291)
Administrative expense	<u>(498,301)</u>	<u>(469,365)</u>	<u>(403,802)</u>
Net change in plan fiduciary net position	8,840,300	(508,847)	5,360,455
Plan fiduciary net position - beginning	<u>118,210,146</u>	<u>118,718,993</u>	<u>113,358,538</u>
Plan fiduciary net position - ending (b)	<u>\$ 127,050,446</u>	<u>\$ 118,210,146</u>	<u>\$ 118,718,993</u>
Net pension liability (asset) - ending (a-b)	<u>\$ 52,538,226</u>	<u>\$ 46,589,813</u>	<u>\$ 37,534,273</u>

* Reflects certain rounding and classification differences from page 7.

Schedule is intended to show information for 10 years. Additional years will be displayed as they become available.

FRANKLIN REGIONAL RETIREMENT SYSTEM

SCHEDULES OF NET PENSION LIABILITY, CONTRIBUTIONS, AND INVESTMENT RETURNS

(Unaudited)

Schedule of Net Pension Liability	<u>2016</u>	<u>2015</u>	<u>2014</u>
Total pension liability	\$ 179,588,672	\$ 164,799,959	\$ 156,253,266
Plan fiduciary net position	<u>(127,050,446)</u>	<u>(118,210,146)</u>	<u>(118,718,993)</u>
Net pension liability (asset)	<u>\$ 52,538,226</u>	<u>\$ 46,589,813</u>	<u>\$ 37,534,273</u>
Plan fiduciary net position as a percentage of the total pension liability	70.75%	71.73%	75.98%
Covered employee payroll	\$ 33,556,164	\$ 32,088,838	\$ 30,854,652
Participating employer net pension liability as a percentage of covered employee payroll	156.57%	145.19%	121.65%
Schedule of Contributions	<u>2016</u>	<u>2015</u>	<u>2014</u>
Actuarially determined contribution	\$ 5,875,820	\$ 5,645,345	\$ 5,888,495
Contributions in relation to the actuarially determined contribution	<u>5,875,820</u>	<u>5,645,345</u>	<u>5,888,495</u>
Contribution deficiency (excess)	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>
Covered employee payroll	\$ 33,556,164	\$ 32,088,838	\$ 30,854,652
Contributions as a percentage of covered employee payroll	17.51%	17.59%	19.08%
Schedule of Investment Returns	<u>2016</u>	<u>2015</u>	<u>2014</u>
<i>Year Ended December 31</i>			
Annual money weighted rate of return, net of investment expense	8.24%	0.57%	7.37%

Schedule is intended to show information for 10 years. Additional years will be displayed as they become available.

GASB REPORTS

Additional Offices:

Nashua, NH
Manchester, NH
Andover, MA
Ellsworth, ME

INDEPENDENT AUDITORS' REPORT

To the Retirement Board
Franklin Regional Retirement System

Report on Schedules

We have audited the accompanying schedule of employer allocations of Franklin Regional Retirement System as of and for the year ended December 31, 2016. We have also audited the total for all entities of the columns titled net pension liability, total deferred outflows of resources, total deferred inflows of resources, and total pension expense (specified column totals) included in the accompanying schedule of pension amounts by employer of Franklin Regional Retirement System as of and for the year ended December 31, 2016.

Management's Responsibility for the Schedules

Management is responsible for the preparation and fair presentation of these schedules in accordance with accounting principles generally accepted in the United States of America; this includes the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of the schedules that are free from material misstatement, whether due to fraud or error.

Auditors' Responsibility

Our responsibility is to express opinions on the schedule of employer allocations and the specified column totals included in the schedule of pension amounts by employer based on our audit. We conducted our audit in accordance with auditing standards generally accepted in the United States of America. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the schedule of employer allocations and specified column totals included in the schedule of pension amounts by employer are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the schedule of employer allocations and specified column totals included in the schedule of pension amounts by employer. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the schedule of employer allocations and specified column totals included in the schedule of pension amounts by employer, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the entity's preparation and fair presentation of the schedule of employer allocations and specified column totals included in the schedule of pension amounts by employer in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. Accordingly, we express no such opinion. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluating the overall presentation of the schedule of employer allocations and specified column totals included in the schedule of pension amounts by employer.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinions.

Opinions

In our opinion, the schedules referred to above present fairly, in all material respects, the employer allocations and net pension liability, total deferred outflows of resources, total deferred inflows of resources, and total pension expense for the total of all participating entities for Franklin Regional Retirement System as of and for the year ended December 31, 2016, in accordance with accounting principles generally accepted in the United States of America.

Restriction on Use

Our report is intended solely for the information and use of Franklin Regional Retirement System management, the Retirement Board, System employers and their auditors as of and for the year ended December 31, 2016 and is not intended to be and should not be used by anyone other than these specified parties.

Melanson Heath

July 19, 2017

FRANKLIN REGIONAL RETIREMENT SYSTEM
SCHEDULE OF EMPLOYER ALLOCATIONS

December 31, 2016

<u>Employer</u>	FY 2016 Pension Fund <u>Appropriation</u>	Employer Allocation <u>Percentage</u>
Town of Ashfield	\$ 76,280	1.29820%
Town of Bernardston	84,756	1.44245%
Bernardston Fire & Water District	2,825	0.04808%
Town of Buckland	111,084	1.89053%
Town of Charlemont	59,894	1.01933%
Town of Colrain	75,567	1.28607%
Town of Conway	155,386	2.64450%
Town of Deerfield	496,669	8.45276%
Town of Erving	285,529	4.85939%
Franklin County Regional Housing Authority	256,709	4.36891%
Franklin County Solid Waste Management District	24,412	0.41547%
Franklin Regional Transit Authority	55,831	0.95018%
Frontier Regional School District	353,718	6.01989%
Town of Gill	86,479	1.47178%
Hawlemont Regional School District	51,419	0.87509%
Town of Hawley	22,037	0.37505%
Town of Heath	49,159	0.83663%
Town of Leverett	185,032	3.14904%
Town of Leyden	23,167	0.39428%
Mahar Regional School District	279,129	4.75047%
Mohawk Regional School District	539,612	9.18360%
Town of Monroe	18,646	0.31733%
Town of New Salem	41,247	0.70198%
New Salem/Wendell Union School District	118,022	2.00860%
Town of Northfield	163,467	2.78203%
Town of Orange	895,582	15.24182%
Orange Housing Authority	9,040	0.15385%
Pioneer Valley Regional School District	417,342	7.10270%
Town of Rowe	125,895	2.14259%
Town of Shelburne	109,618	1.86558%
Shelburne Falls Fire District	37,292	0.63467%
Town of Shutesbury	164,426	2.79835%
South Deerfield Fire District	10,736	0.18271%
South Deerfield Water Supply District	28,817	0.49043%
Town of Sunderland	218,104	3.71189%
Town of Warwick	46,333	0.78854%
Town of Wendell	42,303	0.71995%
Town of Whately	154,256	2.62527%
Total	<u>\$ 5,875,820</u>	<u>100.00000%</u>

See actuarial assumptions in the Franklin Regional Retirement System audited financial statements.

FRANKLIN REGIONAL RETIREMENT SYSTEM
SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

As of and for the year ended December 31, 2016

	Franklin Regional Retirement System Total	Town of Ashfield	Town of Bernardston	Bernardston Fire & Water District	Town of Buckland	Town of Charlemont
Beginning Net Pension Liability, 12/31/15	\$ 46,589,813	\$ 615,096	\$ 668,979	\$ 26,937	\$ 866,889	\$ 475,913
Ending Net Pension Liability, 12/31/16	52,538,226	682,052	757,840	25,260	993,250	535,538
Total Deferred Outflows of Resources:						
Net Difference Between Projected and Actual Investment						
Earnings on Pension Plan Investments	4,521,333	58,696	65,218	2,174	85,477	46,087
Change of Assumptions	4,472,962	58,068	64,520	2,151	84,563	45,594
Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	<u>2,072,475</u>	<u>2,183</u>	<u>5,412</u>	<u>1,667</u>	<u>34,931</u>	<u>319</u>
Total Deferred Outflows of Resources	<u>\$ 11,066,770</u>	<u>\$ 118,947</u>	<u>\$ 135,150</u>	<u>\$ 5,992</u>	<u>\$ 204,971</u>	<u>\$ 92,000</u>
Total Deferred Inflows of Resources:						
Differences Between Expected and Actual Experience	\$ 114,043	\$ 1,481	\$ 1,645	\$ 55	\$ 2,156	\$ 1,162
Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	<u>2,072,475</u>	<u>6,794</u>	<u>-</u>	<u>3,003</u>	<u>-</u>	<u>668</u>
Total Deferred Inflows of Resources	<u>\$ 2,186,518</u>	<u>\$ 8,275</u>	<u>\$ 1,645</u>	<u>\$ 3,058</u>	<u>\$ 2,156</u>	<u>\$ 1,830</u>
Employer Pension Expense:						
Proportionate Share of Plan Pension Expense	\$ 9,991,253	\$ 129,707	\$ 144,119	\$ 4,804	\$ 188,887	\$ 101,844
Net Amortization of Deferred Amounts from Changes in Proportion and Difference Between Employer Contributions and Proportionate Share of Contributions	<u>-</u>	<u>(1,102)</u>	<u>1,841</u>	<u>(224)</u>	<u>12,237</u>	<u>(69)</u>
Total Employer Pension Expense	<u>\$ 9,991,253</u>	<u>\$ 128,605</u>	<u>\$ 145,960</u>	<u>\$ 4,580</u>	<u>\$ 201,124</u>	<u>\$ 101,775</u>
Covered Payroll:	33,556,164	425,293	527,875	8,556	675,560	385,739
Sensitivity of the Net Pension Liability to changes in the discount rate:						
Current discount rate: 7.75%	52,538,226	682,052	757,840	25,259	993,250	535,538
1% decrease in the discount rate: 6.75%	73,195,363	950,224	1,055,809	35,191	1,383,779	746,102
1% increase in the discount rate: 8.75%	35,061,481	455,169	505,746	16,857	662,847	357,392
Deferred Outflows of Resources and Deferred Inflows of Resources, to be recognized in Pension Expense:						
FY 2017	2,821,278	35,525	42,537	1,133	65,572	28,688
FY 2018	2,821,279	35,524	42,536	1,131	65,574	28,690
FY 2019	2,759,973	34,458	41,233	897	61,233	28,024
FY 2020	<u>477,722</u>	<u>5,165</u>	<u>7,199</u>	<u>(227)</u>	<u>10,436</u>	<u>4,768</u>
Total	<u>\$ 8,880,252</u>	<u>\$ 110,672</u>	<u>\$ 133,505</u>	<u>\$ 2,934</u>	<u>\$ 202,815</u>	<u>\$ 90,170</u>

(Continued)

FRANKLIN REGIONAL RETIREMENT SYSTEM
SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

As of and for the year ended December 31, 2016

(Continued)

	Town of <u>Colrain</u>	Town of <u>Conway</u>	Town of <u>Deerfield</u>	Town of <u>Erving</u>	Franklin County Regional Housing Authority	Franklin County Solid Waste Management District
Beginning Net Pension Liability, 12/31/15	\$ 598,863	\$ 1,194,277	\$ 3,820,783	\$ 1,908,143	\$ 2,167,850	\$ 193,983
Ending Net Pension Liability, 12/31/16	675,677	1,389,373	4,440,931	2,553,037	2,295,345	218,278
Total Deferred Outflows of Resources:						
Net Difference Between Projected and Actual Investment						
Earnings on Pension Plan Investments	58,147	119,567	382,177	219,709	197,533	18,785
Change of Assumptions	57,525	118,287	378,089	217,359	195,419	18,584
Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	<u>39,732</u>	<u>25,009</u>	<u>105,563</u>	<u>235,490</u>	<u>128,568</u>	<u>5,620</u>
Total Deferred Outflows of Resources	<u>\$ 155,404</u>	<u>\$ 262,863</u>	<u>\$ 865,829</u>	<u>\$ 672,558</u>	<u>\$ 521,520</u>	<u>\$ 42,989</u>
Total Deferred Inflows of Resources:						
Differences Between Expected and Actual Experience	\$ 1,467	\$ 3,016	\$ 9,640	\$ 5,542	\$ 4,982	\$ 474
Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	<u>-</u>	<u>1,410</u>	<u>-</u>	<u>5,197</u>	<u>87,610</u>	<u>278</u>
Total Deferred Inflows of Resources	<u>\$ 1,467</u>	<u>\$ 4,426</u>	<u>\$ 9,640</u>	<u>\$ 10,739</u>	<u>\$ 92,592</u>	<u>\$ 752</u>
Employer Pension Expense:						
Proportionate Share of Plan Pension Expense	\$ 128,494	\$ 264,219	\$ 844,537	\$ 485,514	\$ 436,508	\$ 41,510
Net Amortization of Deferred Amounts from Changes in Proportion and Difference Between Employer Contributions and Proportionate Share of Contributions	<u>14,863</u>	<u>6,537</u>	<u>32,389</u>	<u>64,576</u>	<u>23,403</u>	<u>2,027</u>
Total Employer Pension Expense	<u>\$ 143,357</u>	<u>\$ 270,756</u>	<u>\$ 876,926</u>	<u>\$ 550,090</u>	<u>\$ 459,911</u>	<u>\$ 43,537</u>
Covered Payroll:	439,835	877,177	3,046,806	1,371,637	1,246,505	139,094
Sensitivity of the Net Pension Liability to changes in the discount rate:						
Current discount rate: 7.75%	675,677	1,389,373	4,440,931	2,553,037	2,295,345	218,278
1% decrease in the discount rate: 6.75%	941,342	1,935,651	6,187,029	3,556,848	3,197,836	304,101
1% increase in the discount rate: 8.75%	450,914	927,201	2,963,663	1,703,774	1,531,803	145,668
Deferred Outflows of Resources and Deferred Inflows of Resources, to be recognized in Pension Expense:						
FY 2017	51,145	81,146	270,865	201,673	146,664	13,747
FY 2018	51,147	81,145	270,864	201,673	146,663	13,748
FY 2019	45,471	79,698	262,234	199,337	128,094	12,798
FY 2020	<u>6,174</u>	<u>16,448</u>	<u>52,226</u>	<u>59,136</u>	<u>7,507</u>	<u>1,944</u>
Total	<u>\$ 153,937</u>	<u>\$ 258,437</u>	<u>\$ 856,189</u>	<u>\$ 661,819</u>	<u>\$ 428,928</u>	<u>\$ 42,237</u>

(Continued)

FRANKLIN REGIONAL RETIREMENT SYSTEM
SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

As of and for the year ended December 31, 2016

(Continued)

	Franklin Regional Council of Government	Franklin Regional Transit Authority	Frontier Regional School District	Town of Gill	Hawlemont Regional School District	Town of Hawley
Beginning Net Pension Liability, 12/31/15	\$ -	\$ 397,900	\$ 2,767,456	\$ 663,870	\$ 426,529	\$ 166,120
Ending Net Pension Liability, 12/31/16	-	499,209	3,162,744	773,246	459,759	197,042
Total Deferred Outflows of Resources:						
Net Difference Between Projected and Actual Investment						
Earnings on Pension Plan Investments	-	42,961	272,179	66,544	39,566	16,957
Change of Assumptions	-	42,501	269,267	65,832	39,143	16,776
Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	29,640	41,684	58,135	5,436	5,700
Total Deferred Outflows of Resources	<u>\$ -</u>	<u>\$ 115,102</u>	<u>\$ 583,130</u>	<u>\$ 190,511</u>	<u>\$ 84,145</u>	<u>\$ 39,433</u>
Total Deferred Inflows of Resources:						
Differences Between Expected and Actual Experience	-	1,084	6,865	1,678	998	428
Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	1,477,437	16,192	-	-	12,458	2,866
Total Deferred Inflows of Resources	<u>\$ 1,477,437</u>	<u>\$ 17,276</u>	<u>\$ 6,865</u>	<u>\$ 1,678</u>	<u>\$ 13,456</u>	<u>\$ 3,294</u>
Employer Pension Expense:						
Proportionate Share of Plan Pension Expense	-	94,935	601,463	147,049	87,433	37,472
Net Amortization of Deferred Amounts from Changes in Proportion and Difference Between Employer Contributions and Proportionate Share of Contributions	(553,347)	2,308	13,346	20,444	(1,483)	537
Total Employer Pension Expense	<u>\$ (553,347)</u>	<u>\$ 97,243</u>	<u>\$ 614,809</u>	<u>\$ 167,493</u>	<u>\$ 85,950</u>	<u>\$ 38,009</u>
Covered Payroll:	-	401,188	2,179,604	451,792	301,154	140,044
Sensitivity of the Net Pension Liability to changes in the discount rate:						
Current discount rate: 7.75%	-	499,209	3,162,744	773,246	459,759	197,042
1% decrease in the discount rate: 6.75%	-	695,489	4,406,282	1,077,273	640,529	274,516
1% increase in the discount rate: 8.75%	-	333,148	2,110,663	516,027	306,821	131,497
Deferred Outflows of Resources and Deferred Inflows of Resources, to be recognized in Pension Expense:						
FY 2017	(553,347)	29,116	183,184	61,967	23,206	11,117
FY 2018	(553,347)	29,115	183,184	61,967	23,206	11,118
FY 2019	(370,743)	30,535	177,384	55,664	21,996	11,243
FY 2020	-	9,060	32,513	9,235	2,281	2,661
Total	<u>\$ (1,477,437)</u>	<u>\$ 97,826</u>	<u>\$ 576,265</u>	<u>\$ 188,833</u>	<u>\$ 70,689</u>	<u>\$ 36,139</u>

(Continued)

FRANKLIN REGIONAL RETIREMENT SYSTEM
SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

As of and for the year ended December 31, 2016

(Continued)

	Town of <u>Heath</u>	Town of <u>Leverett</u>	Town of <u>Leyden</u>	Mahar Regional School District	Mohawk Regional School District	Town of <u>Monroe</u>
Beginning Net Pension Liability, 12/31/15	\$ 368,165	\$ 1,496,758	\$ 175,099	\$ 2,159,564	\$ 4,426,892	\$ 148,162
Ending Net Pension Liability, 12/31/16	439,552	1,654,450	207,146	2,495,812	4,824,902	166,722
Total Deferred Outflows of Resources:						
Net Difference Between Projected and Actual Investment						
Earnings on Pension Plan Investments	37,827	142,379	17,827	214,785	415,221	14,348
Change of Assumptions	37,422	140,855	17,636	212,487	410,779	14,194
Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	<u>14,309</u>	<u>81,575</u>	<u>5,687</u>	<u>100,601</u>	<u>100,595</u>	<u>3,840</u>
Total Deferred Outflows of Resources	<u>\$ 89,558</u>	<u>\$ 364,809</u>	<u>\$ 41,150</u>	<u>\$ 527,873</u>	<u>\$ 926,595</u>	<u>\$ 32,382</u>
Total Deferred Inflows of Resources:						
Differences Between Expected and Actual Experience	\$ 954	\$ 3,591	\$ 450	\$ 5,418	\$ 10,473	\$ 362
Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	<u>4,215</u>	<u>19,606</u>	<u>3,020</u>	<u>-</u>	<u>98,123</u>	<u>209</u>
Total Deferred Inflows of Resources	<u>\$ 5,169</u>	<u>\$ 23,197</u>	<u>\$ 3,470</u>	<u>\$ 5,418</u>	<u>\$ 108,596</u>	<u>\$ 571</u>
Employer Pension Expense:						
Proportionate Share of Plan Pension Expense	\$ 83,590	\$ 314,629	\$ 39,393	\$ 474,631	\$ 917,557	\$ 31,706
Net Amortization of Deferred Amounts from Changes in Proportion and Difference Between Employer Contributions and Proportionate Share of Contributions	<u>2,463</u>	<u>25,014</u>	<u>475</u>	<u>34,409</u>	<u>9,957</u>	<u>1,380</u>
Total Employer Pension Expense	<u>\$ 86,053</u>	<u>\$ 339,643</u>	<u>\$ 39,868</u>	<u>\$ 509,040</u>	<u>\$ 927,514</u>	<u>\$ 33,086</u>
Covered Payroll:	325,194	1,005,061	181,625	1,887,828	3,315,043	113,567
Sensitivity of the Net Pension Liability to changes in the discount rate:						
Current discount rate: 7.75%	439,552	1,654,450	207,146	2,495,812	4,824,902	166,722
1% decrease in the discount rate: 6.75%	612,376	2,304,952	288,592	3,477,123	6,721,972	232,274
1% increase in the discount rate: 8.75%	293,336	1,104,101	138,239	1,665,585	3,219,907	111,262
Deferred Outflows of Resources and Deferred Inflows of Resources, to be recognized in Pension Expense:						
FY 2017	26,068	113,857	11,599	168,432	269,053	10,332
FY 2018	26,067	113,857	11,600	168,434	269,052	10,332
FY 2019	26,075	101,845	11,730	157,477	250,990	9,663
FY 2020	<u>6,179</u>	<u>12,053</u>	<u>2,751</u>	<u>28,112</u>	<u>28,904</u>	<u>1,484</u>
Total	<u>\$ 84,389</u>	<u>\$ 341,612</u>	<u>\$ 37,680</u>	<u>\$ 522,455</u>	<u>\$ 817,999</u>	<u>\$ 31,811</u>

(Continued)

FRANKLIN REGIONAL RETIREMENT SYSTEM
SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

As of and for the year ended December 31, 2016

(Continued)

	<u>Town of New Salem</u>	<u>New Salem/ Wendell Union School District</u>	<u>Town of Northfield</u>	<u>Town of Orange</u>	<u>Orange Housing Authority</u>	<u>Pioneer Valley Regional School District</u>
Beginning Net Pension Liability, 12/31/15	\$ 318,772	\$ 945,035	\$ 1,295,695	\$ 7,474,423	\$ 67,351	\$ 3,294,024
Ending Net Pension Liability, 12/31/16	368,807	1,055,285	1,461,629	8,007,780	80,831	3,731,634
Total Deferred Outflows of Resources:						
Net Difference Between Projected and Actual Investment						
Earnings on Pension Plan Investments	31,739	90,816	125,785	689,133	6,956	321,137
Change of Assumptions	31,399	89,844	124,439	681,763	6,882	317,701
Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	<u>8,509</u>	<u>27,378</u>	<u>45,295</u>	<u>655,155</u>	<u>2,865</u>	<u>101,732</u>
Total Deferred Outflows of Resources	<u>\$ 71,647</u>	<u>\$ 208,038</u>	<u>\$ 295,519</u>	<u>\$ 2,026,051</u>	<u>\$ 16,703</u>	<u>\$ 740,570</u>
Total Deferred Inflows of Resources:						
Differences Between Expected and Actual Experience	\$ 801	\$ 2,291	\$ 3,173	\$ 17,382	\$ 175	\$ 8,100
Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	<u>-</u>	<u>6,108</u>	<u>-</u>	<u>247,042</u>	<u>1,159</u>	<u>-</u>
Total Deferred Inflows of Resources	<u>\$ 801</u>	<u>\$ 8,399</u>	<u>\$ 3,173</u>	<u>\$ 264,424</u>	<u>\$ 1,334</u>	<u>\$ 8,100</u>
Employer Pension Expense:						
Proportionate Share of Plan Pension Expense	\$ 70,136	\$ 200,685	\$ 277,960	\$ 1,522,847	\$ 15,372	\$ 709,649
Net Amortization of Deferred Amounts from Changes in Proportion and Difference Between Employer Contributions and Proportionate Share of Contributions	<u>2,682</u>	<u>8,527</u>	<u>16,937</u>	<u>175,592</u>	<u>374</u>	<u>37,181</u>
Total Employer Pension Expense	<u>\$ 72,818</u>	<u>\$ 209,212</u>	<u>\$ 294,897</u>	<u>\$ 1,698,439</u>	<u>\$ 15,746</u>	<u>\$ 746,830</u>
Covered Payroll:	447,919	692,126	919,977	3,873,126	45,814	2,277,641
Sensitivity of the Net Pension Liability to changes in the discount rate:						
Current discount rate: 7.75%	368,807	1,055,285	1,461,629	8,007,783	80,831	3,731,634
1% decrease in the discount rate: 6.75%	513,816	1,470,206	2,036,316	11,156,307	112,612	5,198,849
1% increase in the discount rate: 8.75%	246,124	704,247	975,420	5,344,008	53,942	2,490,313
Deferred Outflows of Resources and Deferred Inflows of Resources, to be recognized in Pension Expense:						
FY 2017	22,488	65,197	95,426	605,605	4,717	237,568
FY 2018	22,487	65,196	95,426	605,605	4,716	237,568
FY 2019	21,682	60,582	88,159	515,287	4,764	221,877
FY 2020	4,189	8,664	13,335	35,130	1,172	35,457
Total	<u>\$ 70,846</u>	<u>\$ 199,639</u>	<u>\$ 292,346</u>	<u>\$ 1,761,627</u>	<u>\$ 15,369</u>	<u>\$ 732,470</u>

(Continued)

FRANKLIN REGIONAL RETIREMENT SYSTEM
SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

As of and for the year ended December 31, 2016

(Continued)

	Town of <u>Rowe</u>	Town of <u>Shelburne</u>	Shelburne Falls <u>District</u>	Town of <u>Shutesbury</u>	South Deerfield Fire <u>District</u>	South Deerfield Water Supply <u>District</u>
Beginning Net Pension Liability, 12/31/15	\$ 999,115	\$ 866,526	\$ 296,324	\$ 1,315,502	\$ 85,301	\$ 224,484
Ending Net Pension Liability, 12/31/16	1,125,681	980,142	333,444	1,470,203	95,995	257,665
Total Deferred Outflows of Resources:						
Net Difference Between Projected and Actual Investment						
Earnings on Pension Plan Investments	96,874	84,349	28,695	126,523	8,261	22,174
Change of Assumptions	95,837	83,447	28,388	125,169	8,173	21,937
Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	<u>43,596</u>	<u>29,444</u>	<u>-</u>	<u>34,875</u>	<u>659</u>	<u>20,099</u>
Total Deferred Outflows of Resources	<u>\$ 236,307</u>	<u>\$ 197,240</u>	<u>\$ 57,083</u>	<u>\$ 286,567</u>	<u>\$ 17,093</u>	<u>\$ 64,210</u>
Total Deferred Inflows of Resources:						
Differences Between Expected and Actual Experience	\$ 2,443	\$ 2,128	\$ 724	\$ 3,191	\$ 208	\$ 559
Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	<u>586</u>	<u>-</u>	<u>5,530</u>	<u>7,781</u>	<u>115</u>	<u>-</u>
Total Deferred Inflows of Resources	<u>\$ 3,029</u>	<u>\$ 2,128</u>	<u>\$ 6,254</u>	<u>\$ 10,972</u>	<u>\$ 323</u>	<u>\$ 559</u>
Employer Pension Expense:						
Proportionate Share of Plan Pension Expense	\$ 214,072	\$ 186,395	\$ 63,411	\$ 279,590	\$ 18,256	\$ 49,000
Net Amortization of Deferred Amounts from Changes in Proportion and Difference Between Employer Contributions and Proportionate Share of Contributions	<u>16,164</u>	<u>10,866</u>	<u>(2,032)</u>	<u>10,864</u>	<u>213</u>	<u>7,283</u>
Total Employer Pension Expense	<u>\$ 230,236</u>	<u>\$ 197,261</u>	<u>\$ 61,379</u>	<u>\$ 290,454</u>	<u>\$ 18,469</u>	<u>\$ 56,283</u>
Covered Payroll:	635,952	623,092	210,877	970,866	66,543	125,876
Sensitivity of the Net Pension Liability to changes in the discount rate:						
Current discount rate: 7.75%	1,125,681	980,142	333,444	1,470,203	95,995	257,665
1% decrease in the discount rate: 6.75%	1,568,280	1,365,517	464,548	2,048,262	133,739	358,975
1% increase in the discount rate: 8.75%	751,225	654,099	222,524	981,143	64,063	171,953
Deferred Outflows of Resources and Deferred Inflows of Resources, to be recognized in Pension Expense:						
FY 2017	76,611	63,500	15,873	89,813	5,370	21,120
FY 2018	76,612	63,499	15,873	89,813	5,369	21,120
FY 2019	69,909	58,933	16,117	83,787	5,176	18,663
FY 2020	<u>10,146</u>	<u>9,180</u>	<u>2,966</u>	<u>12,182</u>	<u>855</u>	<u>2,748</u>
Total	<u>\$ 233,278</u>	<u>\$ 195,112</u>	<u>\$ 50,829</u>	<u>\$ 275,595</u>	<u>\$ 16,770</u>	<u>\$ 63,651</u>

(Continued)

FRANKLIN REGIONAL RETIREMENT SYSTEM
SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

As of and for the year ended December 31, 2016

(Continued)

	<u>Town of Sunderland</u>	<u>Town of Warwick</u>	<u>Town of Wendell</u>	<u>Town of Whately</u>	<u>Franklin Regional Retirement System</u>
Beginning Net Pension Liability, 12/31/15	\$ 1,786,918	\$ 377,136	\$ 319,193	\$ 1,189,787	\$ -
Ending Net Pension Liability, 12/31/16	1,950,161	414,283	378,249	1,379,269	-
Total Deferred Outflows of Resources:					
Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	167,827	35,652	32,551	118,697	-
Change of Assumptions	166,031	35,271	32,203	117,427	-
Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	<u>20,344</u>	<u>4,153</u>	<u>24,624</u>	<u>22,051</u>	<u>-</u>
Total Deferred Outflows of Resources	<u>\$ 354,202</u>	<u>\$ 75,076</u>	<u>\$ 89,378</u>	<u>\$ 258,175</u>	<u>\$ -</u>
Total Deferred Inflows of Resources:					
Differences Between Expected and Actual Experience	\$ 4,233	\$ 899	\$ 821	\$ 2,994	\$ -
Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	<u>38,089</u>	<u>6,459</u>	<u>-</u>	<u>20,520</u>	<u>-</u>
Total Deferred Inflows of Resources	<u>\$ 42,322</u>	<u>\$ 7,358</u>	<u>\$ 821</u>	<u>\$ 23,514</u>	<u>\$ -</u>
Employer Pension Expense:					
Proportionate Share of Plan Pension Expense	\$ 370,864	\$ 78,785	\$ 71,932	\$ 262,297	\$ -
Net Amortization of Deferred Amounts from Changes in Proportion and Difference Between Employer Contributions and Proportionate Share of Contributions	<u>(3,140)</u>	<u>(268)</u>	<u>8,233</u>	<u>(1,457)</u>	<u>-</u>
Total Employer Pension Expense	<u>\$ 367,724</u>	<u>\$ 78,517</u>	<u>\$ 80,165</u>	<u>\$ 260,840</u>	<u>\$ -</u>
Covered Payroll:	1,401,653	279,838	202,967	993,582	342,138
Sensitivity of the Net Pension Liability to changes in the discount rate:					
Current discount rate: 7.75%	1,950,161	414,283	378,249	1,379,269	-
1% decrease in the discount rate: 6.75%	2,716,932	577,172	526,970	1,921,574	-
1% increase in the discount rate: 8.75%	1,301,444	276,473	252,425	920,458	-
Deferred Outflows of Resources and Deferred Inflows of Resources, to be recognized in Pension Expense:					
FY 2017	101,583	21,977	28,546	72,610	-
FY 2018	101,583	21,979	28,546	72,609	-
FY 2019	96,792	20,980	26,387	73,537	-
FY 2020	<u>11,922</u>	<u>2,782</u>	<u>5,078</u>	<u>15,905</u>	<u>-</u>
Total	<u>\$ 311,880</u>	<u>\$ 67,718</u>	<u>\$ 88,557</u>	<u>\$ 234,661</u>	<u>\$ -</u>

See actuarial assumptions in Franklin Regional Retirement System audited financial statements.