



FRANKLIN REGIONAL RETIREMENT SYSTEM

ACTUARIAL VALUATION as of

January 1, 2014

Prepared by:

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October 24, 2014

Franklin Regional Retirement Board
278 Main Street
Suite 311
Greenfield, MA 01301

Dear Board Members:

We are pleased to present the enclosed report summarizing the results of our actuarial valuation of the Franklin Regional Retirement System as of January 1, 2014.

Our valuation was performed in accordance with the provisions contained in Chapter 32 of the Massachusetts General Laws, "M.G.L.", as of January 1, 2014 and GASB Statement No. 25, Financial Reporting for Defined Benefit Pension Plans and Note Disclosures for Defined Contribution Plans (GASB 25) and GASB Statement No. 27, Accounting for Pensions by State and Local Governmental Employers (GASB 27).

The principal results of our valuation are summarized in Section 2. The summary of Plan provisions and actuarial methods and assumptions are shown in Sections 5 and 6, respectively. Section 7 summarizes the demographic profile of active members and retired plan members. Asset information and actuarial liabilities are presented in Section 2. The development of the required appropriations pursuant to Chapter 32 of the M.G.L. is shown in Section 3. The required disclosures under GASB 25, GASB 27 and PERAC are presented in Section 4.

We also provide a 30-year forecast of the required appropriations and cash flows in Section 3.

Our actuarial valuation is based on an investment return rate of 7.75%, compounded annually. Our calculations were based on participant census and asset data and other information provided by the Franklin Regional Retirement System and the benefit provisions of Chapter 32 of the M.G.L. as of January 1, 2014.

K M S A C T U A R I E S

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

We appreciate this opportunity to be of service to the Franklin Regional Retirement Board. We are available to answer any questions with respect to our valuation.

Respectfully submitted,

A handwritten signature in black ink that reads "Linda Bournival". The signature is written in a cursive style with a large, looped "L" and "B".

Linda L. Bournival, FSA

Member, American Academy of Actuaries

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ACTUARIAL CERTIFICATION

This report presents the results of the Actuarial Valuation for the Franklin Regional Retirement System as of January 1, 2014. The report presents the funding schedule contribution amounts for the fiscal years beginning 2015 and accounting and financial reporting information in accordance with Statement Numbers 25 and 27 of the Governmental Accounting Standards Board.

This valuation is based upon member data provided by the Retirement Board and asset information reported to the Public Employee Retirement Administration Commission (PERAC) by the Franklin Regional Retirement System. Although we did not audit the data used in the valuation, we believe that the information is complete and reliable.

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

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

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

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

Respectfully submitted,



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SECTION 1 - SUMMARY

Background

We have completed the Actuarial Valuation of the Franklin Regional Retirement System as of January 1, 2014. This valuation is based upon census data provided by the Retirement Board and asset information reported to the Public Employee Retirement Administration Commission (PERAC) by the Franklin Regional Retirement Board. Information for the prior valuation completed as of January 1, 2012 was obtained from the valuation report prepared by Stone Consulting, Inc.

Massachusetts General Laws

The valuation was prepared in accordance with Chapter 32 of the Massachusetts General Laws ("M.G.L."). The results are based on the active, inactive and retired members and beneficiaries as of January 1, 2014, the assets as of December 31, 2013 and assumptions regarding investment returns, salary increases, death, turnover, disability and retirement.

The valuation does not take into consideration:

- Changes in the law after the valuation date,
- State-mandated benefits and
- Cost-of-living increases granted to members in pay status between 1982 and 1997.

GASB Statement Numbers 25 and 27

The Governmental Accounting Standards Board (**GASB**) is responsible for establishing accounting standards for governmental entities. Calculations developed in accordance with GASB standards are required when providing financial statements.

GASB Statement Number 25 (**GASB 25**) establishes financial reporting standards for defined benefit pension plans of state and local governmental entities. The Statement establishes a framework that distinguishes between two categories of information: current financial information about plan assets and financial activities and actuarially determined information about the funded status of the plan and the progress being made in accumulating sufficient assets to pay benefits when due.

GASB Statement Number 27 (**GASB 27**) establishes standards for the measurement, recognition, and display of pension expense and related liabilities, assets, note disclosures, and, if applicable, required supplementary information in the financial reports of state and local governmental employers. Employers are required to measure and disclose an amount for annual pension cost on the accrual basis of accounting, regardless of the amount recognized as pension expense on the accrual basis. Annual pension cost should be equal to the employer's Annual Required Contribution (ARC) to the plan.

The required disclosures under the GASB Statements are presented in Section 4.

SECTION 1 - SUMMARY

GASB Statement Numbers 67 and 68

In June 2012, the GASB approved two related Statements that significantly change the way pension plans and governments will account and report pension liabilities. Effective for plans with fiscal years beginning after June 15, 2013, GASB Statement No. 67, Financial Reporting for Pension Plans, replaces the requirements of Statement No. 25 and effective for employers with fiscal years beginning after June 15, 2014, GASB Statement No. 68, Accounting and Financial Reporting for Pensions, replaces the requirements of Statement No. 27.

The new pension standards reflect changes from those currently in place regarding how governments calculate total pension liability and pension expense. Further, the new standards contain requirements for disclosing information in the notes to financial statements and presenting required supplementary information following the notes.

The required disclosures and notes under the new GASB Statements for the fiscal year ending December 31, 2014 will be provided in a separate report.

Actuarial Valuation

During the two years since the last valuation, the total unfunded actuarial accrued liability of the System was expected to decrease from \$49,674,937 as of January 1, 2012 to \$48,107,652 as of January 1, 2014, for a total decrease of \$1,567,285. The actual unfunded actuarial accrued liability, before any assumption or plan changes, was \$45,139,969, resulting in an actuarial gain of \$2,967,683. The actuarial gain was primarily due to an asset gain of \$5,686,480 and a demographic experience loss of \$2,718,797. The details of the gain and loss analysis are provided in Exhibit 2.6.

Appropriations

The funding appropriation for each year is computed as the sum of the normal cost and an amortization payment to pay off the Unfunded Actuarial Liability, adjusted for semi-annual payments of the appropriation made at the beginning of each fiscal year. The appropriation calculated as of the January 1, 2014 valuation is \$5,521,647, and is made up of a normal cost payment of \$1,923,317, an amortization payment of \$3,157,152 and net 3(8)(c) transfers of \$441,178. The amortization method used to compute the amortization payment at January 1 is an increasing amortization of the unfunded actuarial accrued liability at 4% over 21 years and is expected to fully pay the unfunded actuarial accrued liability by the year 2035. The development of the appropriation as of January 1, 2014 is presented in Exhibit 3.1.

SECTION 1 - SUMMARY

For fiscal year 2015, we show the actual appropriation developed under the previous funding schedule and reported on the PERAC "Required Fiscal Year 2015 Appropriation" letter dated November 13, 2013 of \$5,888,495. For fiscal year 2016, we developed an annual appropriation of \$5,727,313, which is made up of a normal cost of \$1,732,786, payment toward the unfunded actuarial accrued liability of \$3,528,027 (including ERIs) and net 3(8)(c) transfers of \$466,500. The unfunded actuarial accrued liability is expected to be fully paid by 2035. The current funding schedule is shown in Exhibit 3.2.

The funding schedule shown in Exhibit 3.2 has been modified from the schedule adopted by the Board at its July 30, 2014 meeting for fiscal years 2016 and beyond to reflect the decrease in liability and appropriations as a result of the transfer of employees of the Franklin Regional Council of Governments effective July 1, 2014. There is no impact on the appropriation for 2015 as reflected in the Board-approved schedule.

SECTION 1 - SUMMARY

A summary of principal valuation results from the current valuation and the prior valuation follows. Changes in actuarial assumptions and methods and Plan provisions are discussed below, as well as changes in census data and asset information.

Valuation Date	<u>1/1/2014</u>	<u>1/1/2012</u>	<u>Increase/ (Decrease)</u>
Summary of Member Data			
Active Members	928	929	(0.1%)
Average Age	48.3	49.0	(1.4%)
Average Service	10.5	10.9	(3.7%)
Total Salary	\$30,854,652	\$30,037,760	2.7%
Average Salary	\$33,249	\$32,333	2.8%
Retired Members and Beneficiaries	502	459	9.4%
Average Age	72.1	72.1	0.0%
Total Annual Pension	\$7,110,114	N/A	N/A
Average Annual Pension	\$14,164	N/A	N/A
State Reimbursed COLAs	\$48,505	N/A	N/A
Total System-Funded Pension	\$7,061,609	\$5,762,839	22.5%
Disabled Members	18	17	5.9%
Average Age	56.4	N/A	N/A
Total Annual Pension	\$468,928	N/A	N/A
Average Annual Pension	\$26,052	N/A	N/A
State Reimbursed COLAs	\$5,983	N/A	N/A
Total System-Funded Pension	\$462,946	\$392,325	18.0%
Inactive Members	563	583	(3.4%)
Annuity Savings Fund	3,500,750	\$3,078,801	13.7%
Actuarial Accrued Liability (AAL)	\$151,531,013	\$135,323,194	12.0%
Assets			
Market Value of Assets	\$114,408,871	\$84,547,387	35.3%
Actuarial Value of Assets	105,787,170	85,648,257	23.5%
Unfunded Accrued Liability	\$45,743,843	\$49,674,937	(7.9%)
Funded Status	69.8%	63.3%	10.3%
Normal Cost			
Employer	\$1,473,317	\$1,205,608	22.2%
Employee	2,891,670	2,629,061	10.0%
Administrative Expenses	450,000	465,976	(3.4%)
Total Normal Cost	\$4,814,987	\$4,300,645	12.0%

Franklin Regional Retirement System
Actuarial Valuation as of January 1, 2014

SECTION 1 - SUMMARY

Valuation Date	<u>1/1/2014</u>	<u>1/1/2012</u>	<u>Increase/ (Decrease)</u>
Appropriations			
Fiscal Year 2014	N/A	\$5,676,096	N/A
Fiscal Year 2015	\$5,888,495	\$5,888,495	0.0%
Fiscal Year 2016	\$5,727,313	\$6,109,580	(6.3%)
Fiscal Year 2017	\$5,941,329	\$6,339,705	(6.3%)

Actuarial Assumptions and Methods

Most of the Actuarial Assumptions and Methods used in this valuation are the same as those used in the last valuation, except the investment return rate was decreased from 7.875% to 7.75% and the termination rates were changed from age-based to service-based rates. Changing these assumptions resulted in a net decrease in the unfunded actuarial accrued liability of \$224,871. The Actuarial Assumptions and Methods utilized in this valuation are detailed in Section 6, Actuarial Assumptions and Methods.

Plan Provisions

Chapter 176 of the Acts of 2011 was incorporated in this valuation, which changes many of the benefit features for members hired on or after April 2, 2012. In addition, the COLA base was increased to \$15,000 effective July 1, 2014. Changing these plan provisions resulted in a net increase in the unfunded actuarial accrued liability of \$828,745. The Plan provisions utilized in this valuation are detailed in Section 5, Summary of Plan Provisions.

Census Data

As of January 1, 2014, there are 928 active members who may be eligible for benefits in the future, 502 retirees and beneficiaries, 563 inactives and 18 disabled retirees. Summaries of the active, retired and disabled members are included in Section 7, Demographic Information.

Assets

This valuation is based upon asset information reported to the Public Employee Retirement Administration Commission (PERAC) by the Franklin Regional Retirement Board. The market value of assets increased from \$84,547,387 as of January 1, 2012 to \$114,408,871 as of January 1, 2014. During the plan years ended 2012 and 2013, the rates of return on the market value of assets were 13.25% and 18.98%, respectively.

The actuarial value of assets increased from \$85,648,257 as of January 1, 2012 to \$105,787,170 as of January 1, 2014. During the plan years ended 2012 and 2013, the rates of return on the actuarial value of assets were 10.24% and 11.56%, respectively.

SECTION 2 - PRINCIPAL VALUATION RESULTS

Exhibit 2.1 - Plan Assets

Asset information is reported annually to the Public Employee Retirement Administration Commission by the Franklin Regional Retirement System. The Market Value of Assets for the two most recent calendar years are as follows:

Calendar Year	2013	2012
Trust Fund Composition at Year-End		
Cash	\$2,107,878	\$1,335,467
Short-Term Investments	0	0
Fixed Income Securities	0	0
Equities	32,327,581	25,682,412
Pooled Short Term Funds	0	0
Pooled Domestic Equity Funds	0	0
Pooled International Equity Funds	0	0
Pooled Global Equity Funds	0	0
Pooled Domestic Fixed Income Funds	11,880,754	12,017,656
Pooled International Fixed Income Funds	0	0
Pooled Global Fixed Income Funds	0	0
Pooled Alternative Investments	0	0
Pooled Real Estate Funds	5,496,236	4,989,676
Pooled Domestic Balanced Funds	0	0
Pooled International Balanced Funds	0	0
Hedge Funds	0	0
PRIT Cash	0	0
PRIT Fund	62,424,659	51,759,033
Interest Due & Accrued	32	65
Prepaid Expenses	3,801	4,672
Accounts Receivable	268,644	426,369
Land	0	0
Buildings	0	0
Accumulated Depreciation - Buildings	0	0
Accounts Payable	(100,714)	(114,075)
Total Market Value of Assets	\$114,408,871	\$96,101,275

SECTION 2 - PRINCIPAL VALUATION RESULTS

Exhibit 2.1 - Plan Assets

Calendar Year	2013	2012
Funds		
Annuity Savings Fund	\$27,949,619	\$27,352,295
Annuity Reserve Fund	8,674,305	8,074,409
Military Service Fund	0	3,492
Pension Fund	5,495,020	5,754,171
Expense Fund	0	0
Pension Reserve Fund	72,289,927	54,916,908
Total Market Value of Assets	\$114,408,871	\$96,101,275
Asset Activity		
Market value as of Beginning of Year	\$96,101,275	\$84,547,387
Contributions and Receipts	9,243,429	8,848,639
Benefit Payments and Expenses	(9,184,497)	(8,518,262)
Investment Return	18,248,664	11,223,511
Market Value as of End of Year	\$114,408,871	\$96,101,275
Computed Rate of Return	18.98%	13.25%

Returns and annualized past returns developed by PERAC are shown below. Information is obtained from the Annual Investment Reports published by PERAC for the years shown.

Year	1-Year Return	5-Year Return	Return (Since 1985)
2013	19.80%	13.33%	8.59%
2012	13.39%	2.69%	8.21%
2011	0.92%	2.28%	8.02%
2010	15.38%	4.69%	8.31%
2009	18.20%	3.26%	8.03%
2008	-26.82%	1.56%	7.63%
2007	11.13%	11.57%	9.45%
2006	13.40%	7.34%	9.37%
2005	7.70%	5.19%	9.19%
2004	8.77%	4.54%	9.26%

SECTION 2 - PRINCIPAL VALUATION RESULTS

Exhibit 2.1 - Plan Assets

Valuation Date	1/1/2014	1/1/2013
1. Market Value of Assets as of prior January 1	\$96,101,275	\$84,547,387
a. Prior Year Contributions and Receipts	9,243,429	8,848,639
b. Prior Year Benefit Payments and Expenses	(9,184,497)	(8,518,262)
c. Expected Investment Return Rate	7.875%	7.875%
d. Expected Investment Return	7,570,296	6,671,115
e. Expected Market Value of Assets as of Valuation Date	\$103,730,503	\$91,548,879
2. Prior Year Gain / (Loss)		
a. Market Value of Assets as of January 1	\$114,408,871	\$96,101,275
b. Expected Market Value of Assets	103,730,503	91,548,879
c. Prior Year Gain / (Loss)	10,678,368	4,552,396
3. Phase-In of Asset Gains and Losses		
	Unrecognized	Unrecognized
Plan Year	Gain / (Loss)	Gain / (Loss)
a. 2013	\$10,678,368	\$8,008,776
b. 2012	4,552,396	2,276,198
c. 2011	(6,653,093)	(1,663,273)
d. 2010	4,973,855	-
e. 2009	5,608,092	-
f. Total deferred gains/(losses)	8,621,701	1,331,214
4. Actuarial Value of Assets		
a. Market Value of Assets Less Unrecognized Gain / (Loss)	\$105,787,170	\$94,770,061
b. 90% of Market Value of Assets	102,967,984	86,491,148
c. 110% of Market Value of Assets	125,849,758	105,711,403
d. Actuarial Value of Assets, a., but not less than b. and not greater than c.	\$105,787,170	\$94,770,061
e. Ratio of Actuarial Value of Assets to Market Value of Assets	92.46%	98.61%
5. Rate of Return on Actuarial Value of Assets for Prior Calendar Year	11.56%	10.24%

SECTION 2 - PRINCIPAL VALUATION RESULTS

The **Actuarial Present Value of Future Benefits** is the present value of the cost to finance all benefits payable in the future, discounted to reflect the probability of payment and the time value of money. Below is the Actuarial Present Value of Future Benefits from the current valuation and the prior valuation:

Exhibit 2.2 - Actuarial Present Value of Future Benefits

Valuation Date	<u>1/1/2014</u>	<u>1/1/2012</u>
Actives		
Superannuation	\$84,325,332	
Termination	4,285,430	
Death	6,848,707	
Disability	11,006,604	
Total Actives	\$106,466,073	Not Available
Retired Members and Inactives		
Retired Members and Beneficiaries	\$70,811,128	\$56,271,771
Disabled Members	5,980,924	4,842,772
Inactive Members	3,500,750	3,078,801
Total Retired Members and Inactives	\$80,292,802	\$64,193,344
Total Present Value of Future Benefits	\$186,758,875	Not Available

The **Actuarial Accrued Liability** is the portion of the Actuarial Present Value of Future Benefits which is allocated to all periods prior to a valuation year and therefore is not provided for by future Normal Costs. Below is the Actuarial Accrued Liability from the current valuation and the prior valuation:

Exhibit 2.3 - Actuarial Accrued Liability

Valuation Date	<u>1/1/2014</u>	<u>1/1/2012</u>
Actives		
Superannuation	\$59,987,723	\$61,850,910
Termination	3,048,588	2,533,275
Death	3,389,210	1,739,571
Disability	4,812,690	5,006,094
Total Actives	\$71,238,211	\$71,129,850
Retired Members and Inactives		
Retired Members and Beneficiaries	\$70,811,128	\$56,271,771
Disabled Members	5,980,924	4,842,772
Inactive Members	3,500,750	3,078,801
Total Retired Members and Inactives	\$80,292,802	\$64,193,344
Total Actuarial Accrued Liability	\$151,531,013	\$135,323,194

Franklin Regional Retirement System
Actuarial Valuation as of January 1, 2014

SECTION 2 - PRINCIPAL VALUATION RESULTS

The **Normal Cost** is the portion of the Actuarial Present Value of Future Benefits which is allocated to a valuation year. Only active employees who have not reached Normal Retirement Age incur a Normal Cost. Below is the Normal Cost from the current valuation and the prior valuation:

Exhibit 2.4 - Normal Cost

Valuation Date	<u>1/1/2014</u>	<u>1/1/2012</u>
Actives		
Superannuation	\$2,531,934	
Termination	672,833	
Death	444,991	
Disability	715,229	
Total Actives	\$4,364,987	\$3,834,669
As a Percentage of Salary	14.1%	12.8%
Administrative Expenses		
As a Percentage of Salary	\$450,000 1.5%	\$465,976 1.6%
Total Normal Cost		
Normal Cost	\$4,814,987	\$4,300,645
As a Percentage of Salary	15.6%	14.3%
Employee Normal Cost		
Employee Contributions	\$2,891,670	\$2,629,061
As a Percentage of Salary	9.4%	8.8%
Employer Normal Cost		
Employer Normal Cost	\$1,923,317	\$1,671,584
As a Percentage of Salary	6.2%	5.6%

Exhibit 2.5 - Unfunded Actuarial Accrued Liability

Valuation Date	<u>1/1/2014</u>	<u>1/1/2012</u>
Unfunded Actuarial Accrued Liability		
a. Actuarial Accrued Liability	\$151,531,013	\$135,323,194
b. Actuarial Value of Assets	105,787,170	85,648,257
c. Unfunded Actuarial Accrued Liability (a. - b.)	\$45,743,843	\$49,674,937
d. Funded Ratio (b. divided by a.)	69.8%	63.3%

SECTION 2 - PRINCIPAL VALUATION RESULTS

Exhibit 2.6 - Actuarial Experience

In performing the actuarial valuation, various assumptions are made regarding mortality, retirement, disability and withdrawal rates as well as salary increases and investment returns. A comparison of the results of the current valuation and the prior valuation is made to determine how closely actual experience relates to expected. During the two years since the last valuation, the total unfunded actuarial accrued liability of the System was expected to decrease by \$1,567,285. Below is the development of the Actuarial Gain or Loss for the current 2-year period:

Calendar Year Ending	<u>12/31/2013</u>	<u>12/31/2012</u>
Expected Unfunded Actuarial Accrued Liability		
a. Unfunded Actuarial Accrued Liability, beginning of year	\$49,029,105	\$49,674,937
b. Normal cost, beginning of year	\$4,472,671	4,300,645
c. Total contributions	9,243,429	8,848,639
d. Interest (full year on a. and b., one-half year on c.)	3,849,305	3,902,162
e. Expected Unfunded Actuarial Accrued Liability	\$48,107,652	\$49,029,105
f. Unfunded Actuarial Accrued Liability (before changes)	\$45,139,969	
g. (Gain)/Loss	(\$2,967,683)	
Asset (gain)/loss		
a. Actuarial value of assets, beginning of year	\$94,770,061	\$85,648,257
b. Contributions and Receipts	9,243,429	8,848,639
c. Benefit Payments and Expenses	(9,184,497)	(8,518,262)
d. Assumed rate of return	7.875%	7.875%
e. Expected return	7,465,463	6,757,809
f. Actuarial value of assets, end of year	105,787,170	94,770,061
g. Actual return	10,958,177	8,791,427
h. Actual rate of return	11.56%	10.24%
i. Asset (gain)/loss	(\$3,492,714)	(\$2,033,618)
j. Total asset (gain)/loss, 2-year period	(\$5,686,480)	
Actual Unfunded Actuarial Accrued Liability		
a. Changes due to:		
i) Asset (gain)/loss	(\$5,686,480)	
ii) (Gain)/loss from demographic experience	2,718,797	
iii) (Gain)/loss prior to changes	(2,967,683)	
iv) Plan change - apply Chapter 176	-	
v) Plan change - increase COLA base	828,745	
vi) Assumption change - decrements	(2,208,790)	
vii) Assumption change - Investment Return Rate	1,983,919	
viii) Total changes	(2,363,809)	
b. Unfunded Actuarial Accrued Liability, end of year	\$45,743,843	

SECTION 3 - CHAPTER 32 OF M.G.L. APPROPRIATIONS

Exhibit 3.1 - Annual Appropriations

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

Amortization Payments	<u>1/1/2014</u>
a. Early Retirement Incentive (2002)	
Fully Funded Year	2019
Balance as of valuation date	\$584,500
Amortization Amount	\$134,968
Remaining Payment Period	5
b. Early Retirement Incentive (2003)	
Fully Funded Year	2020
Balance as of valuation date	\$203,175
Amortization Amount	\$40,480
Remaining Payment Period	6
c. Remaining Unfunded Actuarial Liability	
Fully Funded Year	2035
Balance as of valuation date	\$44,956,168
Amortization Amount	\$2,981,704
Remaining Payment Period	21
d. Total Amortization Payments	\$3,157,152
Normal Cost	\$1,923,317
Net 3(8)(c) Transfers	\$441,178
Total Appropriation as of January 1, 2014	\$5,521,647
Adjusted for Semi-Annual Payments	\$5,838,563

SECTION 3 - CHAPTER 32 OF M.G.L. APPROPRIATIONS

Exhibits 3.2 and 3.3, are based on the assumptions below:

Exhibit 3.2:

- Employer Normal Cost is expected to increase 4% per year. The Employer Normal Cost is further adjusted to reflect the reduction in appropriation for the transfer of employees of the Franklin Regional Council of Governments to the State effective July 1, 2014.
- The Unfunded Actuarial Accrued Liability ("UAL") is computed as of January 1 of each year assuming no future gains or losses.
- The Amortization Payment of UAL is to be paid over 21 years through 2035.
- The Amortization Payment of ERI is a level amortization of the UAL attributable to the ERI programs for 2002 and 2003 over 5 years and 6 years, respectively.
- Net 3(8)(c) transfers are a level dollar amount based on the net transfers expected to be paid by the Franklin Regional Retirement Board during the current year offset by the amount received during the same period.
- Total Employer Cost is the sum of the Employer Normal Cost, the Amortization Payments of the UAL and the ERI programs and the Net 3(8)(c) Transfers, all computed as of January 1 of each year and adjusted for semi-annual payments made on July 1 and January 1.
- For fiscal year 2015, we show the actual appropriation developed under the previous funding schedule of \$5,888,495. The Board opted to retain the appropriations developed from the previously adopted funding schedule starting in fiscal year 2016. The funding schedule appropriations are further adjusted (reduced) to reflect the transfer of employees of the Franklin Regional Council of Governments to the State effective July 1, 2014.

Exhibit 3.3:

- Expected benefit payments include payments expected to be made to retired members, beneficiaries, disabled members and active members expected to retire. In addition, expected benefit payments include distribution of the annuity savings fund attributed to inactive members.
- Benefit payments exclude cost-of-living increases granted to members in pay status between 1982 and 1997. In addition, benefit payments are as expected for the first ten years of the forecast, then increase by the greater of 4.50% per year thereafter or the expected future payments for the current population projected by our computer model.
- Calendar year cash flow entries are developed as of each January 1.

SECTION 3 - CHAPTER 32 OF M.G.L. APPROPRIATIONS

Exhibit 3.2 - 30-Year Forecast of Annual Appropriations

Fiscal Year Ending	Employer Normal Cost	Amortization Payment of UAL	Amortization Payment of ERI 2002	Amortization Payment of ERI 2003	Net 3(8)(c) Transfers	Total Employer Cost	Unfunded Actuarial Accrued Liability
2015	\$2,033,706	\$3,202,771	\$142,715	\$42,803	\$466,500	\$5,888,495	45,743,843
2016	1,732,786	3,342,509	142,715	42,803	466,500	5,727,313	45,836,279
2017	1,801,280	3,488,031	142,715	42,803	466,500	5,941,329	45,793,484
2018	1,872,498	3,639,581	142,715	42,803	466,500	6,164,097	45,599,082
2019	1,946,552	3,797,406	142,715	42,803	466,500	6,395,976	45,235,184
2020	2,023,763	3,961,341	-	42,803	466,500	6,494,407	44,682,258
2021	2,103,891	4,132,360	-	-	466,500	6,702,751	44,064,856
2022	2,187,140	4,310,620	-	-	466,500	6,964,260	43,268,952
2023	2,273,700	4,496,266	-	-	466,500	7,236,466	42,229,716
2024	2,363,705	4,689,600	-	-	466,500	7,519,805	40,920,764
2025	2,457,289	4,890,944	-	-	466,500	7,814,733	39,313,358
2026	2,554,598	5,100,627	-	-	466,500	8,121,725	37,376,206
2027	2,655,778	5,318,998	-	-	466,500	8,441,276	35,075,254
2028	2,760,982	5,546,417	-	-	466,500	8,773,899	32,373,455
2029	2,870,373	5,783,257	-	-	466,500	9,120,130	29,230,525
2030	2,984,116	6,029,909	-	-	466,500	9,480,525	25,602,674
2031	3,102,383	6,286,781	-	-	466,500	9,855,664	21,442,322
2032	3,225,355	6,554,298	-	-	466,500	10,246,153	16,697,787
2033	3,405,188	6,832,899	-	-	466,500	10,704,587	11,312,947
2034	3,990,277	5,060,384	-	-	466,500	9,517,161	5,226,885
2035	4,149,889	502,653	-	-	466,500	5,119,042	475,369
2036	4,315,884	-	-	-	466,500	4,782,384	-
2037	4,488,519	-	-	-	466,500	4,955,019	-
2038	4,668,060	-	-	-	466,500	5,134,560	-
2039	4,854,782	-	-	-	466,500	5,321,282	-
2040	5,048,973	-	-	-	466,500	5,515,473	-
2041	5,250,933	-	-	-	466,500	5,717,433	-
2042	5,460,970	-	-	-	466,500	5,927,470	-
2043	5,679,408	-	-	-	466,500	6,145,908	-
2044	5,906,586	-	-	-	466,500	6,373,086	-

Franklin Regional Retirement System
Actuarial Valuation as of January 1, 2014

SECTION 3 - CHAPTER 32 OF M.G.L. APPROPRIATIONS

Exhibit 3.3 - 30-Year Forecast of Cash Flow

Calendar Year	Assets, BOY	Benefit Payments	Employee Contributions	Employer Contributions	Investment Return	Assets, EOY
2014	\$114,408,871	\$11,669,383	\$2,891,670	\$5,568,868	\$9,070,191	\$120,270,217
2015	120,270,217	8,673,732	3,007,337	5,416,435	9,637,677	129,657,935
2016	129,657,935	9,169,555	3,127,630	5,618,835	10,371,021	139,605,865
2017	139,605,865	9,752,726	3,252,735	5,829,511	11,145,411	150,080,796
2018	150,080,796	10,401,799	3,382,844	6,048,803	11,959,145	161,069,790
2019	161,069,790	11,073,467	3,518,158	6,141,892	12,802,466	172,458,839
2020	172,458,839	11,748,745	3,658,884	6,338,927	13,685,126	184,393,030
2021	184,393,030	12,507,090	3,805,239	6,586,241	14,611,150	196,888,570
2022	196,888,570	13,247,277	3,957,449	6,843,672	15,582,619	210,025,034
2023	210,025,034	14,012,818	4,115,747	7,111,632	16,604,065	223,843,659
2024	223,843,659	14,750,332	4,280,377	7,390,551	17,680,805	238,445,060
2025	238,445,060	15,532,542	4,451,592	7,680,879	18,817,873	253,862,862
2026	253,862,862	16,319,638	4,629,656	7,983,085	20,019,473	270,175,438
2027	270,175,438	17,056,177	4,814,842	8,297,654	21,293,888	287,525,644
2028	287,525,644	17,823,705	5,007,436	8,625,091	22,649,090	305,983,556
2029	305,983,556	18,625,772	5,207,733	8,965,924	24,090,435	325,621,876
2030	325,621,876	19,463,932	5,416,042	9,320,700	25,623,566	346,518,252
2031	346,518,252	20,339,809	5,632,684	9,689,994	27,254,504	368,755,625
2032	368,755,625	21,255,100	5,857,991	10,123,543	28,993,495	392,475,554
2033	392,475,554	22,211,580	6,092,311	9,000,571	30,725,855	416,082,711
2034	416,082,711	23,211,101	6,336,003	4,841,180	32,213,212	436,262,005
2035	436,262,005	24,255,601	6,589,443	4,522,797	33,731,599	456,850,243
2036	456,850,243	25,347,103	6,853,021	4,686,062	35,317,973	478,360,196
2037	478,360,196	26,487,723	7,127,142	4,855,857	36,975,198	500,830,669
2038	500,830,669	27,679,671	7,412,228	5,032,443	38,706,252	524,301,922
2039	524,301,922	28,925,256	7,708,717	5,216,094	40,514,218	548,815,695
2040	548,815,695	30,226,893	8,017,066	5,407,091	42,402,296	574,415,255
2041	574,415,255	31,587,103	8,337,749	5,605,727	44,373,801	601,145,430
2042	601,145,430	33,008,523	8,671,259	5,812,309	46,432,167	629,052,642
2043	629,052,642	34,493,907	9,018,109	6,027,155	48,580,949	658,184,948

Franklin Regional Retirement System
Actuarial Valuation as of January 1, 2014

SECTION 4 - REQUIRED DISCLOSURES

The Governmental Accounting Standards Board (GASB) requires certain disclosures of pension liabilities for public employer financial statements in accordance with Statement Numbers 25 and 27. Footnote disclosures required by GASB Statement Numbers 25 and 27 include a description of the Plan, a summary of significant accounting policies and information about contributions, legally required reserves and investment concentrations. The Annual Required Contribution (ARC) shown is for the fiscal year beginning the following July 1.

Below is the required disclosure information:

<u>Valuation Date</u>	<u>1/1/2014</u>	<u>1/1/2012</u>
1. Actuarial Accrued Liability	\$151,531,013	\$135,323,194
2. Actuarial Value of Assets	105,787,170	85,648,257
3. Unfunded Actuarial Accrued Liability (UAAL)	\$45,743,843	\$49,674,937
4. Funded Ratio = 2. ÷ 1.	69.8%	63.3%
5. Covered Payroll	\$30,854,652	\$30,037,760
6. UAAL as a Percentage of Covered Payroll = 3. ÷ 5.	148.3%	165.4%
7. Annual Required Contribution (ARC)	\$5,888,495	\$5,290,063
8. Net Pension Obligation	\$0	\$0

Schedule of Funding Progress

Actuarial Valuation Date	Actuarial Value of Assets (a)	Actuarial Accrued Liability (b)	Unfunded AAL (UAAL) (b-a)	Funded Ratio (a/b)	Covered Payroll (c)	UAAL as a Percentage of Covered Payroll ((b-a) / c)
1/1/2014	105,787,170	151,531,013	45,743,843	69.8%	30,854,652	148.3%
1/1/2012	85,648,257	135,323,194	49,674,937	63.3%	30,037,760	165.4%
1/1/2010	79,458,638	119,349,250	39,890,612	66.6%	29,457,390	135.4%
1/1/2008	77,859,319	105,972,317	28,112,998	73.5%	30,302,151	92.8%
1/1/2006	61,538,920	91,823,106	30,284,186	67.0%	26,228,669	115.5%
1/1/2003	41,299,000	72,770,000	31,471,000	56.8%	23,638,000	133.1%

Franklin Regional Retirement System
Actuarial Valuation as of January 1, 2014

SECTION 4 - REQUIRED DISCLOSURES

The most recent actuarial valuation of the System was prepared by KMS Actuaries, LLC as of January 1, 2014.

The normal cost for employees on that date was:	\$2,891,670	9.4% of payroll
The normal cost for the employer was:	\$1,923,317	6.2% of payroll

The actuarial liability for active members was:	\$71,238,211
The actuarial liability for retired and inactive members was:	80,292,802
Total actuarial liability:	\$151,531,013
System assets as of that date:	\$105,787,170
Unfunded actuarial accrued liability:	\$45,743,843

The ratio of System assets to total actuarial accrued liability was: 69.8%

The principal actuarial assumptions used in the valuation are as follows:

Investment Return:	7.75%
Rate of Salary Increase:	4% for all groups

Schedule of Funding Progress

Actuarial Valuation Date	Actuarial Value of Assets (a)	Actuarial Accrued Liability (b)	Unfunded AAL (UAAL) (b- a)	Funded Ratio (a/b)	Covered Payroll (c)	UAAAL as a Percentage of Covered Payroll ((b-a) / c)
1/1/2014	105,787,170	151,531,013	45,743,843	69.8%	30,854,652	148.3%
1/1/2012	85,648,257	135,323,194	49,674,937	63.3%	30,037,760	165.4%
1/1/2010	79,458,638	119,349,250	39,890,612	66.6%	29,457,390	135.4%
1/1/2008	77,859,319	105,972,317	28,112,998	73.5%	30,302,151	92.8%
1/1/2006	61,538,920	91,823,106	30,284,186	67.0%	26,228,669	115.5%
1/1/2003	41,299,000	72,770,000	31,471,000	56.8%	23,638,000	133.1%

SECTION 5 - SUMMARY OF PLAN PROVISIONS

Administration There are 105 contributory retirement systems for public employees in Massachusetts. Each system is governed by a retirement board and all boards, although operating independently, are governed by Chapter 32 of the Massachusetts General Laws and other applicable statutes. This law in general provides uniform benefits, uniform contribution requirements and a uniform accounting and funds structure for all systems.

Participation Participation is mandatory for all full-time employees. Eligibility with respect to part-time, provisional, temporary, seasonal or intermittent employment is governed by regulations promulgated by the local retirement board, and approved by PERAC. Membership is optional for certain elected officials.

There are four classes of membership in the Retirement System:

- | | |
|----------|--|
| Group 1: | General employees, including clerical, administrative, technical and all other employees not otherwise classified. |
| Group 2: | Certain specified hazardous duty positions. |
| Group 3: | State police officers and inspectors. |
| Group 4: | Local police officers, firefighters and other specified hazardous positions. |

For members in more than one group, participation will be proportional.

Member Contributions Member contributions vary depending on the most recent date of membership:

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

Rate of Interest Interest on regular deductions made after January 1, 1984 is a rate established by PERAC in consultation with the Commissioner of Banks. The rate is obtained from the average rates paid on individual savings accounts by a representative sample of at least ten financial institutions.

SECTION 5 - SUMMARY OF PLAN PROVISIONS

Retirement Age The mandatory retirement age for some Group 2 and Group 4 members is age 65. Most Group 2 and Group 4 members may remain in service after reaching age 65. Group 4 members who are employed in certain public safety positions are required to retire at age 65. There is no mandatory retirement age for members in Group 1.

Salary Gross regular compensation. This does not include bonuses, overtime, severance pay, unused sick leave credit or other similar compensation.

Average Salary Membership before April 2, 2012: Average annual rate of regular compensation received during the three consecutive years that produce the highest average, or, if greater, during the last three years (whether or not consecutive) preceding retirement.
 Membership on or after April 2, 2012: Average annual rate of regular compensation received during the five consecutive years that produce the highest average, or, if greater, during the last five years (whether or not consecutive) preceding retirement.

Creditable Service The period during which a member contributes to the retirement system plus certain periods of military service and “purchased” service.

Benefit Rate The benefit rate varies with the member's retirement age, Group, membership date and years of creditable service at retirement. Each year a member retires prior to the age at which the 2.5% maximum benefit rate applies, a reduction is applied to each year of age under the maximum age. The maximum age and reduction for each Group and membership date is as follows:

	<u>Group 1</u>	<u>Group 2</u>	<u>Group 4</u>
2.5% for Membership before April 2, 2012:			
Maximum age:	65	60	55
Reduction:	0.1%	0.1%	0.1%
2.5% for Membership on or after April 2, 2012 (less than 30 years of service):			
Maximum age:	67	62	57
Reduction:	0.15%	0.15%	0.15%
2.5% for Membership on or after April 2, 2012 (30+ years of service):			
Maximum age:	67	62	57
Reduction:	0.125%	0.125%	0.125%

Franklin Regional Retirement System
 Actuarial Valuation as of January 1, 2014

SECTION 5 - SUMMARY OF PLAN PROVISIONS

Superannuation Retirement	Eligibility if membership before April 2, 2012:	<ul style="list-style-type: none"> • completion of 20 years of Creditable Service, or • attainment of age 55 if hired prior to 1978, or • attainment of age 55 with 10 years of Creditable Service, if hired after 1978.
	Eligibility if membership on or after April 2, 2012:	<ul style="list-style-type: none"> • attainment of age 60 with 10 years of Creditable Service if classified in Group 1 • attainment of age 55 with 10 years of Creditable Service if classified in Group 2 • attainment of age 55 if hired prior to 1978 or if classified in Group 4
	Benefit Amount	Product of the member's Benefit Rate, Average Salary and Creditable Service.
	Maximum Benefit	80% of the member's Average Salary.
	Veteran's Benefit	Additional benefit of \$15 per year of Creditable Service, up to a maximum of \$300.
Deferred Vested	Eligibility	<ul style="list-style-type: none"> • completion of ten or more years of Creditable Service. • elected officials hired prior to 1978, completion of six years of Creditable Service.
	Benefit Amount	Accrued benefit payable commencing at age 55, or the completion of 20 years of Creditable Service, or may be deferred until later at the participant's option.
Withdrawal of Contributions		<p>Contributions may be withdrawn upon termination of employment.</p> <ul style="list-style-type: none"> • Members who voluntarily terminate with at least ten years of creditable service will receive 100% of the regular interest that has accrued to the Annuity Savings Account. • Members who voluntarily terminate with fewer than ten years of creditable service will receive interest on the Annuity Savings Account at the annual rate of 3%.

SECTION 5 - SUMMARY OF PLAN PROVISIONS

Ordinary Disability Retirement	Eligibility	Non-job related disability after completion of ten years of Creditable Service.
	Benefit Amount for Group 1 membership before April 2, 2012 or Group 2 or Group 4	Superannuation benefit determined if the member is age 55, up to a maximum of 80% of Average Salary over three years. If the member is a veteran, 50% of final rate of salary (final year) plus an annuity based on the accumulated member contributions plus credited interest, up to a maximum of 80% of Average Salary over five years.
	Benefit Amount for Group 1 membership on or after April 2, 2012	Superannuation benefit determined if the member is age 60, up to a maximum of 80% of Average Salary over three years. If the member is a veteran, 50% of final rate of salary (final year) plus an annuity based on the accumulated member contributions plus credited interest, up to a maximum of 80% of Average Salary over five years.
Accidental Disability Retirement	Eligibility	Disabled as a result of an accident in the performance of duties. There is no minimum age or service requirement.
	Benefit Amount	72% of Salary plus an annuity based on accumulated member contributions plus credited interest.
	Maximum Benefit	100% of Salary if hired before January 1, 1988, otherwise 75% of Salary.
	Veteran's Benefit	Additional allowance of \$15 per year of Creditable Service, up to a maximum of \$300.
	Supplemental Dependent	Additional allowance of \$415 per year for each child.

SECTION 5 - SUMMARY OF PLAN PROVISIONS

Non-Occupational Death	Eligibility	For members with at least two years of creditable service who die while in active service, but not due to occupational injury.
	Benefit Amount	Benefit as if Option C had been elected. Minimum benefit of \$250 per month for surviving spouse, \$120 per month for first child and \$90 per month for each additional child.
Accidental Death	Eligibility	For members who die as a result of an occupational injury.
	Benefit Amount	72% of Salary plus an annuity based on accumulated member contributions plus credited interest.
	Maximum Benefit	100% of Salary if hired before January 1, 1988, otherwise 75% of Salary.
	Veteran's Benefit	Additional allowance of \$15 per year of creditable service, up to a maximum of \$300.
	Supplemental Dependent Allowance	Additional allowance of \$708.60 per year for each child until age 18 (or age 22 if a full-time student).
Cost-of-Living Adjustment (COLA)	In accordance with the adoption of Chapter 17 of the Acts of 1997, the granting of a Cost-of-Living Adjustment will be determined by an annual vote by the Retirement Board. The amount of increase will be based upon the Consumer Price Index, limited to a maximum of 3.0%, beginning on July 1. All retirees, disabled retirees and beneficiaries who have been receiving benefit payments for at least one year as of July 1 are eligible for the adjustment. The maximum amount of pension benefit subject to a COLA is \$15,000, effective July 1, 2014. All COLAs granted to members after 1981 and prior to July 1, 1998 are deemed to be an obligation of the Commonwealth of Massachusetts and are not the liability of the Retirement System.	

SECTION 5 - SUMMARY OF PLAN PROVISIONS

Optional Forms of Payment A member may elect to receive his or her retirement allowance in one of three forms of payment:

- Option A – Life annuity.
- Option B – Life annuity with death benefit equal to excess of member contributions plus credited interest to retirement over annuity benefit paid to member.
- Option C – A reduced annual allowance commencing at retirement with 66⅔% of benefit continued to designated beneficiary upon death of member. For members who retired on or after January 12, 1988, if the beneficiary pre-deceases the retiree, the benefit payable increases based on the factor used to determine the Option C benefit at retirement.

For members who retired prior to January 12, 1988, if the System has accepted Section 288 of Chapter 194 of the Acts of 1998 and the beneficiary pre-deceases the retiree, the benefit payable increases based on the factor used to determine the Option C benefit at retirement.

SECTION 6 - ACTUARIAL ASSUMPTIONS AND METHODS

Valuation Date: January 1, 2014

Investment Return: 7.75% per year. Previously, 7.875% per year.

Annuity Savings Fund Interest Rate: 2.00% per year

Amortization Method: *Unfunded Actuarial Accrued Liability (UAAL):*
Increasing dollar amount at 4% to reduce the Unfunded Actuarial Accrued Liability to zero on or before June 30, 2035.

Early Retirement Incentive Programs (ERI):
Level dollar amount over five years (2002 ERI) and six years (2003 ERI).

Salary Scale: The assumed annual rate for salary increases including longevity is 4%. No change from prior valuation.

Cost-of-Living Allowance: Cost-of-Living Allowances (COLA) are assumed to be 3% of the pension amount, capped at \$450 per year. Previously, 3% of the pension amount, capped at \$420 per year.

Mortality Table: RP-2000 Mortality Table Projected to 2017 with Scale AA. RP-2000 Mortality Table set forward two years for disabled members. No change from prior valuation.

General Employees: 55% of deaths are job-related.
Police and Fire : 90% of deaths are job-related.

Turnover Rates: Illustrative turnover rates are shown below:

<u>Creditable Service</u>	<u>General Employees</u>	<u>Police and Fire</u>
0	0.1500	0.0150
10	0.0540	0.0150
20	0.0200	0.0000
30	0.0000	0.0000

SECTION 6 - ACTUARIAL ASSUMPTIONS AND METHODS

Disability Rates:

Illustrative disability rates are shown below:

<u>Attained Age</u>	<u>General Employees</u>	<u>Police and Fire</u>
20	0.0003	0.0010
25	0.0004	0.0012
30	0.0006	0.0018
35	0.0008	0.0026
40	0.0012	0.0038
45	0.0018	0.0058
50	0.0031	0.0098
55	0.0050	0.0160
60	0.0061	0.0197

General Employees: 55% of disabilities are accidental and 45% are ordinary.

Police and Fire: 90% of disabilities are accidental and 10% are ordinary.

Retirement Rates:

Illustrative retirement rates are shown below:

<u>Age</u>	<u>Group 1 & 2</u>	<u>Group 4</u>
50	0.0000	0.0200
51	0.0000	0.0200
52	0.0000	0.0200
53	0.0000	0.0200
54	0.0000	0.0200
55	0.1000	0.0500
56	0.0300	0.0500
57	0.0300	0.0500
58	0.0300	0.0500
59	0.0500	0.0500
60	0.0500	0.1000
61	0.0500	0.1000
62	0.1000	0.2000
63	0.1000	0.2000
64	0.1000	0.2000
65	0.5000	1.0000
66	0.3500	1.0000
67	0.3500	1.0000
68	0.3500	1.0000
69	0.3500	1.0000
70	1.0000	1.0000

SECTION 6 - ACTUARIAL ASSUMPTIONS AND METHODS

Actuarial Cost Method:	Individual Entry Age Normal.
Actuarial Asset Method:	<p>The Actuarial Value of Assets is the market value of assets as of the valuation date reduced by the sum of:</p> <ul style="list-style-type: none">a) 75% of gains and losses of the prior year,b) 50% of gains and losses of the second prior year andc) 25% of gains and losses of the third prior year. <p>Investment gains and losses are determined by the excess or deficiency of the expected return over the actual return on the market value. The actuarial valuation of assets is further constrained to be not less than 90% or more than 110% of market value.</p>
Census Data:	Census data as of the valuation date were submitted by the Retirement Board.
Asset Data:	Asset information is reported annually to the Public Employee Retirement Administration Commission by the Franklin Regional Retirement System.
Dependents:	85% of all members will be survived by a spouse. Age assumption for spouses is that males are assumed to be three years older than females.
Administrative Expenses:	The anticipated administrative expenses for the fiscal year. For Fiscal Year 2015, the administrative expenses were assumed to be \$450,000 and is anticipated to increase at 4% per year.

SECTION 7 - PLAN MEMBER INFORMATION

Exhibit 7.1 - Active Members by Age and Years of Service as of January 1, 2014

Age	Years of Service									Total
	0 to 4	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 to 39	40 & up	
Under 20	-	-	-	-	-	-	-	-	-	0
	-	-	-	-	-	-	-	-	-	0
20-24	27	-	-	-	-	-	-	-	-	27
	22,886	-	-	-	-	-	-	-	-	22,886
25 to 29	46	4	-	-	-	-	-	-	-	50
	28,711	39,588	-	-	-	-	-	-	-	29,581
30 to 34	39	18	5	-	-	-	-	-	-	62
	29,137	42,221	45,566	-	-	-	-	-	-	34,261
35 to 39	35	21	14	4	-	-	-	-	-	74
	20,294	31,367	41,927	55,079	-	-	-	-	-	29,409
40 to 44	51	26	18	10	3	1	-	-	-	109
	25,013	32,327	44,831	46,525	50,405	63,903	-	-	-	33,059
45 to 49	35	42	24	13	11	6	1	-	-	132
	31,420	29,580	35,407	35,544	47,024	55,990	47,568	-	-	34,505
50 to 54	34	36	48	27	23	5	6	-	-	179
	28,330	24,366	31,105	32,791	49,890	51,244	56,254	-	-	33,296
55 to 59	36	19	34	27	20	17	5	5	-	163
	33,524	32,675	32,183	36,283	35,262	47,310	43,577	56,632	-	36,270
60 to 64	17	12	21	9	22	14	7	1	1	104
	32,447	29,727	33,532	45,688	30,984	30,954	30,229	47,998	59,198	33,245
65 to 69	3	1	6	7	2	3	2	-	-	24
	36,612	34,144	42,230	26,505	30,566	24,573	35,130	-	-	32,833
70 & up	-	-	3	-	1	-	-	-	-	4
	-	-	49,103	-	34,219	-	-	-	-	45,382
Total	323	179	173	97	82	46	21	6	1	928
Average Salary	27,839	30,999	35,628	37,210	40,222	42,770	42,135	55,193	59,198	33,249
					Average Age:		48.3	Average Service:		10.5

Franklin Regional Retirement System
Actuarial Valuation as of January 1, 2014

SECTION 7 - PLAN MEMBER INFORMATION

Exhibit 7.2 - Retired Plan Members and Beneficiaries Annual Pensions as of January 1, 2014

Attained Age	Male		Female		Total	
	Count	Total Payments	Count	Total Payments	Count	Total Payments
<20	0	0	0	0	0	0
20-24	0	0	0	0	0	0
25-29	0	0	0	0	0	0
30-34	0	0	0	0	0	0
35-39	0	0	0	0	0	0
40-44	0	0	1	5,291	1	5,291
45-49	0	0	0	0	0	0
50-54	1	10,511	0	0	1	10,511
55-59	13	405,618	22	155,555	35	561,173
60-64	34	684,565	57	748,809	91	1,433,374
65-69	36	746,075	62	798,372	98	1,544,448
70-74	41	729,316	56	822,109	97	1,551,425
75-79	32	477,322	41	455,216	73	932,537
80-84	20	294,085	31	303,442	51	597,527
85-89	17	171,290	24	177,174	41	348,464
90-94	5	80,878	7	37,821	12	118,699
95+	1	3,340	1	3,325	2	6,665
Total	200	3,602,999	302	3,507,115	502	7,110,114
Average Age	72.5		71.8		72.1	
Average Payment		18,015		11,613		14,164
	39.8%	50.7%	60.2%	49.3%	100.0%	100.0%

Included in above totals is \$48,505 in State reimbursed COLAs.

SECTION 7 - PLAN MEMBER INFORMATION

Exhibit 7.3 - Disabled Plan Members Annual Pensions as of January 1, 2014

Attained Age	Male		Female		Total	
	Count	Total Payments	Count	Total Payments	Count	Total Payments
<20	0	0	0	0	0	0
20-24	0	0	0	0	0	0
25-29	0	0	0	0	0	0
30-34	0	0	0	0	0	0
35-39	1	41,474	0	0	1	41,474
40-44	1	36,829	0	0	1	36,829
45-49	4	107,777	0	0	4	107,777
50-54	2	53,581	1	27,925	3	81,505
55-59	2	48,747	1	3,918	3	52,665
60-64	2	50,977	0	0	2	50,977
65-69	2	60,220	0	0	2	60,220
70-74	0	0	0	0	0	0
75-79	2	37,482	0	0	2	37,482
80-84	0	0	0	0	0	0
85-89	0	0	0	0	0	0
90-94	0	0	0	0	0	0
95+	0	0	0	0	0	0
Total	16	437,086	2	31,842	18	468,928
Average Age	56.3		57.0		56.4	
Average Payment		27,318		15,921		26,052
	88.9%	93.2%	11.1%	6.8%	100.0%	100.0%

Included in above totals is \$5,983 in State reimbursed COLAs.

SECTION 8 - GLOSSARY OF TERMS

Actuarial Accrued Liability – That portion of the Actuarial Present Value of pension plan benefits which is not provided by future Normal Costs or employee contributions. It is the portion of the Actuarial Present Value attributable to service rendered as of the Valuation Date.

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

Actuarial Cost Method (or Funding Method) – A procedure for allocating the Actuarial Present Value of all past and future pension plan benefits to the current year (Normal Cost) and the past (Actuarial Accrued Liability).

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

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

Amortization Payment – That portion of the pension plan appropriation which represents payments made to pay interest on and the reduction of the Unfunded Accrued Liability.

Annual Required Contribution (ARC) – The employer's periodic required contributions to a defined benefit pension plan, calculated in accordance with the rules required by the Governmental Accounting Standards Board (GASB).

Annual Statement – The statement submitted by the local retirement board to PERAC each year that describes the asset holdings and Fund balances as of December 31 and the transactions during the calendar year that affected the financial condition of the retirement system.

Annuity Reserve Fund – The fund into which total accumulated Member Contributions, including interest, is transferred at the time a member retires, and from which annuity payments are made.

Annuity Savings Fund – The fund in which Member Contributions plus interest credited are held for active members and for former members who have not withdrawn their contributions and are not yet receiving a benefit (inactive members).

SECTION 8 - GLOSSARY OF TERMS

Assets – The total value of the investments held by the Plan trust that are for the payment of promised benefits.

Cost of Benefits – The estimated payment from the pension system for benefits for the fiscal year.

Expense Fund – The fund into which the appropriation for administrative expenses is paid and from which all such expenses are paid.

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

Funding Schedule – The schedule based upon the most recently approved actuarial valuation which sets forth the amount which would be appropriated to the pension system in accordance with Section 22D of M.G.L. Chapter 32.

GASB – Governmental Accounting Standards Board.

Normal Cost – Total Normal Cost is that portion of the Actuarial Present Value of pension plan benefits which is expected to accrue in the current fiscal year. The Employee Normal Cost is the amount of the expected Member Contributions for the current fiscal year. The Employer Normal Cost is the difference between the Total Normal Cost and the Employee Normal Cost.

Pension Benefit Obligation – The portion of the Actuarial Present Value attributable to past service in accordance with the Projected Unit Credit cost method as stipulated by GASB Statement Number 5 (GASB 5). GASB 5 has been superseded by GASB Statements Number 25 and 27.

Pension Fund – The fund into which appropriation amounts as determined by PERAC are paid and from which pension benefits are paid.

Pension Reserve Fund – The fund which shall be credited with all amounts set aside by a system for the purpose of establishing a reserve to meet future pension liabilities. These amounts would include excess interest earnings.

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

Special Fund for Military Service Credit – The fund which is credited with amounts paid by the retirement board equal to the amount which would have been contributed by a member during a military leave of absence as if the member had remained in active service of the retirement board. In the event of retirement or a non-job related death, such amount is transferred to the Annuity Reserve Fund. In the event of termination prior to retirement or death, such amount shall be transferred to the Pension Fund.

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