

**FRANKLIN REGIONAL  
RETIREMENT SYSTEM**

Annual Financial Statements

Required Supplementary Information,  
and Other Information

For the Year Ended December 31, 2017

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## INDEPENDENT AUDITORS' REPORT

To the Retirement Board  
Franklin Regional Retirement System

Additional Offices:  
Nashua, NH  
Manchester, NH  
Andover, MA  
Ellsworth, ME

We have audited the accompanying financial statements of the Franklin Regional Retirement System as of and for the year ended December 31, 2017, 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, 2017, 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 2016 financial statements, and we expressed an unmodified audit opinion on those audited financial statements in our reported dated July 19, 2017. In our opinion, the summarized comparative information presented herein as of and for the year ended December 31, 2016 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 Pension Schedules appearing on pages 20 to 21 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 25, 2018

## **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, 2017.

### **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, 2017. 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 was \$143,920,149 at December 31, 2017.
- The System's net position changed by \$16,869,702 in comparison to the prior year, almost all of which was the result of investment earnings.

- Employer and employee contributions to the plan were \$9,849,183 which represents a \$301,736 change over the preceding year. The employer share of contributions represents 59.67% of the total contributions.
- Benefits paid to plan participants were \$11,066,757. At December 31, 2017, there were 601 retirees and beneficiaries receiving pension benefits.
- The System's funded ratio as of the January 1, 2018 actuarial report was 75.89%.

### **C. FINANCIAL STATEMENT ANALYSIS**

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

#### **FIDUCIARY NET POSITION**

	<u>2017</u>	<u>2016</u>
Cash and investments	\$ 145,731,734	\$ 128,340,814
Other assets	<u>207,894</u>	<u>331,808</u>
Total assets	145,939,628	128,672,622
Liabilities	<u>2,019,479</u>	<u>1,622,175</u>
Net position	<u>\$ 143,920,149</u>	<u>\$ 127,050,447</u>

The System's total assets as of December 31, 2017 were \$145,939,628 and were mostly comprised of cash and investments. Total assets changed by \$17,267,006 or 13.4% from the prior year primarily due to an increase in investments. Total liabilities as of December 31, 2017 were \$2,019,479 and were mostly comprised of 3 (8)(c) payables. Total liabilities increased by \$397,304 or 24.49% over the prior year.

The System was 75.89% funded based on its actuarial valuation of January 1, 2018 with 18 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 2017 resulted in an increase of \$29,170,973. Employers' contributions increased by \$290,940. The System had net investment gain of \$18,837,040 versus a gain of \$10,088,170 in 2016.

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 2017 were \$12,301,271, which represents an increase of 9.2% over deductions of \$11,265,062 in 2016. The

payment of pension benefits increased by \$1,237,422 or 12.6% over the previous year.

**CHANGES IN FIDUCIARY NET POSITION**

	<u>2017</u>	<u>2016</u>
Additions:		
Contributions	\$ 10,333,933	\$ 10,017,191
Investment income, net	<u>18,837,040</u>	<u>10,088,170</u>
Total additions	29,170,973	20,105,361
Deductions:		
Benefits paid to participants	11,066,757	9,829,335
Refunds to members and transfers to other systems	686,652	889,954
Administrative expenses	<u>547,862</u>	<u>545,773</u>
Total expenses	<u>12,301,271</u>	<u>11,265,062</u>
Change in net position	16,869,702	8,840,299
Net position - beginning of year	<u>127,050,447</u>	<u>118,210,148</u>
Net position - end of year	<u>\$ 143,920,149</u>	<u>\$ 127,050,447</u>

**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, 2017 AND 2016

	<u>ASSETS</u>	<u>2017</u>	<u>2016</u>
Cash		\$ 1,208,507	\$ 927,926
Investments, at fair value:			
Equities		39,608,483	35,573,376
Pooled domestic fixed income funds		17,550,548	15,900,782
Pooled equity funds		7,647,245	5,972,550
Pooled real estate funds		14,338,949	12,747,887
PRIT Fund		65,378,002	57,216,393
Receivables:			
Appropriation receivable		6,510	134,517
Member deductions and makeup payments		171,971	190,598
Other		22,231	1,900
Prepaid expenses		<u>7,182</u>	<u>6,693</u>
<b>TOTAL ASSETS</b>		<b>145,939,628</b>	<b>128,672,622</b>
 <b><u>LIABILITIES AND NET POSITION</u></b> 			
Accounts payable		<u>2,019,479</u>	<u>1,622,175</u>
<b>TOTAL LIABILITIES</b>		<b>2,019,479</b>	<b>1,622,175</b>
Net position restricted for pensions		<u>143,920,149</u>	<u>127,050,447</u>
<b>TOTAL LIABILITIES AND NET PENSION</b>		<b>\$ <u>145,939,628</u></b>	<b>\$ <u>128,672,622</u></b>

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, 2017 AND 2016

<b>Additions</b>	<u>2017</u>	<u>2016</u>
Contributions:		
Employers	\$ 6,166,760	\$ 5,875,820
Plan members	3,682,423	3,671,627
Other systems and Commonwealth of Massachusetts	474,821	460,054
Other	<u>9,929</u>	<u>9,690</u>
Total Contributions	10,333,933	10,017,191
Investment income:		
Appreciation in fair value of investments	19,547,767	10,744,196
Less: management fees	<u>(710,727)</u>	<u>(656,026)</u>
Net investment income	<u>18,837,040</u>	<u>10,088,170</u>
Total Additions	29,170,973	20,105,361
<b>Deductions</b>		
Benefit payments to plan members and beneficiaries	11,066,757	9,829,335
Refunds to plan members	314,654	316,759
Transfers to other systems	371,998	573,195
Administrative expenses	<u>547,862</u>	<u>545,773</u>
Total Deductions	<u>12,301,271</u>	<u>11,265,062</u>
Net increase	16,869,702	8,840,299
Net position restricted for pensions:		
Beginning of Year	<u>127,050,447</u>	<u>118,210,148</u>
End of Year	<u>\$ 143,920,149</u>	<u>\$ 127,050,447</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, 2017:

Retirees and beneficiaries receiving benefits	601
Terminated plan members entitled to but not yet receiving benefits	614
Active plan members	<u>972</u>
Total	<u><u>2,187</u></u>
Number of participating employers	38

At December 31, 2017, 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, 2017 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, 2017, the annual money-weighted rate of return on pension plan investments, net of pension plan investment expenses, was 14.48%. 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, 2016.

### **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, 2017, \$665,770 of the System's bank balance of \$1,315,328 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, 2017:

<u>Description</u>	<u>Amount</u>	Fair Value Measurements Using:		
		Quoted prices in active markets for identical assets (Level 1)	Significant observable inputs (Level 2)	Significant unobservable inputs (Level 3)
Investments by fair value level:				
Equity securities:				
Common Stock	\$ 28,427,396	\$ 28,427,396	\$ -	\$ -
Foreign Stock	2,536,756	2,536,756	-	-
ADR	563,209	563,209		
Real Estate Investment Trusts	498,652	498,652		
Investments measured at the net asset value (NAV):				
External investment pools	<u>112,497,214</u>			
Total	<u>\$ 144,523,227</u>			

<u>Description</u>	<u>Amount</u>	<u>Unfunded Commitments</u>	<u>Redemption Frequency (If currently eligible)</u>	<u>Redemption Notice Period</u>
PRIT- General Allocation	\$ 65,378,002	\$ -	Monthly	30 days
PRIT- International Equity	7,582,469	-	Monthly	30 days
PRIT- Core Real Estate	14,338,949	-	Monthly	30 days
ABERDEEN- Domestic Equities	7,647,245	-	Monthly	30 days
BNY Mellon- Domestic Fixed Income	<u>17,550,548</u>	-	Monthly	5 days
Total	<u>\$ 112,497,213</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 2017 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 2017.



**6. Prepaid Expenses**

This balance represents warrants processed in 2017 for 2018 expenses.

**7. Accounts Payable**

Accounts payable represents calendar year 2017 expenditures paid after December 31, 2017 of \$84,502. The remaining \$1,934,977 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, 2018.

The components of the net pension liability of the participating employers at December 31, 2017 were as follows:

**A. Net Pension Liability of Employers**

Total pension liability	\$	189,640,566
Plan fiduciary net position *		<u>143,920,151</u>
Employers' net pension liability	\$	<u><u>45,720,415</u></u>
Plan fiduciary net position as a percentage of total pension liability		75.89%

\* Reflects rounding differences from page 6.

**B. Actuarial Assumptions**

A summary of the actuarial assumptions as of the latest actuarial valuation of January 1, 2018 is shown below:

Valuation Date	1/1/2018
Actuarial cost method	Entry Age
Actuarial assumptions:	
Investment rate of return	7.75%
Inflation rate	3.00%
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**

The Board approved a 2% cost-of-living adjustment on July 1, 2018, which resulted in a decrease in the accrued liability of \$293,030.

### Changes of assumptions

The administrative expense assumption was increased from \$450,000 to \$550,000, and the retirement and disability rates were updated which resulted in a net increase in the unfunded actuarial accrued liability of \$180,697 and a decrease in the employer normal cost of \$122,354.

### 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, 2017, 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% Increase <u>(8.75%)</u>
Participating employers' net pension liability	\$67,089,580	\$45,720,415	\$27,632,329

*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, 2017:

	Deferred Outflows of <u>Resources</u>	Deferred Inflows of <u>Resources</u>
Differences between expected and actual experience	\$ 1,524,743	\$ (81,827)
Net difference between projected and actual earnings on pension plan investments	-	(4,286,760)
Changes of assumptions	3,349,686	-
Changes in proportion and differences between contributions and proportionate share of contributions	<u>1,871,428</u>	<u>(1,871,428)</u>
Total	<u>\$ 6,745,857</u>	<u>\$ (6,240,015)</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	\$ (114,043)	\$ -	\$ 32,216	\$ (81,827)
	2017	4.47	-	1,964,150	(439,407)	1,524,743
Net differences between projected and actual earnings on pension plan investments	2014	5	122,611	-	(61,305)	61,306
	2015	5	5,147,517	-	(1,715,839)	3,431,678
	2016	5	(748,795)	-	187,199	(561,596)
	2017	5	-	(9,022,685)	1,804,537	(7,218,148)
Changes of assumptions	2016	4.54	4,472,962	-	(1,263,549)	3,209,413
	2017	4.47	-	180,697	(40,424)	140,273
Changes in proportion and differences between contributions and proportionate share of contributions	2015	4.67	1,537,129	-	(575,703)	961,426
	2015	4.67	(1,537,129)	-	575,703	(961,426)
	2016	4.54	535,346	-	(151,228)	384,118
	2016	4.54	(535,346)	-	151,228	(384,118)
	2017	4.47	-	677,438	(151,552)	525,886
	2017	4.47	-	(677,438)	151,552	(525,886)
Total Collective Deferred Outflows (Inflows)			<u>\$ 8,880,252</u>	<u>\$ (6,877,838)</u>	<u>\$ (1,496,572)</u>	<u>\$ 505,842</u>

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

Year ended June 30:

2019	\$ 1,496,573
2020	1,435,267
2021	(846,984)
2022	<u>(1,579,014)</u>
Total	<u>\$ 505,842</u>

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

(Unaudited)

	<u>2017</u>	<u>2016</u>	<u>2015</u>
<b>Total Pension liability</b>			
Service cost	\$ 5,207,589	\$ 5,089,632	\$ 4,703,273
Interest on unfunded liability - time value of \$	13,899,079	12,791,108	12,116,265
Changes of benefit terms	(293,031)	1,003,761	962,410
Differences between expected and actual experience	1,964,150	(146,259)	-
Changes of assumptions	180,697	5,736,511	-
Benefit payments, including refunds of member contributions	<u>(10,906,590)</u>	<u>(9,686,040)</u>	<u>(9,235,255)</u>
Net change in total pension liability	10,051,894	14,788,713	8,546,693
Total pension liability - beginning	<u>179,588,672</u>	<u>164,799,959</u>	<u>156,253,266</u>
<b>Total pension liability - ending (a)</b>	<u>\$ 189,640,566</u>	<u>\$ 179,588,672</u>	<u>\$ 164,799,959</u>
<b>Plan fiduciary net position *</b>			
Contributions - employer	\$ 6,166,761	\$ 5,875,820	\$ 5,645,345
Contributions - member	3,310,425	3,098,432	2,971,069
Net investment income	18,794,508	10,050,389	579,359
Benefit payments, including refunds of member contributions	(10,906,590)	(9,686,040)	(9,235,255)
Administrative expense	<u>(495,399)</u>	<u>(498,301)</u>	<u>(469,365)</u>
Net change in plan fiduciary net position	16,869,705	8,840,300	(508,847)
Plan fiduciary net position - beginning	<u>127,050,446</u>	<u>118,210,146</u>	<u>118,718,993</u>
<b>Plan fiduciary net position - ending (b)</b>	<u>\$ 143,920,151</u>	<u>\$ 127,050,446</u>	<u>\$ 118,210,146</u>
<b>Net pension liability (asset) - ending (a-b)</b>	<u>\$ 45,720,415</u>	<u>\$ 52,538,226</u>	<u>\$ 46,589,813</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)

<b>Schedule of Net Pension Liability</b>	<u>2017</u>	<u>2016</u>	<u>2015</u>
Total pension liability	\$ 189,640,566	\$ 179,588,672	\$ 164,799,959
Plan fiduciary net position	<u>(143,920,151)</u>	<u>(127,050,446)</u>	<u>(118,210,146)</u>
Net pension liability (asset)	<u>\$ 45,720,415</u>	<u>\$ 52,538,226</u>	<u>\$ 46,589,813</u>
Plan fiduciary net position as a percentage of the total pension liability	75.89%	70.75%	71.73%
Covered employee payroll	\$ 29,460,407	\$ 33,556,164	\$ 32,088,838
Participating employer net pension liability as a percentage of covered employee payroll	155.19%	156.57%	145.19%
<b>Schedule of Contributions</b>	<u>2017</u>	<u>2016</u>	<u>2015</u>
Actuarially determined contribution	\$ 6,166,761	\$ 5,875,820	\$ 5,645,345
Contributions in relation to the actuarially determined contribution	<u>6,166,761</u>	<u>5,875,820</u>	<u>5,645,345</u>
Contribution deficiency (excess)	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>
Covered employee payroll	\$ 29,460,407	\$ 33,556,164	\$ 32,088,838
Contributions as a percentage of covered employee payroll	20.93%	17.51%	17.59%
<b>Schedule of Investment Returns</b>	<u>2017</u>	<u>2016</u>	<u>2015</u>
<i>Year Ended December 31</i>			
Annual money weighted rate of return, net of investment expense	14.48%	8.24%	0.57%

*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 the Franklin Regional Retirement System as of and for the year ended December 31, 2017. 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, 2017.

### **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 the Franklin Regional Retirement System as of and for the year ended December 31, 2017, 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, 2017 and is not intended to be and should not be used by anyone other than these specified parties.

*Melanson Heath*

July 25, 2018

FRANKLIN REGIONAL RETIREMENT SYSTEM  
SCHEDULE OF EMPLOYER ALLOCATIONS

December 31, 2017

<u>Employer</u>	FY 2017 Pension Fund <u>Appropriation</u>	Employer Allocation <u>Percentage</u>
Town of Ashfield	\$ 83,596	1.36%
Town of Bernardston	91,359	1.48%
Bernardston Fire & Water District	2,985	0.05%
Town of Buckland	120,569	1.96%
Town of Charlemont	64,489	1.05%
Town of Colrain	80,515	1.31%
Town of Conway	165,999	2.69%
Town of Deerfield	536,211	8.70%
Town of Erving	267,509	4.34%
Franklin County Regional Housing Authority	254,252	4.12%
Franklin County Solid Waste Management District	25,794	0.42%
Franklin Regional Transit Authority	65,084	1.06%
Frontier Regional School District	383,032	6.21%
Town of Gill	93,699	1.52%
Hawlemont Regional School District	52,547	0.85%
Town of Hawley	24,482	0.40%
Town of Heath	53,143	0.86%
Town of Leverett	193,589	3.14%
Town of Leyden	26,273	0.43%
Mahar Regional School District	302,141	4.90%
Mohawk Regional School District	559,499	9.07%
Town of Monroe	19,474	0.32%
Town of New Salem	45,381	0.74%
New Salem/Wendell Union School District	125,407	2.03%
Town of Northfield	175,262	2.84%
Town of Orange	902,626	14.64%
Orange Housing Authority	8,957	0.15%
Pioneer Valley Regional School District	446,993	7.25%
Town of Rowe	132,439	2.15%
Town of Shelburne	115,244	1.87%
Shelburne Falls Fire District	40,007	0.65%
Town of Shutesbury	173,164	2.81%
South Deerfield Fire District	11,942	0.19%
South Deerfield Water Supply District	28,661	0.46%
Town of Sunderland	230,487	3.74%
Town of Warwick	48,963	0.79%
Town of Wendell	47,197	0.77%
Town of Whately	167,790	2.72%
Total	<u>\$ 6,166,761</u>	<u>100.00%</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, 2017

	<b>Franklin Regional Retirement System Total</b>	<b>Town of Ashfield</b>	<b>Town of Bernardston</b>	<b>Bernardston Fire &amp; Water District</b>	<b>Town of Buckland</b>	<b>Town of Charlemont</b>
<b>Beginning Net Pension Liability, 12/31/16</b>	\$ 52,538,226	\$ 682,052	\$ 757,840	\$ 25,260	\$ 993,250	\$ 535,538
<b>Ending Net Pension Liability, 12/31/17</b>	\$ 45,720,415	\$ 619,781	\$ 677,336	\$ 22,131	\$ 893,900	\$ 478,122
<b>Total Deferred Outflows of Resources:</b>						
Differences Between Expected and Actual Experience	\$ 1,524,743	\$ 20,669	\$ 22,589	\$ 738	\$ 29,811	\$ 15,945
Change of Assumptions	3,349,686	45,408	49,625	1,621	65,491	35,029
Contributions and Proportionate Share of Contributions	<u>1,871,428</u>	<u>20,814</u>	<u>16,795</u>	<u>1,151</u>	<u>44,595</u>	<u>9,155</u>
Total Deferred Outflows of Resources	<u>\$ 6,745,857</u>	<u>\$ 86,891</u>	<u>\$ 89,009</u>	<u>\$ 3,510</u>	<u>\$ 139,897</u>	<u>\$ 60,129</u>
<b>Total Deferred Inflows of Resources:</b>						
Differences Between Expected and Actual Experience	\$ 81,827	\$ 1,109	\$ 1,212	\$ 40	\$ 1,600	\$ 856
Earnings on Pension Plan Investments	4,286,760	58,111	63,507	2,075	83,812	44,829
Contributions and Proportionate Share of Contributions	<u>1,871,428</u>	<u>4,875</u>	<u>-</u>	<u>2,155</u>	<u>-</u>	<u>479</u>
Total Deferred Inflows of Resources	<u>\$ 6,240,015</u>	<u>\$ 64,095</u>	<u>\$ 64,719</u>	<u>\$ 4,270</u>	<u>\$ 85,412</u>	<u>\$ 46,164</u>
<b>Employer Pension Expense:</b>						
Proportionate Share of Plan Pension Expense	\$ 7,723,360	\$ 104,697	\$ 114,420	\$ 3,738	\$ 151,003	\$ 80,767
Contributions and Proportionate Share of Contributions	<u>-</u>	<u>4,504</u>	<u>5,652</u>	<u>(191)</u>	<u>18,546</u>	<u>2,511</u>
Total Employer Pension Expense	<u>\$ 7,723,360</u>	<u>\$ 109,201</u>	<u>\$ 120,072</u>	<u>\$ 3,547</u>	<u>\$ 169,549</u>	<u>\$ 83,278</u>
<b>Covered Payroll:</b>	29,460,407	412,039	451,528	15,317	561,193	318,588
<b>Sensitivity of the Net Pension Liability to changes in the discount rate:</b>						
Current discount rate: 7.75%	45,720,415	619,781	677,336	22,131	893,900	478,122
1% decrease in the discount rate: 6.75%	67,089,580	909,460	993,915	32,474	1,311,697	701,590
1% increase in the discount rate: 8.75%	27,632,329	374,581	409,366	13,375	540,252	288,966
<b>Deferred Outflows of Resources and Deferred Inflows of Resources, to be recognized in Pension Expense:</b>						
FY 2019	\$ 1,496,573	\$ 24,790	\$ 27,821	\$ 530	\$ 47,808	\$ 18,163
FY 2020	1,435,267	23,689	26,497	297	43,428	17,480
FY 2021	(846,984)	(6,913)	(8,428)	(837)	(8,845)	(6,378)
FY 2022	<u>(1,579,014)</u>	<u>(18,770)</u>	<u>(21,600)</u>	<u>(750)</u>	<u>(27,906)</u>	<u>(15,300)</u>
Total	<u>\$ 505,842</u>	<u>\$ 22,796</u>	<u>\$ 24,290</u>	<u>\$ (760)</u>	<u>\$ 54,485</u>	<u>\$ 13,965</u>

(Continued)

FRANKLIN REGIONAL RETIREMENT SYSTEM  
SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

As of and for the year ended December 31, 2017

(Continued)

	<u>Town of Colrain</u>	<u>Town of Conway</u>	<u>Town of Deerfield</u>	<u>Town of Erving</u>	<u>Franklin County Regional Housing Authority</u>	<u>Franklin County Solid Waste Management District</u>
<b>Beginning Net Pension Liability, 12/31/16</b>	\$ 675,677	\$ 1,389,373	\$ 4,440,931	\$ 2,553,036	\$ 2,295,345	\$ 218,278
<b>Ending Net Pension Liability, 12/31/17</b>	\$ 596,939	\$ 1,230,718	\$ 3,975,473	\$ 1,983,314	\$ 1,885,026	\$ 191,240
<b>Total Deferred Outflows of Resources:</b>						
Differences Between Expected and Actual Experience	\$ 19,907	\$ 41,044	\$ 132,579	\$ 66,142	\$ 62,864	\$ 6,378
Change of Assumptions	43,734	90,168	291,261	145,307	138,106	14,011
Contributions and Proportionate Share of Contributions	31,500	33,986	155,332	168,968	80,415	4,469
Total Deferred Outflows of Resources	<u>\$ 95,141</u>	<u>\$ 165,198</u>	<u>\$ 579,172</u>	<u>\$ 380,417</u>	<u>\$ 281,385</u>	<u>\$ 24,858</u>
<b>Total Deferred Inflows of Resources:</b>						
Differences Between Expected and Actual Experience	\$ 1,068	\$ 2,203	\$ 7,115	\$ 3,550	\$ 3,374	\$ 342
Earnings on Pension Plan Investments	55,969	115,392	372,742	185,956	176,741	17,931
Contributions and Proportionate Share of Contributions	-	882	-	179,983	146,221	199
Total Deferred Inflows of Resources	<u>\$ 57,037</u>	<u>\$ 118,477</u>	<u>\$ 379,857</u>	<u>\$ 369,489</u>	<u>\$ 326,336</u>	<u>\$ 18,472</u>
<b>Employer Pension Expense:</b>						
Proportionate Share of Plan Pension Expense	\$ 100,838	\$ 207,900	\$ 671,560	\$ 335,033	\$ 318,430	\$ 32,305
Contributions and Proportionate Share of Contributions	16,772	11,160	56,066	13,644	(618)	2,301
Total Employer Pension Expense	<u>\$ 117,610</u>	<u>\$ 219,060</u>	<u>\$ 727,626</u>	<u>\$ 348,677</u>	<u>\$ 317,812</u>	<u>\$ 34,606</u>
<b>Covered Payroll:</b>	350,569	819,738	2,645,878	1,319,102	1,230,969	125,000
<b>Sensitivity of the Net Pension Liability to changes in the discount rate:</b>						
Current discount rate: 7.75%	596,939	1,230,718	3,975,473	1,983,314	1,885,026	191,240
1% decrease in the discount rate: 6.75%	875,941	1,805,940	5,833,560	2,910,291	2,766,065	280,624
1% increase in the discount rate: 8.75%	360,776	743,817	2,402,681	1,198,668	1,139,265	115,581
<b>Deferred Outflows of Resources and Deferred Inflows of Resources, to be recognized in Pension Expense:</b>						
FY 2019	\$ 36,313	\$ 51,444	\$ 186,194	\$ 78,565	\$ 61,084	\$ 8,562
FY 2020	30,626	49,969	177,416	76,548	42,666	7,609
FY 2021	(9,116)	(14,361)	(38,124)	(51,750)	(72,308)	(3,310)
FY 2022	(19,719)	(40,331)	(126,171)	(92,435)	(76,393)	(6,475)
Total	<u>\$ 38,104</u>	<u>\$ 46,721</u>	<u>\$ 199,315</u>	<u>\$ 10,928</u>	<u>\$ (44,951)</u>	<u>\$ 6,386</u>

(Continued)

FRANKLIN REGIONAL RETIREMENT SYSTEM  
SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

As of and for the year ended December 31, 2017

(Continued)

	<u>Franklin Regional Council of Government</u>	<u>Franklin Regional Transit Authority</u>	<u>Frontier Regional School District</u>	<u>Town of Gill</u>	<u>Hawlemont Regional School District</u>	<u>Town of Hawley</u>
<b>Beginning Net Pension Liability, 12/31/16</b>	\$ -	\$ 499,209	\$ 3,162,743	\$ 773,246	\$ 459,759	\$ 197,042
<b>Ending Net Pension Liability, 12/31/17</b>	\$ -	\$ 482,533	\$ 2,839,802	\$ 694,685	\$ 389,584	\$ 181,510
<b>Total Deferred Outflows of Resources:</b>						
Differences Between Expected and Actual Experience	\$ -	\$ 16,092	\$ 94,705	\$ 23,167	\$ 12,992	\$ 6,053
Change of Assumptions	-	35,353	208,057	50,896	28,543	13,298
Contributions and Proportionate Share of Contributions	-	56,926	93,187	53,838	3,400	11,531
Total Deferred Outflows of Resources	<u>\$ -</u>	<u>\$ 108,371</u>	<u>\$ 395,949</u>	<u>\$ 127,901</u>	<u>\$ 44,935</u>	<u>\$ 30,882</u>
<b>Total Deferred Inflows of Resources:</b>						
Differences Between Expected and Actual Experience	\$ -	\$ 864	\$ 5,082	\$ 1,243	\$ 697	\$ 325
Earnings on Pension Plan Investments	-	45,242	266,261	65,134	36,528	17,018
Contributions and Proportionate Share of Contributions	924,090	10,128	-	-	16,731	1,792
Total Deferred Inflows of Resources	<u>\$ 924,090</u>	<u>\$ 56,234</u>	<u>\$ 271,343</u>	<u>\$ 66,377</u>	<u>\$ 53,956</u>	<u>\$ 19,135</u>
<b>Employer Pension Expense:</b>						
Proportionate Share of Plan Pension Expense	\$ -	\$ 81,512	\$ 479,716	\$ 117,350	\$ 65,811	\$ 30,662
Contributions and Proportionate Share of Contributions	(553,347)	12,585	32,034	25,097	(3,729)	2,680
Total Employer Pension Expense	<u>\$ (553,347)</u>	<u>\$ 94,097</u>	<u>\$ 511,750</u>	<u>\$ 142,447</u>	<u>\$ 62,082</u>	<u>\$ 33,342</u>
<b>Covered Payroll:</b>	-	315,132	1,861,728	404,564	259,192	120,612
<b>Sensitivity of the Net Pension Liability to changes in the discount rate:</b>						
Current discount rate: 7.75%	-	482,533	2,839,802	694,685	389,584	181,510
1% decrease in the discount rate: 6.75%	-	708,063	4,167,091	1,019,372	571,671	266,345
1% increase in the discount rate: 8.75%	-	291,632	1,716,309	419,851	235,455	109,700
<b>Deferred Outflows of Resources and Deferred Inflows of Resources, to be recognized in Pension Expense:</b>						
FY 2019	\$ (553,347)	\$ 28,380	\$ 124,991	\$ 47,836	\$ 9,024	\$ 8,623
FY 2020	(370,743)	29,734	119,073	41,505	7,828	8,734
FY 2021	-	5,858	(30,165)	(6,012)	(11,363)	(350)
FY 2022	-	(11,835)	(89,293)	(21,805)	(14,510)	(5,260)
Total	<u>\$ (924,090)</u>	<u>\$ 52,137</u>	<u>\$ 124,606</u>	<u>\$ 61,524</u>	<u>\$ (9,021)</u>	<u>\$ 11,747</u>

(Continued)

FRANKLIN REGIONAL RETIREMENT SYSTEM  
SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

As of and for the year ended December 31, 2017

(Continued)

	<u>Town of Heath</u>	<u>Town of Leverett</u>	<u>Town of Leyden</u>	<u>Mahar Regional School District</u>	<u>Mohawk Regional School District</u>	<u>Town of Monroe</u>
<b>Beginning Net Pension Liability, 12/31/16</b>	\$ 439,552	\$ 1,654,450	\$ 207,146	\$ 2,495,812	\$ 4,824,902	\$ 166,722
<b>Ending Net Pension Liability, 12/31/17</b>	\$ 394,003	\$ 1,435,270	\$ 194,788	\$ 2,240,076	\$ 4,148,130	\$ 144,381
<b>Total Deferred Outflows of Resources:</b>						
Differences Between Expected and Actual Experience	\$ 13,140	\$ 47,865	\$ 6,496	\$ 74,705	\$ 138,337	\$ 4,815
Change of Assumptions	28,866	105,154	14,271	164,118	303,911	10,578
Contributions and Proportionate Share of Contributions	18,784	51,022	14,847	116,704	62,919	2,402
Total Deferred Outflows of Resources	<u>\$ 60,790</u>	<u>\$ 204,041</u>	<u>\$ 35,614</u>	<u>\$ 355,527</u>	<u>\$ 505,167</u>	<u>\$ 17,795</u>
<b>Total Deferred Inflows of Resources:</b>						
Differences Between Expected and Actual Experience	\$ 705	\$ 2,569	\$ 349	\$ 4,009	\$ 7,424	\$ 258
Earnings on Pension Plan Investments	36,942	134,571	18,263	210,030	388,930	13,537
Contributions and Proportionate Share of Contributions	2,637	17,391	1,889	-	107,951	673
Total Deferred Inflows of Resources	<u>\$ 40,284</u>	<u>\$ 154,531</u>	<u>\$ 20,501</u>	<u>\$ 214,039</u>	<u>\$ 504,305</u>	<u>\$ 14,468</u>
<b>Employer Pension Expense:</b>						
Proportionate Share of Plan Pension Expense	\$ 66,557	\$ 242,454	\$ 32,905	\$ 378,407	\$ 700,726	\$ 24,390
Contributions and Proportionate Share of Contributions	4,919	24,056	3,577	48,965	(862)	1,228
Total Employer Pension Expense	<u>\$ 71,476</u>	<u>\$ 266,510</u>	<u>\$ 36,482</u>	<u>\$ 427,372</u>	<u>\$ 699,864</u>	<u>\$ 25,618</u>
<b>Covered Payroll:</b>	262,963	888,659	128,739	1,490,440	2,761,450	93,465
<b>Sensitivity of the Net Pension Liability to changes in the discount rate:</b>						
Current discount rate: 7.75%	394,003	1,435,270	194,788	2,240,076	4,148,130	144,381
1% decrease in the discount rate: 6.75%	578,155	2,106,098	285,830	3,287,060	6,086,915	211,863
1% increase in the discount rate: 8.75%	238,126	867,443	117,725	1,353,848	2,507,031	87,260
<b>Deferred Outflows of Resources and Deferred Inflows of Resources, to be recognized in Pension Expense:</b>						
FY 2019	\$ 17,814	\$ 71,037	\$ 9,955	\$ 122,291	\$ 134,918	\$ 5,954
FY 2020	17,808	59,030	10,065	111,243	116,924	5,287
FY 2021	(2,662)	(30,538)	362	(21,524)	(102,634)	(2,858)
FY 2022	(12,454)	(50,019)	(5,269)	(70,522)	(148,346)	(5,056)
Total	<u>\$ 20,506</u>	<u>\$ 49,510</u>	<u>\$ 15,113</u>	<u>\$ 141,488</u>	<u>\$ 862</u>	<u>\$ 3,327</u>

(Continued)

FRANKLIN REGIONAL RETIREMENT SYSTEM  
SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

As of and for the year ended December 31, 2017

(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>
<b>Beginning Net Pension Liability, 12/31/16</b>	\$ 368,807	\$ 1,055,285	\$ 1,461,629	\$ 8,007,780	\$ 80,831	\$ 3,731,634
<b>Ending Net Pension Liability, 12/31/17</b>	\$ 336,455	\$ 929,768	\$ 1,299,394	\$ 6,692,078	\$ 66,407	\$ 3,314,006
<b>Total Deferred Outflows of Resources:</b>						
Differences Between Expected and Actual Experience	\$ 11,221	\$ 31,007	\$ 43,334	\$ 223,177	\$ 2,215	\$ 110,520
Change of Assumptions	24,650	68,119	95,200	490,292	4,865	242,799
Contributions and Proportionate Share of Contributions	17,320	25,593	48,697	409,779	2,055	113,935
Total Deferred Outflows of Resources	<u>\$ 53,191</u>	<u>\$ 124,719</u>	<u>\$ 187,231</u>	<u>\$ 1,123,248</u>	<u>\$ 9,135</u>	<u>\$ 467,254</u>
<b>Total Deferred Inflows of Resources:</b>						
Differences Between Expected and Actual Experience	\$ 602	\$ 1,664	\$ 2,326	\$ 11,978	\$ 119	\$ 5,931
Earnings on Pension Plan Investments	31,546	87,175	121,832	627,454	6,226	310,722
Contributions and Proportionate Share of Contributions	-	4,383	-	382,249	3,641	-
Total Deferred Inflows of Resources	<u>\$ 32,148</u>	<u>\$ 93,222</u>	<u>\$ 124,158</u>	<u>\$ 1,021,681</u>	<u>\$ 9,986</u>	<u>\$ 316,653</u>
<b>Employer Pension Expense:</b>						
Proportionate Share of Plan Pension Expense	\$ 56,836	\$ 157,062	\$ 219,501	\$ 1,130,466	\$ 11,218	\$ 559,821
Contributions and Proportionate Share of Contributions	5,996	10,970	22,798	116,512	(464)	51,413
Total Employer Pension Expense	<u>\$ 62,832</u>	<u>\$ 168,032</u>	<u>\$ 242,299</u>	<u>\$ 1,246,978</u>	<u>\$ 10,754</u>	<u>\$ 611,234</u>
<b>Covered Payroll:</b>	225,317	574,342	771,158	4,069,644	45,279	2,099,637
<b>Sensitivity of the Net Pension Liability to changes in the discount rate:</b>						
Current discount rate: 7.75%	336,455	929,768	1,299,394	6,692,078	66,407	3,314,006
1% decrease in the discount rate: 6.75%	493,710	1,364,331	1,906,715	9,819,871	97,445	4,862,932
1% increase in the discount rate: 8.75%	203,345	561,930	785,323	4,044,531	40,135	2,002,906
<b>Deferred Outflows of Resources and Deferred Inflows of Resources, to be recognized in Pension Expense:</b>						
FY 2019	\$ 17,007	\$ 41,402	\$ 65,332	\$ 335,567	\$ 1,708	\$ 159,891
FY 2020	16,183	36,774	58,028	245,623	1,763	144,109
FY 2021	(2,085)	(15,715)	(18,166)	(220,734)	(1,633)	(45,635)
FY 2022	(10,062)	(30,964)	(42,121)	(258,889)	(2,689)	(107,764)
Total	<u>\$ 21,043</u>	<u>\$ 31,497</u>	<u>\$ 63,073</u>	<u>\$ 101,567</u>	<u>\$ (851)</u>	<u>\$ 150,601</u>

(Continued)



FRANKLIN REGIONAL RETIREMENT SYSTEM  
SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

As of and for the year ended December 31, 2017

(Continued)

	<u>Town of Rowe</u>	<u>Town of Shelburne</u>	<u>Shelburne Falls Fire District</u>	<u>Town of Shutesbury</u>	<u>South Deerfield Fire District</u>	<u>South Deerfield Water Supply District</u>
<b>Beginning Net Pension Liability, 12/31/16</b>	\$ 1,125,682	\$ 980,142	\$ 333,444	\$ 1,470,204	\$ 95,995	\$ 257,665
<b>Ending Net Pension Liability, 12/31/17</b>	\$ 981,904	\$ 854,420	\$ 296,612	\$ 1,283,839	\$ 88,538	\$ 212,493
<b>Total Deferred Outflows of Resources:</b>						
Differences Between Expected and Actual Experience	\$ 32,746	\$ 28,494	\$ 9,892	\$ 42,815	\$ 2,953	\$ 7,086
Change of Assumptions	71,939	62,599	21,731	94,060	6,487	15,568
Contributions and Proportionate Share of Contributions	<u>28,974</u>	<u>19,666</u>	<u>4,773</u>	<u>25,091</u>	<u>4,119</u>	<u>12,815</u>
Total Deferred Outflows of Resources	<u>\$ 133,659</u>	<u>\$ 110,759</u>	<u>\$ 36,396</u>	<u>\$ 161,966</u>	<u>\$ 13,559</u>	<u>\$ 35,469</u>
<b>Total Deferred Inflows of Resources:</b>						
Differences Between Expected and Actual Experience	\$ 1,757	\$ 1,529	\$ 531	\$ 2,298	\$ 158	\$ 380
Earnings on Pension Plan Investments	92,064	80,111	27,810	120,373	8,301	19,923
Contributions and Proportionate Share of Contributions	<u>420</u>	<u>-</u>	<u>3,497</u>	<u>5,583</u>	<u>83</u>	<u>8,698</u>
Total Deferred Inflows of Resources	<u>\$ 94,241</u>	<u>\$ 81,640</u>	<u>\$ 31,838</u>	<u>\$ 128,254</u>	<u>\$ 8,542</u>	<u>\$ 29,001</u>
<b>Employer Pension Expense:</b>						
Proportionate Share of Plan Pension Expense	\$ 165,869	\$ 144,334	\$ 50,105	\$ 216,874	\$ 14,956	\$ 35,896
Contributions and Proportionate Share of Contributions	<u>16,653</u>	<u>11,181</u>	<u>(658)</u>	<u>11,809</u>	<u>1,283</u>	<u>4,777</u>
Total Employer Pension Expense	<u>\$ 182,522</u>	<u>\$ 155,515</u>	<u>\$ 49,447</u>	<u>\$ 228,683</u>	<u>\$ 16,239</u>	<u>\$ 40,673</u>
<b>Covered Payroll:</b>	600,470	568,466	196,559	855,501	57,567	142,249
<b>Sensitivity of the Net Pension Liability to changes in the discount rate:</b>						
Current discount rate: 7.75%	981,904	854,420	296,612	1,283,839	88,538	212,493
1% decrease in the discount rate: 6.75%	1,440,834	1,253,765	435,245	1,883,890	129,920	311,809
1% increase in the discount rate: 8.75%	593,439	516,391	179,265	775,922	53,510	128,426
<b>Deferred Outflows of Resources and Deferred Inflows of Resources, to be recognized in Pension Expense:</b>						
FY 2019	\$ 48,796	\$ 39,148	\$ 9,052	\$ 53,832	\$ 4,180	\$ 11,733
FY 2020	42,089	34,580	9,286	47,801	3,981	9,291
FY 2021	(17,787)	(15,248)	(4,183)	(24,025)	(590)	(6,038)
FY 2022	<u>(33,680)</u>	<u>(29,361)</u>	<u>(9,597)</u>	<u>(43,896)</u>	<u>(2,554)</u>	<u>(8,518)</u>
Total	<u>\$ 39,418</u>	<u>\$ 29,119</u>	<u>\$ 4,558</u>	<u>\$ 33,712</u>	<u>\$ 5,017</u>	<u>\$ 6,468</u>

(Continued)

FRANKLIN REGIONAL RETIREMENT SYSTEM  
SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

As of and for the year ended December 31, 2017

(Continued)

	<u>Town of Sunderland</u>	<u>Town of Warwick</u>	<u>Town of Wendell</u>	<u>Town of Whately</u>
<b>Beginning Net Pension Liability, 12/31/16</b>	\$ 1,950,162	\$ 414,284	\$ 378,249	\$ 1,379,270
<b>Ending Net Pension Liability, 12/31/17</b>	\$ 1,708,832	\$ 363,012	\$ 349,919	\$ 1,243,996
<b>Total Deferred Outflows of Resources:</b>				
Differences Between Expected and Actual Experience	\$ 56,988	\$ 12,106	\$ 11,670	\$ 41,486
Change of Assumptions	125,197	26,596	25,637	91,141
Contributions and Proportionate Share of Contributions	<u>21,428</u>	<u>4,443</u>	<u>31,775</u>	<u>48,225</u>
Total Deferred Outflows of Resources	<u>\$ 203,613</u>	<u>\$ 43,145</u>	<u>\$ 69,082</u>	<u>\$ 180,852</u>
<b>Total Deferred Inflows of Resources:</b>				
Differences Between Expected and Actual Experience	\$ 3,058	\$ 650	\$ 626	\$ 2,226
Earnings on Pension Plan Investments	160,221	34,036	32,808	116,637
Contributions and Proportionate Share of Contributions	<u>27,330</u>	<u>4,634</u>	<u>-</u>	<u>12,834</u>
Total Deferred Inflows of Resources	<u>\$ 190,609</u>	<u>\$ 39,320</u>	<u>\$ 33,434</u>	<u>\$ 131,697</u>
<b>Employer Pension Expense:</b>				
Proportionate Share of Plan Pension Expense	\$ 288,666	\$ 61,322	\$ 59,110	\$ 210,143
Contributions and Proportionate Share of Contributions	<u>(632)</u>	<u>262</u>	<u>12,668</u>	<u>7,882</u>
Total Employer Pension Expense	<u>\$ 288,034</u>	<u>\$ 61,584</u>	<u>\$ 71,778</u>	<u>\$ 218,025</u>
<b>Covered Payroll:</b>	1,136,084	240,616	213,354	827,299
<b>Sensitivity of the Net Pension Liability to changes in the discount rate:</b>				
Current discount rate: 7.75%	1,708,832	363,012	349,919	1,243,996
1% decrease in the discount rate: 6.75%	2,507,520	532,679	513,467	1,825,427
1% increase in the discount rate: 8.75%	1,032,778	219,396	211,483	751,841
<b>Deferred Outflows of Resources and Deferred Inflows of Resources, to be recognized in Pension Expense:</b>				
FY 2019	\$ 55,303	\$ 12,147	\$ 24,122	\$ 48,603
FY 2020	50,497	11,144	21,935	49,470
FY 2021	(34,959)	(7,178)	(409)	(10,343)
FY 2022	<u>(57,837)</u>	<u>(12,288)</u>	<u>(10,000)</u>	<u>(38,575)</u>
Total	<u>\$ 13,004</u>	<u>\$ 3,825</u>	<u>\$ 35,648</u>	<u>\$ 49,155</u>