

NEW HAMPSHIRE RETIREMENT SYSTEM
CAFR SCHEDULES AND GASB STATEMENT NO. 67 PLAN
REPORTING AND ACCOUNTING SCHEDULES
JUNE 30, 2015

October 30, 2015

Board of Trustees
New Hampshire Retirement System
54 Regional Drive
Concord, New Hampshire 03301-8509

Attention: Mr. George Lagos

Dear Board of Trustees:

This report was prepared at the request of the Board and is intended for use by the Retirement System and those designated or approved by the Board. This report may be provided to parties other than the System only in its entirety and only with the permission of the Board. This report should not be relied on for any purpose other than the purposes described below.

The purposes of this report are:

- To provide information in connection with Governmental Accounting Standards Board (GASB) Statement No. 67 “Financial Reporting for Pension Plans” as of June 30, 2015.
- To provide supporting schedules for the Comprehensive Annual Financial Report for the System’s use in the Actuarial Section, the Statistical Section, Notes to the Financial Statements, and Required Supplementary Information.

The report was based upon information, furnished by New Hampshire Retirement System (NHRS) staff, concerning Retirement System benefits, financial transactions, and active members, terminated members, retirees and beneficiaries as of June 30, 2015. We checked for internal and year-to-year consistency, but did not otherwise audit the data. We are not responsible for the accuracy or completeness of the data provided by NHRS.

We prepared the following supporting schedules for the Comprehensive Annual Financial Report for the System’s use in the Actuarial Section, the Statistical Section, Notes to the Financial Statements and Required Supplementary Information:

- Summary of Actuarial Assumptions and Methods
 - Percent Retiring Within Next Year
 - Probabilities of Becoming Disabled Within Next Year
 - Percent Separating Within Next Year
 - Individual Employee Pay Increases
- Retirees and Beneficiaries Age Distribution
- Active Members by Valuation Division
- Active Members Age and Service Distribution

- Historical Membership Data – Active and Retired
- Summary of Membership Data by Category
- Schedule of Average Benefit Payment Amounts
- Schedule of Retired and Vested Members by Type of Benefit
- Schedule of Funding Progress – Other Post Employment Benefits (OPEB)
- Solvency Test
- Schedule of Employer Contributions – Pension and OPEB
- Schedule of Changes in the Employers’ Net Pension Liability and Related Ratios – Pension Plan
- Sensitivity of Net Pension Liability to the Single Discount Rate Assumption

Information in historical schedules prior to June 30, 2007 was provided by the previous actuary.

The schedules include information regarding plan funding under the New Hampshire Statute RSA 100-A:16. The basic financial objective of the New Hampshire Retirement System (NHRS) is to establish and receive pension contributions which:

- when expressed in terms of percents of active member payroll will remain approximately level from generation to generation; and
- when combined with present assets and future investment return will be sufficient to meet the financial obligations of NHRS to present and future retirees and beneficiaries.

The financial objective for medical subsidy benefits under RSA 100-A:53, 53-a, 53-b and 53-c is to contribute the lesser of 25 percent of the total employer contribution or the minimum amount necessary to maintain the benefit. The financial objectives are addressed within the biennial actuarial valuation. The valuation process develops pension contribution rates that are sufficient to fund the plan’s current pension cost (i.e., the costs assigned by the valuation method to the year of service about to be rendered), as well as to fund pension unfunded actuarial accrued liabilities as a level percent of active member payroll over a closed 30-year period beginning with the fiscal year ending June 30, 2010.

The actuarial calculations for funding purposes as of June 30, 2015 in this report are based on the assumptions used in the June 30, 2014 valuation and the census information as of June 30, 2015. The actuarial accrued liability as of June 30, 2015 differs from the total pension liability as of June 30, 2015 under GASB No. 67 because the total pension liability is based on a roll-forward of the June 30, 2014 actuarial valuation under the System’s accounting procedures.

The system is undergoing a 5-year experience study to review the actuarial assumptions used in the valuation and for financial reporting purposes. The experience study is scheduled to be completed after this report is finalized. Any new assumptions adopted by the Board of Trustees will be used for the final June 30, 2015 funding valuation to determine employer contribution rates for the 2018-2019 biennium. The final June 30, 2015 actuarial valuation will be issued in a separate report after the completion of the experience study. Results may change from what is presented in this report.

For funding purposes, assets are valued on a market related basis that recognizes each year's difference between actual and assumed investment return over a closed five-year period. For GASB No. 67 purposes, assets are reported and used on a market basis.

The valuation results summarized in this report involve actuarial calculations that require assumptions about future events. The actuarial assumptions are established by the Board after consulting with the actuary under New Hampshire Statute RSA 100-A:14 IX. We believe that the assumptions and methods used in this report are reasonable and appropriate for the purposes for which they have been used. However, other assumptions and methods could also be reasonable and could result in materially different results. In addition, because it is not possible or practical to consider every possible contingency, we may use summary information, estimates or simplifications of calculations to facilitate the modeling of future events. We may also exclude factors or data that are deemed to be immaterial. The actuarial funding method is the Individual Entry Age Actuarial Cost Method, in compliance with NHRS State Statutes. The assumptions and the methods comply with the requirements of Statements No. 67 and No. 43 of the Governmental Accounting Standards Board. Each actuarial valuation takes into account all prior differences between actual and assumed experience in each risk area and adjusts the contribution rates as needed. Actuarial methods and assumptions were adopted by the Board pursuant to the June 30, 2010 Experience Study.

We certify that the information contained in this June 30, 2015 accounting report of the NHRS is accurate and fairly presents the actuarial position of the New Hampshire Retirement System as of June 30, 2015 under the current actuarial assumptions. All calculations have been made in conformity with generally accepted actuarial principles and practices, with the Actuarial Standards of Practice issued by the Actuarial Standards Board and with applicable statutes RSA 100-A:16, 100-A:53, 100-A:53-b, 100-A:53-c, 100-A:53-d and 100-A:53-e.

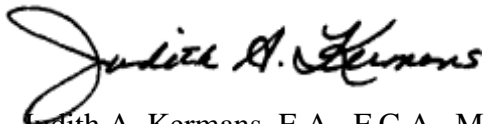
Future actuarial measurements may differ significantly from the current measurements presented in this report due to such factors as the following: plan experience differing from that anticipated by the economic or demographic assumptions; changes in economic or demographic assumptions; increases or decreases expected as part of the natural operation of the methodology used for these measurements (such as the end of an amortization period or additional cost or contribution requirements based on the plan's funded status); and changes in plan provisions or applicable law.

The actuaries submitting this report are independent of the plan sponsor, are Members of the American Academy of Actuaries (M.A.A.A.), and meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinions contained herein.

Respectfully submitted,



David T. Kausch, F.S.A., E.A., M.A.A.A.



Judith A. Kermans, E.A., F.C.A., M.A.A.A.



Heidi G. Barry, A.S.A., M.A.A.A.

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SECTION A
INTRODUCTION

Executive Summary Pension

Covered Group	Employees	Teachers	Police	Fire	Total
I. Number of Participants as of June 30, 2015					
a. Actives	24,298	17,732	4,174	1,608	47,812
b. Retirees, Disabilities, and Beneficiaries	15,483	10,859	3,457	1,551	31,350
c. Vested Terminations	1,065	822	98	14	1,999
d. Non-Vested Inactive Terminations	5,522	2,747	381	40	8,690
e. Total	46,368	32,160	8,110	3,213	89,851
f. Total Covered Annual Payroll	\$ 1,127,765,949	\$ 1,050,447,092	\$ 279,554,726	\$ 117,263,443	\$ 2,575,031,210
II. GASB No. 67 Information					
a. Total Pension Liability (TPL)					\$11,471,453,542
b. Plan Fiduciary Net Position (PFNP)					7,509,926,452
c. Net Pension Liability (NPL): a. – b.					3,961,527,090
d. PFNP as a Percentage of TPL: b. / a.					65.5%
III. Statutory Funding Information					
a. Actuarial Present Value of Projected Benefits	\$ 4,562,859,560	\$ 5,100,882,420	\$ 2,463,913,396	\$1,192,549,819	\$13,320,205,195
b. Actuarial Present Value of Future Normal Costs	698,310,249	661,271,467	304,305,837	167,704,261	1,831,591,814
c. Actuarial Accrued Liability (AAL): a. – b.	3,864,549,311	4,439,610,953	2,159,607,559	1,024,845,558	11,488,613,381
d. Actuarial Value of Assets	2,403,294,028	2,682,082,500	1,477,516,730	717,867,354	7,280,760,612
e. Unfunded Actuarial Accrued Liability (UAAL): c. – d.	1,461,255,283	1,757,528,453	682,090,829	306,978,204	4,207,852,769
f. Funded Status: d. / c.	62.2%	60.4%	68.4%	70.0%	63.4%
IV. Additional Information on Payroll					
State	\$ 518,140,590	\$ -	\$ 74,656,117	\$ 3,756,009	\$ 596,552,716
Political Subdivisions	609,625,359	1,050,447,092	204,898,609	113,507,434	1,978,478,494
Total	\$ 1,127,765,949	\$ 1,050,447,092	\$ 279,554,726	\$ 117,263,443	\$ 2,575,031,210

NOTE: GASB 67 TPL is based on a roll-forward of the June 30, 2014 valuation. Statutory Funding information is based on data/information provided as of June 30, 2015.

Executive Summary Medical Subsidy

Covered Group	State Employees	Political Subdivision Employees	Teachers	Police and Fire	Grand Total
I. Number of Participants Covered by Post Retirement Medical Subsidy as of June 30, 2015					
a. Actives	-	-	-	3,056	3,056
b. Retirees, Disabilities, and Beneficiaries	1,864	1,272	4,411	2,718	10,265
c. Vested Terminations	-	-	-	-	-
d. Total	1,864	1,272	4,411	5,774	13,321
e. Total NHRS Covered Annual Payroll	\$ 518,140,590	\$ 609,625,359	\$ 1,050,447,092	\$ 396,818,169	\$ 2,575,031,210
II. GASB No. 43 and Statutory Funding Information					
a. Actuarial Present Value of Projected Benefits	\$ 73,716,017	\$ 58,609,246	\$ 229,403,736	\$ 325,692,492	\$ 687,421,491
b. Actuarial Present Value of Future Normal Costs	-	-	-	11,758,816	11,758,816
c. Actuarial Accrued Liability (AAL): a. – b.	73,716,017	58,609,246	229,403,736	313,933,676	675,662,675
d. Valuation Assets	552,803	21,961,455	(13,305,221)	10,306,442	19,515,479
e. Unfunded Actuarial Accrued Liability (UAAL): c. – d.	73,163,214	36,647,791	242,708,957	303,627,234	656,147,196
f. Funded Status: d. / c.	0.7%	37.5%	(5.8%)	3.3%	2.9%

Discussion and Comments

Comment 1:

In total, plan experience between June 30, 2014 and June 30, 2015 was unfavorable for pension on the basis of GASB No. 67 and favorable for pension and the medical subsidy on the basis of statutory funding.

The dollar weighted rate of return for the year ending June 30, 2015 was 3.41% on the market value of assets (Note: This dollar weighted measure may differ from investment manager calculations and should not be used as a measure of investment performance).

The impact on GASB No. 67 was a decrease in the ratio of plan fiduciary net position to total pension liability from 66.3% to 65.5%. See pages 7 and 8 for additional plan fiduciary net position information and page 9 for the impact on the net pension liability.

On the basis of statutory funding, the rate of return was 10.72% on the actuarial value of assets, resulting in a recognized asset gain of \$198 million (pension and medical subsidy combined). The return on the actuarial value of assets exceeds the return on the market value of assets because some of this year's low market return is deferred and prior years' high returns are recognized this year.

The Market Value of Assets of the System of \$7.53 billion is greater than the Actuarial Value of Assets of \$7.30 billion by \$230 million as of the valuation date (see page 24). This difference will be gradually recognized over the next four years in the absence of future gains/losses.

Overall, the System had a gain of \$204 million comprised of an asset gain of \$198 million and a liability gain of \$6 million.

Total covered payroll increased by 2.68% versus the assumed increase of 3.75%. Between the 2014 and 2015 valuation, the pension funded ratio increased by 2.7% from 60.7% to 63.4%.

Please see pages 24 and 25 for additional asset information for statutory funding purposes.

Comment 2:

In June 2012, the Governmental Accounting Standards Board (GASB) issued new pension Accounting Standards No. 67 and No. 68 for retirement systems and sponsoring governmental entities respectively. The effective date is the first fiscal year following June 15, 2013 for plan disclosures and the first fiscal year following June 15, 2014 for Employer disclosures.

The steps in this implementation process are as follows:

- This report includes GASB No. 67 information for the plan's fiscal year ending June 30, 2015. This includes the determination of the GASB discount rate for the plan as a whole.
- Based on our discussion with NHRS staff, the participating employers have fiscal years ending June 30th, September 30th or December 31st. Under the GASB rules, employers with a fiscal year ending September 30, 2015, December 31, 2015 or June 30, 2016 may use a measurement date as of June 30, 2015.

Discussion and Comments (Continued)

- The June 30, 2015 GASB No. 68 disclosures will be issued in a separate report in January 2016 to allow sufficient time to finalize employer financial reports. This report will include proportionate shares of the Net Pension Liability, Pension Expense, and Deferred Inflows and Outflows for all participating employers.
- The GASB has issued exposure drafts for OPEB valuations similar to the new pension standards. GASB Statement No. 74 for the plan OPEB disclosures must be adopted no later than the June 30, 2017 fiscal year. GASB Statement No. 75 for employer OPEB disclosures (which will include similar proportionate share calculations) is effective for employer fiscal years beginning after June 15, 2017.

Comment 3:

The System is currently undergoing an experience study for the 5-year period ending June 30, 2015. It is our understanding that the final contribution rates for Fiscal Year 2018 and Fiscal Year 2019 will be set following the conclusion and acceptance by the Board of the Fiscal Year 2015 valuation, which will include: (a) plan experience for the 2015 Fiscal Year, and (b) revised actuarial assumptions developed following the conclusion of a five-year experience study which will begin later this calendar year and which will be incorporated into the Fiscal Year 2015 valuation report.

This report includes 2015 actuarial valuation results which may change after the experience study.

Comment 4:

NHRS underwent a data clean-up effort. The June 30, 2015 census data includes a change for retiree data. Previously, the Plan ID for individual retiree records was based on the last Plan ID information in the employee's history. In many cases, this differed from the last Plan ID in the benefit summary tab. NHRS has indicated the information in the benefit summary tab more accurately reflects which member classification applies. As a result, certain retirees were reclassified and the estimated impact is shown in this report. We used the data as submitted without further audit.

Comment 5:

NHRS is supported by member contributions, employer contributions, and net earnings on the investments of the fund. The member contribution rate is set by statute at 7.00% of member compensation for Group I Members (Employees and Teachers), 11.55% of member compensation for Police Members and 11.80% of member compensation for Fire Members. The employer contributions are determined in accordance with statute by an actuarial valuation. Legislation was enacted in 2007 which requires the use of the entry-age actuarial cost method and a closed 30-year amortization of unfunded actuarial accrued liability in the determination of the employer contributions. The amortization period is 22 years for Fiscal Year 2018 and 21 years for Fiscal Year 2019.

The closed amortization period means that the unfunded actuarial accrued liability is expected to be fully paid off by June 30, 2039 if all assumptions are met. It is important to note that the current amortization period is expected to result in "negative amortization", meaning that the UAAL is expected to increase in nominal (but not real) dollars for the next few years.

Results of the Valuation

This report provides information in connection with Governmental Accounting Standards Board Statement No. 43 (GASB No. 43), and it provides summaries of the member data, financial data, plan provisions, and actuarial assumptions and methods. This report also provides information for GASB No. 67.

Calculations required for compliance with the Governmental Accounting Standards Board (GASB) Statement No. 68 will be issued in a separate report.

Valuations for certifying contribution rates are prepared biennially, as of June 30 on the odd numbered years (2015, 2017, etc.). As mentioned in Comment 3, the June 30, 2015 actuarial valuation will establish the Fiscal Year 2018 and Fiscal Year 2019 employer contribution rates. It is our understanding that the final contribution rates for those years will be set following the conclusion and acceptance by the Board of the Fiscal Year 2015 valuation, which will include: (a) plan experience for the 2015 Fiscal Year, and (b) revised actuarial assumptions developed following the conclusion of a five-year experience study which will begin later this calendar year and which will be incorporated into the Fiscal Year 2015 valuation report. The final Fiscal Year 2018 and Fiscal Year 2019 rates may be higher or lower than the Fiscal Year 2016 and Fiscal Year 2017 rates currently in effect.

SECTION B

FINANCIAL SECTION

Measurement of the Net Pension Liability

The net pension liability is measured as the total pension liability, less the amount of the pension plan’s fiduciary net position. In actuarial terms, this will be the accrued liability less the market value of assets (not the smoothed actuarial value of assets that is often encountered in actuarial valuations performed to determine the employer’s contribution requirement).

The total pension liability shown in this report is based on an actuarial valuation performed as of June 30, 2014 rolled forward to the measurement date of June 30, 2015. The roll forward procedure increases the June 30, 2014 actuarial accrued liability with normal cost and interest and decreases it with actual benefit payments and administrative expenses paid.

A single discount rate of 7.75% was used to measure the total pension liability. This single discount rate was based on the expected rate of return on pension plan investments of 7.75%. The projection of cash flows, shown in the Appendix, used to determine this single discount rate assumed that employer contributions will be made under the current statute RSA 100-A:16 and that plan member contributions will be made under RSA 100-A:16. Based on these assumptions, the pension plan’s fiduciary net position was projected to be sufficient to make all projected future benefit payments due to 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.

Below is a table providing the sensitivity of the net pension liability to changes in the discount rate. In particular, the table presents the plan’s net pension liability calculated using a single discount rate that is 1-percentage-point lower or 1-percentage-point higher than the current single discount rate:

Sensitivity of the Net Pension Liability to the Single Discount Rate Assumption

Measurement Date June 30	1% Decrease 6.75%	Current Single Rate Assumption 7.75%	1% Increase 8.75%
2013	\$5,517,542,052	\$4,303,784,472	\$3,283,507,050
2014	\$4,944,083,125	\$3,753,585,752	\$2,749,222,899
2015	\$5,214,835,524	\$3,961,527,090	\$2,893,074,359

Statement of Fiduciary Net Position
as of June 30, 2015

	2015*
Assets	
Cash and Deposits	\$ 5,260,641
Receivables	
Accounts Receivable - Sale of Investments	\$ 10,795,936
Interest and Dividend Receivables	17,401,597
Contributions	61,645,383
Accounts Receivable - Other	2,519,272
Total Receivables	\$ 92,362,188
Investments	
Fixed Income	\$ 1,658,608,474
Domestic Equities	2,974,898,902
International Equities	1,234,176,404
Real Estate	674,778,642
Other	898,245,290
Total Investments	\$ 7,440,707,712
Total Assets	\$ 7,538,330,541
 Liabilities	
Payables	
Accounts Payable - Purchase of Investments	\$ 19,349,054
Accrued Expenses	9,055,035
Total Liabilities	\$ 28,404,089
 Net Position Restricted for Pensions	 \$ 7,509,926,452

* Reported amount provided by the System as of June 30, 2015 do not include the 401(h) medical subsidy account.

Statement of Changes in Fiduciary Net Position
for Year Ended June 30, 2015

	Total
Additions	
Contributions	
Employer	\$ 332,294,226
Member	204,063,168
Total Contributions	\$ 536,357,394
Investment Income	
Net Appreciation in Fair Value of Investments	\$ 122,965,738
Interest and Dividends	151,534,414
Less Investment Expense	(24,695,198)
Net Investment Income	\$ 249,804,954
Total Additions	\$ 786,162,348
 Deductions	
Benefit Payments and Refunds	\$ 657,655,736
Pension Plan Administrative Expense	7,581,315
Other custodial, professional and non-investment expenses	1,626,866
Total Deductions	\$ 666,863,917
Net Increase in Net Position	\$ 119,298,431
 Net Position Restricted for Pensions	
Beginning of Year	\$ 7,390,628,021
End of Year	\$ 7,509,926,452

Schedules of Required Supplementary Information
 Schedule of Changes in the Employers' Net Pension Liability and
 Related Ratios
 Ultimately 10 Fiscal Years will be Displayed

Fiscal Year Ending	<u>June 30, 2015</u>	<u>June 30, 2014</u>	<u>June 30, 2013</u>
Total Pension Liability			
Service Cost	\$ 243,964,955	\$ 245,827,165	\$ 255,178,452
Interest on the Total Pension Liability	847,646,050	815,213,536	789,791,575
Benefit Changes	-	-	-
Difference between expected and actual experience of the Total Pension Liability	(106,715,500)	-	(101,140,741)
Assumption Changes	-	-	-
Benefit Payments	(631,310,997)	(599,475,606)	(573,470,316)
Refunds	(26,344,739)	(26,119,759)	(23,190,984)
Net Change in Total Pension Liability	\$ 327,239,769	\$ 435,445,336	\$ 347,167,986
Total Pension Liability - Beginning	\$ 11,144,213,773	\$ 10,708,768,437	\$ 10,361,600,451
Total Pension Liability - Ending (a)	\$ 11,471,453,542	\$ 11,144,213,773	\$ 10,708,768,437
Plan Fiduciary Net Position			
Contributions - Employer	\$ 332,294,226	\$ 328,444,256	\$ 249,835,597
Contributions - Member	204,063,168	199,032,996	196,488,619
Pension Plan Net Investment Income	249,804,954	1,092,585,321	813,797,720
Benefit Payments	(631,310,997)	(599,475,606)	(573,470,316)
Refunds	(26,344,739)	(26,119,759)	(23,190,984)
Pension Plan Administrative Expense	(7,581,315)	(7,376,270)	(6,998,526)
Other custodial, professional and non-investment expenses, and contributions other than for contribution effort	(1,626,866)	(1,446,882)	(1,804,939)
Net Change in Plan Fiduciary Net Position	\$ 119,298,431	\$ 985,644,056	\$ 654,657,171
Plan Fiduciary Net Position - Beginning	\$ 7,390,628,021	\$ 6,404,983,965	\$ 5,750,326,794
Plan Fiduciary Net Position - Ending (b)	\$ 7,509,926,452	\$ 7,390,628,021	\$ 6,404,983,965
Net Pension Liability - Ending (a) - (b)	\$ 3,961,527,090	\$ 3,753,585,752	\$ 4,303,784,472
Plan Fiduciary Net Position as a Percentage of Total Pension Liability	65.47 %	66.32 %	59.81 %
Covered Employee Payroll*	\$2,575,031,210	\$ 2,507,898,809	\$ 2,501,741,708
Net Pension Liability as a Percentage of Covered Employee Payroll	153.84 %	149.67 %	172.03 %
Notes to Schedule:			

* Based on the June 30 census data for the applicable fiscal year. Covered employee payroll for employer's disclosure may differ.

Schedules of Required Supplementary Information
 Schedule of the Employers' Net Pension Liability
 Ultimately 10 Fiscal Years will be Displayed

FY Ending June 30,	Total Pension Liability	Plan Net Position	Net Pension Liability	Plan Net Position as a % of Total Pension Liability	Covered Payroll*	Net Pension Liability as a % of Covered Payroll
2013	\$ 10,708,768,437	\$ 6,404,983,965	\$ 4,303,784,472	59.81%	\$ 2,501,741,708	172.03%
2014	\$ 11,144,213,773	\$ 7,390,628,021	\$ 3,753,585,752	66.32%	\$ 2,507,898,809	149.67%
2015	\$ 11,471,453,542	\$ 7,509,926,452	\$ 3,961,527,090	65.47%	\$ 2,575,031,210	153.84%

* Based on the June 30 census data. Covered employee payroll for employer's disclosure may differ.

Schedule of Employer Contributions
Ultimately 10 Fiscal Years will be Displayed

FY Ending June 30,	Actuarially Determined Contribution**	Actual Contribution#	Contribution Deficiency (Excess)	Covered Payroll*	Actual Contribution as a % of Covered Payroll
2013	\$ 249,835,597	\$ 249,835,597	\$ -	\$ 2,501,741,708	9.99%
2014	\$ 328,444,256	\$ 328,444,256	\$ -	\$ 2,507,898,809	13.10%
2015	\$ 332,294,226	\$ 332,294,226	\$ -	\$ 2,575,031,210	12.90%

* Based on the June 30 census data. Covered employee payroll for employer's disclosure may differ.

** We do not compute a dollar amount for the Actuarial Determined Contribution. It is our understanding that employers contribute the Actuarially Determined Contribution. The amount shown in this column therefore matches the actual contributions. Contributions other than the Actuarial Determined Contributions are accounted for separately.

Notes to Schedule of Contributions

Valuation Date: Actuarially determined contribution rates for the 2012-2013 biennium were determined based on the June 30, 2009 actuarial valuation. Actuarial determined contribution rates for the 2014-2015 biennium were determined based on the June 30, 2011 actuarial valuation. Actuarial determined contribution rates for the 2016-2017 biennium were determined based on the June 30, 2013 actuarial valuation. Future employer contribution rates for the purposes of the projection in this report are based on the closed statutory amortization period.

Notes The roll-forward of total pension liability from June 30, 2014 to June 30, 2015 reflects expected service cost and interest reduced by actual benefit payments.

Methods and Assumptions Used to Determine Contribution Rates for Fiscal Year 2015:

Actuarial Cost Method	Entry-Age Normal
Amortization Method	Level Percentage-of-Payroll, Closed
Remaining Amortization Period	24 years beginning July 1, 2015 (30 years beginning July 1, 2009)
Asset Valuation Method	5-year smoothed market for funding purposes
Price Inflation	3.0% per year
Wage Inflation	3.75% per year
Salary Increases	5.8% Average, including inflation
Municipal Bond Rate	3.80% per year
Investment Rate of Return	7.75% per year
Retirement Age	Experience-based table of rates that are specific to the type of eligibility condition. Last updated for the 2011 valuation pursuant to an experience study of the period 2005 - 2010.
Mortality	RP-2000 mortality table, projected to 2020 with Scale AA. The table includes a margin of 15% for men and 17% for women for mortality improvements, based on the last experience study.

Other Information:

Notes Contribution rates for Fiscal Year 2015 were determined based on the benefit changes adopted under House Bill No. 2 as amended by 011-2513-CofC.

NOTE: A full list of actuarial assumptions and the summary of benefit provisions can be found starting on page 39.

Summary of Population Statistics as of June 30, 2014

For purposes of GASB No. 67 disclosures, the System has adopted a roll-forward methodology for accounting purposes. This means that the June 30, 2015 Total Pension Liability is based on a roll-forward of the June 30, 2014 valuation. A brief summary of the June 30, 2014 census data is shown below.

Inactive Plan Members or Beneficiaries Currently Receiving Benefits	31,054
Inactive Plan Members Entitled to But Not Yet Receiving Benefits	1,297
Active Plan Members	48,307
Non-Vested Inactive Members	<u>8,102</u>
Total Plan Members	88,760

Additional information regarding the covered population as of June 30, 2014 may be found in the actuarial valuation report issued April 30, 2015.

All plan provisions, actuarial assumptions and methods are described in the June 30, 2014 actuarial valuation report.

Calculation of the Single Discount Rate

GASB Statement No. 67 includes a specific requirement for the discount rate that is used for the purpose of the measurement of the Total Pension Liability. This rate considers the ability of the fund to meet benefit obligations in the future. To make this determination, employer contributions, employee contributions, benefit payments, expenses and investment returns are projected into the future. The Plan Net Position (assets) in future years can then be determined and compared to its obligation to make benefit payments in those years. As long as assets are projected to be on hand in a future year, the assumed valuation discount rate is used. In years where assets are not projected to be sufficient to meet benefit payments, the use of a municipal bond rate is required, as described in the following paragraph.

The *Single Discount Rate* (SDR) is equivalent to applying these two rates to the benefits that are projected to be paid during the different time periods. The SDR reflects (1) the long-term expected rate of return on pension plan investments (during the period in which the fiduciary net position is projected to be sufficient to pay benefits) and (2) tax-exempt municipal bond rate based on an index of 20-year general obligation bonds with an average AA credit rating as of the measurement date (to the extent that the plan fiduciary net position is not projected to be sufficient to pay benefits).

The determination of the discount rate is done at the plan level. Our understanding is that all pension assets are available to pay the pension benefits of the four member classifications so there is one plan for the discount rate calculation. For the purpose of this valuation, the expected rate of return on pension plan investments is 7.75%; the municipal bond rate is 3.80% (based on the June 2015 Bond Buyer Index as published by the Federal Reserve); and the resulting single discount rate is 7.75%.

The tables in this section provide background for the development of the single discount rate.

The **Projection of Contributions** table shows the development of expected contributions in future years. Service Cost contributions for future hires after June 30, 2015 are not included (nor are their liabilities).

The **Projection of Plan Fiduciary Net Position** table shows the development of expected asset levels in future years after June 30, 2015.

The **Present Values of Projected Benefit Payments** table shows the development of the Single Discount Rate (SDR). It breaks down the benefit payments into present values for funded and unfunded portions and shows the equivalent total at the SDR.

Single Discount Rate Development

Projection of Contributions Beginning July 1, 2015

(Years 1-50 only)

Year	Payroll for Current Employees	Contributions from Current Employees	Employer Service Cost and Expense Contributions	UAL Contributions	Total Contributions
0	\$ 2,575,031,210				
1	2,557,888,331	\$ 182,761,651	\$ 54,752,962	\$ 299,570,851	\$ 537,085,464
2	2,451,074,143	175,159,467	50,799,069	310,804,758	536,763,294
3	2,351,460,634	168,057,729	46,971,373	267,855,434	482,884,536
4	2,256,291,487	161,230,822	43,275,746	277,900,013	482,406,581
5	2,161,922,676	154,420,928	39,652,420	288,321,264	482,394,611
6	2,067,183,575	147,546,193	36,073,331	299,133,311	482,752,835
7	1,972,262,194	140,659,906	32,606,824	310,350,810	483,617,540
8	1,878,031,845	133,858,865	29,348,923	321,988,966	485,196,754
9	1,785,267,570	127,152,462	26,289,559	334,063,552	487,505,573
10	1,692,632,824	120,455,618	23,391,561	346,590,935	490,438,114
11	1,601,025,488	113,854,623	20,681,719	359,588,095	494,124,438
12	1,510,424,783	107,324,093	18,149,315	373,072,649	498,546,057
13	1,420,581,529	100,855,931	15,786,868	387,062,873	503,705,672
14	1,332,480,511	94,534,477	13,621,757	401,577,731	509,733,965
15	1,244,292,551	88,194,053	11,580,547	416,636,896	516,411,496
16	1,157,106,527	81,907,039	9,692,816	432,260,779	523,860,635
17	1,072,797,379	75,831,028	8,003,441	448,470,559	532,305,028
18	990,424,409	69,892,972	6,489,522	465,288,204	541,670,699
19	908,465,778	63,988,048	5,122,874	482,736,512	551,847,435
20	828,693,347	58,228,763	3,930,780	500,839,131	562,998,674
21	751,167,066	52,643,040	2,907,976	519,620,599	575,171,615
22	675,704,740	47,200,643	2,039,670	539,106,371	588,346,685
23	602,310,452	41,858,732	1,311,523	594,197,980	637,368,235
24	531,770,421	36,702,578	719,709	616,480,404	653,902,691
25	464,358,757	31,800,430	240,160	-	32,040,589
26	401,804,157	27,298,878	(124,366)	-	27,174,512
27	344,830,770	23,221,373	(355,490)	-	22,865,883
28	294,029,945	19,452,029	(307,915)	-	19,144,113
29	249,037,953	16,212,712	(272,380)	-	15,940,333
30	210,155,416	13,479,718	(245,750)	-	13,233,968
31	176,520,199	11,160,626	(221,873)	-	10,938,753
32	147,337,112	9,185,773	(198,379)	-	8,987,394
33	121,443,921	7,467,586	(171,834)	-	7,295,752
34	98,409,443	5,967,069	(143,214)	-	5,823,856
35	78,366,846	4,689,134	(113,825)	-	4,575,309
36	60,960,508	3,601,352	(87,379)	-	3,513,973
37	46,376,684	2,705,307	(66,389)	-	2,638,918
38	34,145,942	1,964,737	(44,992)	-	1,919,745
39	24,096,759	1,367,337	(27,127)	-	1,340,210
40	16,168,560	902,253	(12,302)	-	889,951
41	10,338,399	568,242	(6,832)	-	561,410
42	6,454,140	348,308	(3,719)	-	344,588
43	4,015,309	212,053	(1,754)	-	210,299
44	2,381,240	122,954	(122)	-	122,832
45	1,306,979	66,038	598	-	66,636
46	656,068	32,688	335	-	33,023
47	321,858	15,951	(26)	-	15,925
48	155,895	7,526	(5)	-	7,521
49	65,645	3,136	10	-	3,146
50	20,992	1,024	(32)	-	992

Future service cost and expense contributions may appear negative in this projection because expected member contributions for current members may be larger than service cost and expenses. Actual employer service cost and expense contributions will not be negative.

Single Discount Rate Development

Projection of Plan Fiduciary Net Position Beginning July 1, 2015 (Years 1-50)

Year	Projected	Projected Total	Projected Benefit	Projected	Projected	Projected Ending Plan
	Beginning Plan			Administrative	Investment	
	Net Position	Contributions	Payments	Expenses	Earnings at	Net Position
	(a)	(b)	(c)	(d)	7.75%	(f)=(a)+(b)-(c)-(d)+(e)
1	\$ 7,509,926,452	\$ 537,085,464	\$ 718,967,279	\$ 8,952,609	\$ 574,762,444	\$ 7,893,854,472
2	7,893,854,472	536,763,294	757,028,763	8,578,759	603,071,468	8,268,081,713
3	8,268,081,713	482,884,536	794,158,296	8,230,112	628,626,567	8,577,204,409
4	8,577,204,409	482,406,581	832,867,553	7,897,020	651,106,071	8,869,952,488
5	8,869,952,488	482,394,611	872,429,056	7,566,729	672,301,748	9,144,653,063
6	9,144,653,063	482,752,835	911,976,192	7,235,143	692,113,416	9,400,307,979
7	9,400,307,979	483,617,540	950,248,399	6,902,918	710,516,812	9,637,291,014
8	9,637,291,014	485,196,754	986,969,522	6,573,111	727,559,198	9,856,504,333
9	9,856,504,333	487,505,573	1,022,485,201	6,248,436	743,297,820	10,058,574,089
10	10,058,574,089	490,438,114	1,058,310,985	5,924,215	757,719,725	10,242,496,729
11	10,242,496,729	494,124,438	1,091,611,487	5,603,589	770,859,784	10,410,265,875
12	10,410,265,875	498,546,057	1,123,235,050	5,286,487	782,839,544	10,563,129,938
13	10,563,129,938	503,705,672	1,152,500,641	4,972,035	793,781,789	10,703,144,723
14	10,703,144,723	509,733,965	1,179,149,849	4,663,682	803,860,510	10,832,925,667
15	10,832,925,667	516,411,496	1,205,075,295	4,355,024	813,198,330	10,953,105,173
16	10,953,105,173	523,860,635	1,228,987,955	4,049,873	821,897,788	11,065,825,768
17	11,065,825,768	532,305,028	1,250,261,119	3,754,791	830,157,016	11,174,271,902
18	11,174,271,902	541,670,699	1,268,914,912	3,466,485	838,219,355	11,281,780,559
19	11,281,780,559	551,847,435	1,284,968,778	3,179,630	846,338,695	11,391,818,281
20	11,391,818,281	562,998,674	1,297,300,204	2,900,427	854,832,357	11,509,448,681
21	11,509,448,681	575,171,615	1,305,764,394	2,629,085	864,100,064	11,640,326,881
22	11,640,326,881	588,346,685	1,310,815,408	2,364,967	874,562,101	11,790,055,291
23	11,790,055,291	637,368,235	1,313,141,071	2,108,087	887,951,524	12,000,125,893
24	12,000,125,893	653,902,691	1,311,828,163	1,861,196	904,920,066	12,245,259,291
25	12,245,259,291	32,040,589	1,306,474,174	1,625,256	900,482,938	11,869,683,388
26	11,869,683,388	27,174,512	1,296,999,407	1,406,315	871,559,386	11,470,011,564
27	11,470,011,564	22,865,883	1,282,739,357	1,206,908	840,970,825	11,049,902,007
28	11,049,902,007	19,144,113	1,263,802,424	1,029,105	808,997,682	10,613,212,273
29	10,613,212,273	15,940,333	1,240,266,709	871,633	775,933,378	10,163,947,641
30	10,163,947,641	13,233,968	1,212,802,551	735,544	742,062,008	9,705,705,521
31	9,705,705,521	10,938,753	1,181,502,110	617,821	707,655,701	9,242,180,044
32	9,242,180,044	8,987,394	1,146,955,194	515,680	672,975,871	8,776,672,434
33	8,776,672,434	7,295,752	1,109,939,650	425,054	638,245,739	8,311,849,221
34	8,311,849,221	5,823,856	1,070,735,414	344,433	603,659,852	7,850,253,082
35	7,850,253,082	4,575,309	1,030,192,737	274,284	569,383,056	7,393,744,426
36	7,393,744,426	3,513,973	988,861,301	213,362	535,537,302	6,943,721,038
37	6,943,721,038	2,638,918	947,000,737	162,318	502,220,985	6,501,417,886
38	6,501,417,886	1,919,745	905,316,920	119,511	469,501,880	6,067,403,081
39	6,067,403,081	1,340,210	863,781,135	84,339	437,424,512	5,642,302,330
40	5,642,302,330	889,951	821,961,429	56,590	406,053,414	5,227,227,676
41	5,227,227,676	561,410	778,776,611	36,184	375,515,599	4,824,491,890
42	4,824,491,890	344,588	734,154,521	22,589	345,992,691	4,436,652,059
43	4,436,652,059	210,299	689,193,427	14,054	317,640,056	4,065,294,933
44	4,065,294,933	122,832	644,765,294	8,334	290,546,238	3,711,190,375
45	3,711,190,375	66,636	601,053,748	4,574	264,763,358	3,374,962,048
46	3,374,962,048	33,023	558,285,760	2,296	240,330,809	3,057,037,823
47	3,057,037,823	15,925	516,666,763	1,127	217,273,720	2,757,659,578
48	2,757,659,578	7,521	476,433,471	546	195,601,559	2,476,834,641
49	2,476,834,641	3,146	437,715,161	230	175,309,812	2,214,432,208
50	2,214,432,208	992	400,578,023	73	156,385,761	1,970,240,865

Single Discount Rate Development

Projection of Plan Fiduciary Net Position Beginning July 1, 2015 (Years 51-100)

Year	Projected Beginning Plan Net Position	Projected Total Contributions	Projected Benefit Payments	Projected Administrative Expenses	Projected Investment Earnings at 7.75%	Projected Ending Plan Net Position
	(a)	(b)	(c)	(d)	(e)	(f)=(a)+(b)-(c)-(d)+(e)
51	\$ 1,970,240,865	\$ 149	\$ 365,074,574	\$ 11	\$ 138,810,991	\$ 1,743,977,419
52	1,743,977,419	7	331,245,509	-	122,561,986	1,535,293,903
53	1,535,293,903	-	299,126,107	-	107,610,417	1,343,778,212
54	1,343,778,212	-	268,746,956	-	93,923,178	1,168,954,434
55	1,168,954,434	-	240,133,628	-	81,462,413	1,010,283,219
56	1,010,283,219	-	213,306,260	-	70,185,558	867,162,517
57	867,162,517	-	188,278,868	-	60,045,419	738,929,069
58	738,929,069	-	165,059,435	-	50,990,292	624,859,925
59	624,859,925	-	143,650,966	-	42,964,033	524,172,992
60	524,172,992	-	124,047,595	-	35,906,252	436,031,649
61	436,031,649	-	106,232,677	-	29,752,745	359,551,717
62	359,551,717	-	90,178,295	-	24,436,050	293,809,473
63	293,809,473	-	75,843,016	-	19,886,154	237,852,611
64	237,852,611	-	63,169,694	-	16,031,425	190,714,341
65	190,714,341	-	52,085,042	-	12,799,725	151,429,024
66	151,429,024	-	42,499,666	-	10,119,616	119,048,974
67	119,048,974	-	34,309,835	-	7,921,596	92,660,736
68	92,660,736	-	27,399,220	-	6,139,298	71,400,814
69	71,400,814	-	21,642,122	-	4,710,579	54,469,270
70	54,469,270	-	16,908,519	-	3,578,389	41,139,139
71	41,139,139	-	13,067,539	-	2,691,364	30,762,965
72	30,762,965	-	9,990,869	-	2,004,207	22,776,303
73	22,776,303	-	7,557,654	-	1,477,769	16,696,417
74	16,696,417	-	5,657,423	-	1,078,838	12,117,832
75	12,117,832	-	4,191,477	-	779,743	8,706,097
76	8,706,097	-	3,073,518	-	557,846	6,190,426
77	6,190,426	-	2,230,262	-	394,948	4,355,111
78	4,355,111	-	1,601,202	-	276,632	3,030,541
79	3,030,541	-	1,137,153	-	191,624	2,085,013
80	2,085,013	-	798,566	-	131,221	1,417,668
81	1,417,668	-	554,271	-	88,792	952,189
82	952,189	-	380,038	-	59,343	631,494
83	631,494	-	257,279	-	39,157	413,372
84	413,372	-	171,878	-	25,500	266,995
85	266,995	-	113,281	-	16,384	170,098
86	170,098	-	73,637	-	10,382	106,844
87	106,844	-	47,200	-	6,486	66,129
88	66,129	-	29,824	-	3,991	40,296
89	40,296	-	18,573	-	2,417	24,139
90	24,139	-	11,391	-	1,438	14,185
91	14,185	-	6,870	-	838	8,154
92	8,154	-	4,066	-	477	4,565
93	4,565	-	2,355	-	264	2,474
94	2,474	-	1,325	-	141	1,290
95	1,290	-	717	-	73	646
96	646	-	370	-	36	312
97	312	-	188	-	17	141
98	141	-	91	-	7	58
99	58	-	60	-	2	0
100	0	-	-	-	0	0

Single Discount Rate Development

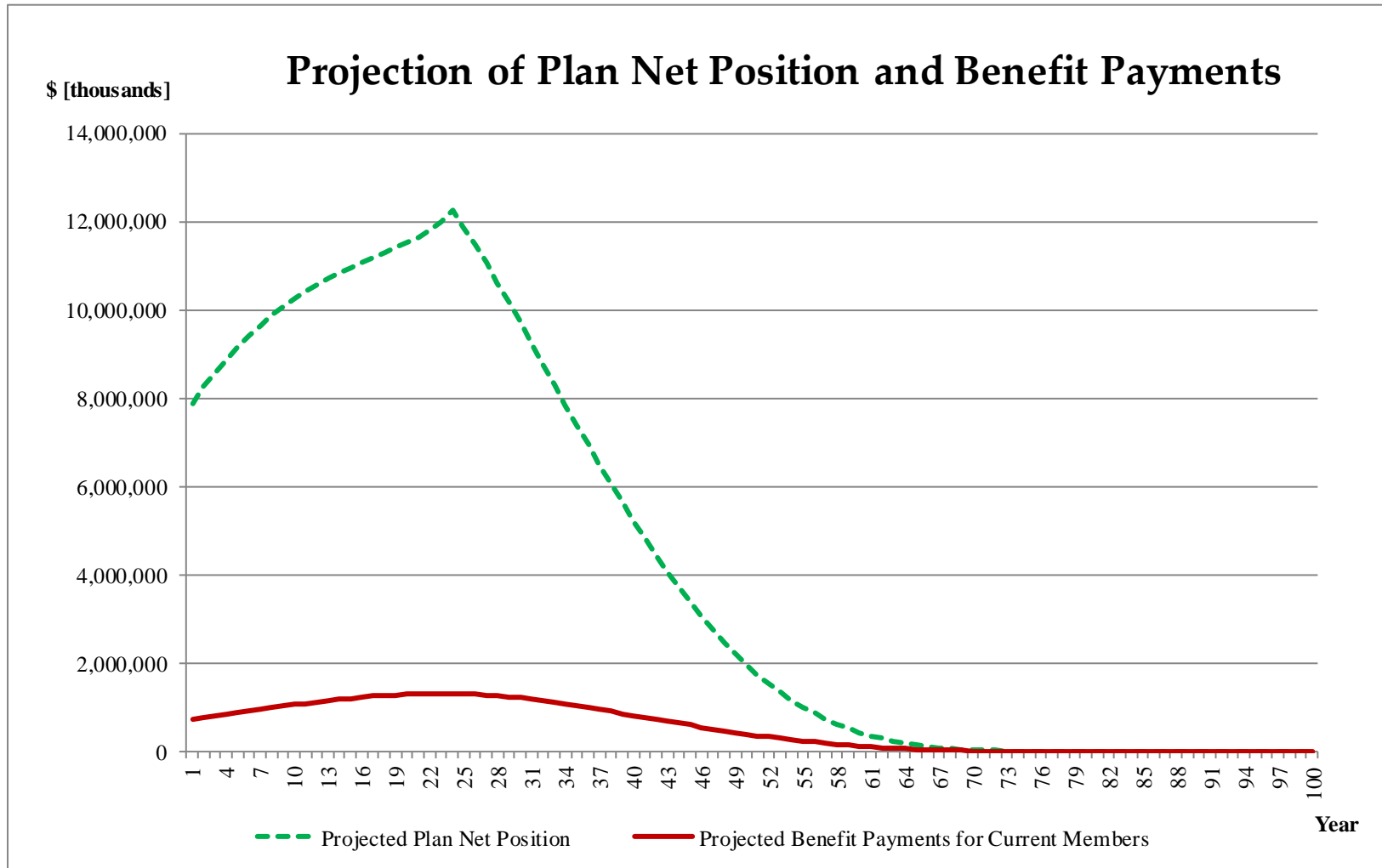
Present Values of Projected Benefit Payments Beginning July 1, 2015 (Years 1-50)

Year	Projected Beginning Plan Net Position	Projected Benefit Payments	Funded Portion of Benefit Payments	Unfunded Portion of Benefit Payments	Present Value of Funded Benefit Payments using Expected Return Rate (v)	Present Value of Unfunded Benefit Payments using Municipal Bond Rate (vf)	Present Value of Benefit Payments using Single Discount Rate (sdr)
(a)	(b)	(c)	(d)	(e)	(f)=(d)*v ^a ((a)-.5)	(g)=(e)*vf ^a ((a)-.5)	(h)=(c)/(1+sdr) ^a ((a)-.5)
1	\$ 7,509,926,452	\$ 718,967,279	\$ 718,967,279	\$ -	\$ 692,628,705	\$ -	\$ 692,628,705
2	7,893,854,472	757,028,763	757,028,763	-	676,840,694	-	676,840,694
3	8,268,081,713	794,158,296	794,158,296	-	658,967,324	-	658,967,324
4	8,577,204,409	832,867,553	832,867,553	-	641,380,079	-	641,380,079
5	8,869,952,488	872,429,056	872,429,056	-	623,522,840	-	623,522,840
6	9,144,653,063	911,976,192	911,976,192	-	604,906,801	-	604,906,801
7	9,400,307,979	950,248,399	950,248,399	-	584,958,201	-	584,958,201
8	9,637,291,014	986,969,522	986,969,522	-	563,863,718	-	563,863,718
9	9,856,504,333	1,022,485,201	1,022,485,201	-	542,138,389	-	542,138,389
10	10,058,574,089	1,058,310,985	1,058,310,985	-	520,773,834	-	520,773,834
11	10,242,496,729	1,091,611,487	1,091,611,487	-	498,524,687	-	498,524,687
12	10,410,265,875	1,123,235,050	1,123,235,050	-	476,071,234	-	476,071,234
13	10,563,129,938	1,152,500,641	1,152,500,641	-	453,341,200	-	453,341,200
14	10,703,144,723	1,179,149,849	1,179,149,849	-	430,462,908	-	430,462,908
15	10,832,925,667	1,205,075,295	1,205,075,295	-	408,285,203	-	408,285,203
16	10,953,105,173	1,228,987,955	1,228,987,955	-	386,437,981	-	386,437,981
17	11,065,825,768	1,250,261,119	1,250,261,119	-	364,851,070	-	364,851,070
18	11,174,271,902	1,268,914,912	1,268,914,912	-	343,660,899	-	343,660,899
19	11,281,780,559	1,284,968,778	1,284,968,778	-	322,977,982	-	322,977,982
20	11,391,818,281	1,297,300,204	1,297,300,204	-	302,624,127	-	302,624,127
21	11,509,448,681	1,305,764,394	1,305,764,394	-	282,690,104	-	282,690,104
22	11,640,326,881	1,310,815,408	1,310,815,408	-	263,372,267	-	263,372,267
23	11,790,055,291	1,313,141,071	1,313,141,071	-	244,862,687	-	244,862,687
24	12,000,125,893	1,311,828,163	1,311,828,163	-	227,023,543	-	227,023,543
25	12,245,259,291	1,306,474,174	1,306,474,174	-	209,834,792	-	209,834,792
26	11,869,683,388	1,296,999,407	1,296,999,407	-	193,329,963	-	193,329,963
27	11,470,011,564	1,282,739,357	1,282,739,357	-	177,451,850	-	177,451,850
28	11,049,902,007	1,263,802,424	1,263,802,424	-	162,257,215	-	162,257,215
29	10,613,212,273	1,240,266,709	1,240,266,709	-	147,782,374	-	147,782,374
30	10,163,947,641	1,212,802,551	1,212,802,551	-	134,115,933	-	134,115,933
31	9,705,705,521	1,181,502,110	1,181,502,110	-	121,257,189	-	121,257,189
32	9,242,180,044	1,146,955,194	1,146,955,194	-	109,245,151	-	109,245,151
33	8,776,672,434	1,109,939,650	1,109,939,650	-	98,115,541	-	98,115,541
34	8,311,849,221	1,070,735,414	1,070,735,414	-	87,842,225	-	87,842,225
35	7,850,253,082	1,030,192,737	1,030,192,737	-	78,437,251	-	78,437,251
36	7,393,744,426	988,861,301	988,861,301	-	69,875,026	-	69,875,026
37	6,943,721,038	947,000,737	947,000,737	-	62,104,010	-	62,104,010
38	6,501,417,886	905,316,920	905,316,920	-	55,100,137	-	55,100,137
39	6,067,403,081	863,781,135	863,781,135	-	48,790,861	-	48,790,861
40	5,642,302,330	821,961,429	821,961,429	-	43,089,249	-	43,089,249
41	5,227,227,676	778,776,611	778,776,611	-	37,888,997	-	37,888,997
42	4,824,491,890	734,154,521	734,154,521	-	33,148,998	-	33,148,998
43	4,436,652,059	689,193,427	689,193,427	-	28,880,638	-	28,880,638
44	4,065,294,933	644,765,294	644,765,294	-	25,075,524	-	25,075,524
45	3,711,190,375	601,053,748	601,053,748	-	21,694,238	-	21,694,238
46	3,374,962,048	558,285,760	558,285,760	-	18,701,238	-	18,701,238
47	3,057,037,823	516,666,763	516,666,763	-	16,062,275	-	16,062,275
48	2,757,659,578	476,433,471	476,433,471	-	13,746,164	-	13,746,164
49	2,476,834,641	437,715,161	437,715,161	-	11,720,700	-	11,720,700
50	2,214,432,208	400,578,023	400,578,023	-	9,954,783	-	9,954,783

Single Discount Rate Development

Present Values of Projected Benefit Payments Beginning July 1, 2015 (Concluded) (Years 51-100)

Year	Projected Beginning Plan Net Position	Projected Benefit Payments	Funded Portion of Benefit Payments	Unfunded Portion of Benefit Payments	Present Value of Funded Benefit Payments using Expected Return Rate (v)	Present Value of Unfunded Benefit Payments using Municipal Bond Rate (vf)	Present Value of Benefit Payments using Single Discount Rate (sdr)
(a)	(b)	(c)	(d)	(e)	(f)=(d)*v ^{((a)-.5)}	(g)=(e)*vf ^{((a)-.5)}	(h)=((c)/(1+sdr) ^(a-.5)
51	\$ 1,970,240,865	\$ 365,074,574	\$ 365,074,574	\$ -	\$ 8,419,940	\$ -	\$ 8,419,940
52	1,743,977,419	331,245,509	331,245,509	-	7,090,227	-	7,090,227
53	1,535,293,903	299,126,107	299,126,107	-	5,942,199	-	5,942,199
54	1,343,778,212	268,746,956	268,746,956	-	4,954,720	-	4,954,720
55	1,168,954,434	240,133,628	240,133,628	-	4,108,765	-	4,108,765
56	1,010,283,219	213,306,260	213,306,260	-	3,387,230	-	3,387,230
57	867,162,517	188,278,868	188,278,868	-	2,774,759	-	2,774,759
58	738,929,069	165,059,435	165,059,435	-	2,257,599	-	2,257,599
59	624,859,925	143,650,966	143,650,966	-	1,823,466	-	1,823,466
60	524,172,992	124,047,595	124,047,595	-	1,461,370	-	1,461,370
61	436,031,649	106,232,677	106,232,677	-	1,161,483	-	1,161,483
62	359,551,717	90,178,295	90,178,295	-	915,039	-	915,039
63	293,809,473	75,843,016	75,843,016	-	714,226	-	714,226
64	237,852,611	63,169,694	63,169,694	-	552,092	-	552,092
65	190,714,341	52,085,042	52,085,042	-	422,473	-	422,473
66	151,429,024	42,499,666	42,499,666	-	319,929	-	319,929
67	119,048,974	34,309,835	34,309,835	-	239,701	-	239,701
68	92,660,736	27,399,220	27,399,220	-	177,653	-	177,653
69	71,400,814	21,642,122	21,642,122	-	130,232	-	130,232
70	54,469,270	16,908,519	16,908,519	-	94,429	-	94,429
71	41,139,139	13,067,539	13,067,539	-	67,729	-	67,729
72	30,762,965	9,990,869	9,990,869	-	48,058	-	48,058
73	22,776,303	7,557,654	7,557,654	-	33,739	-	33,739
74	16,696,417	5,657,423	5,657,423	-	23,440	-	23,440
75	12,117,832	4,191,477	4,191,477	-	16,117	-	16,117
76	8,706,097	3,073,518	3,073,518	-	10,968	-	10,968
77	6,190,426	2,230,262	2,230,262	-	7,386	-	7,386
78	4,355,111	1,601,202	1,601,202	-	4,922	-	4,922
79	3,030,541	1,137,153	1,137,153	-	3,244	-	3,244
80	2,085,013	798,566	798,566	-	2,114	-	2,114
81	1,417,668	554,271	554,271	-	1,362	-	1,362
82	952,189	380,038	380,038	-	867	-	867
83	631,494	257,279	257,279	-	544	-	544
84	413,372	171,878	171,878	-	338	-	338
85	266,995	113,281	113,281	-	206	-	206
86	170,098	73,637	73,637	-	125	-	125
87	106,844	47,200	47,200	-	74	-	74
88	66,129	29,824	29,824	-	43	-	43
89	40,296	18,573	18,573	-	25	-	25
90	24,139	11,391	11,391	-	14	-	14
91	14,185	6,870	6,870	-	8	-	8
92	8,154	4,066	4,066	-	4	-	4
93	4,565	2,355	2,355	-	2	-	2
94	2,474	1,325	1,325	-	1	-	1
95	1,290	717	717	-	1	-	1
96	646	370	370	-	-	-	-
97	312	188	188	-	-	-	-
98	141	91	91	-	-	-	-
99	58	37	37	-	-	-	-
100	0	-	-	-	-	-	-
Totals					\$ 13,177,837,662	\$ -	\$ 13,177,837,662



Medical Subsidy
Determination of Unfunded Actuarial Accrued Liability
as of June 30, 2015

	State Employees	Political Subdivision Employees	Teachers	Police & Fire	Total
A. Present Value of Future Medical Benefits					
1. Retirees and Beneficiaries	\$ 73,716,017	\$ 58,609,246	\$ 229,403,736	\$ 186,648,769	\$ 548,377,768
2. Vested Terminated Members	-	-	-	-	-
3. Active Members	-	-	-	139,043,723	139,043,723
Total Present Value of Future Medical Benefits	73,716,017	58,609,246	229,403,736	325,692,492	687,421,491
B. Present Value of Future Employer Normal Costs	-	-	-	11,758,816	11,758,816
C. Present Value of Future Contributions from Current Active Members	-	-	-	-	-
D. Actuarial Medical Accrued Liability (A.-B.-C.)	73,716,017	58,609,246	229,403,736	313,933,676	675,662,675
E. 401(h) Subtrust Actuarial Value of Assets	552,803	21,961,455	(13,305,221)	10,306,442	19,515,479
F. Unfunded Actuarial Accrued Liability (D.-E.)	\$ 73,163,214	\$ 36,647,791	\$ 242,708,957	\$ 303,627,234	\$ 656,147,196

The Unfunded Actuarial Accrued Liability (UAAL) is not booked as an expense all in one-year under GASB Statement No. 43 and does not appear in the System's Statement of Net Assets. Nevertheless, it is reported in the Notes to the Financial Statements and in the Required Supplementary Information. These are information sections within the System's financial statements.

Notes to Required Supplementary Information (As Required by GASB Statement No. 43)

The information presented in the required supplementary schedules was determined as part of the actuarial valuation at the dates indicated. Additional information as of the latest actuarial valuation follows:

Valuation Date	June 30, 2015
Actuarial Cost Method	Entry Age Normal
Amortization Method	Level Percentage of Payroll, Closed
Equivalent Single Amortization Period	16 Years*
Valuation Asset Method	5-Year Smoothed Market
Actuarial Assumptions:	
Investment Rate of Return *	3.75%
Projected Salary Increase *	4.15% to 24.55%
* <i>Includes Price Inflation at</i>	3.00%
Rate of Payroll Growth	3.75%
Increase in Medical Supplement	0.0%

* *The ARC is based on the greater of a 22 year amortization or the amount necessary to meet cash flow.*

SECTION C

ACTUARIAL SECTION

Summary of Changes from June 30, 2014 to June 30, 2015

	Pension				
	Employees	Teachers	Police	Fire	Total
Reconciliation of UAAL					
Expected	\$1,511.1	\$1,825.0	\$731.3	\$329.2	\$4,396.6
Impact of (Gain)Loss	(45.0)	(88.3)	(34.3)	(21.1)	(188.7)
Impact of Data Change	(4.8)	20.8	(14.9)	(1.1)	0.0
Impact of Assumption Change	0.0	0.0	0.0	0.0	0.0
Impact of Plan Change	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>N/A</u>
Total	\$1,461.3	\$1,757.5	\$682.1	\$307.0	\$4,207.9
Funded %					
Prior Valuation	59.5 %	58.0 %	65.2 %	67.0 %	60.7 %
Expected Change	1.3 %	0.8 %	0.8 %	0.7 %	1.0 %
Impact of Gain(Loss)	1.2 %	2.0 %	1.7 %	2.2 %	1.7 %
Impact of Data Change	0.2 %	(0.4)%	0.7 %	0.1 %	0.0 %
Impact of Assumption Change	0.0 %	0.0 %	0.0 %	0.0 %	0.0 %
Impact of Plan Change	<u>0.0 %</u>	<u>0.0 %</u>	<u>0.0 %</u>	<u>0.0 %</u>	<u>0.0 %</u>
Total	62.2 %	60.4 %	68.4 %	70.0 %	63.4 %

	Medical Subsidy				
	State Employees	Political Subdivision Employees	Teachers	Police & Fire	Total
Reconciliation of UAAL					
Expected	\$ 72.1	\$ 42.4	\$ 236.3	\$ 321.0	\$671.8
Impact of (Gain)Loss	1.1	(5.8)	6.4	(17.4)	(15.7)
Impact of Assumption Change	0.0	0.0	0.0	0.0	0.0
Impact of Plan Change	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>
Total	\$73.2	\$36.6	\$242.7	\$303.6	\$656.1

The pension funded percent of 63.4% is the ratio of the actuarial value of assets to the actuarial accrued liability for NHRS in total. That ratio is 65.4% based on market value of assets.

The funded percent is appropriate for assessing the need for future contributions, but does not give an indication for the amount of such contributions. The funded percent is not appropriate for assessing the sufficiency of plan assets to cover the estimated cost of settling the Plan's benefit obligations.

Development of Actuarial Value of Assets

Year Ended June 30:	2013	2014	2015	2016	2017	2018	2019
A. Funding Value Beginning of Year	\$ 5,846,570,198	\$ 6,092,504,545	\$ 6,721,799,334				
B. Market Value End of Year	6,428,009,027	7,414,061,986	7,530,056,191				
C. Market Value Beginning of Year	5,774,343,173	6,428,009,027	7,414,061,986				
D. Non-Investment Net Cash Flow	(164,621,788)	(111,915,208)	(134,800,821)				
E. Investment Income							
E1. Market Total: B - C - D	818,287,642	1,097,968,167	250,795,026				
E2. Assumed Rate	7.75%	7.75%	7.75%				
E3. Amount for Immediate Recognition	446,730,096	467,832,388	515,715,917				
E4. Amount for Phased-In Recognition: E1-E3	371,557,546	630,135,779	(264,920,891)				
F. Phased-In Recognition of Investment Income							
F1. Current Year: 0.20 x E4	74,311,509	126,027,156	(52,984,178)				
F2. First Prior Year	(84,987,675)	74,311,509	126,027,156	\$ (52,984,178)			
F3. Second Prior Year	135,194,850	(84,987,675)	74,311,509	126,027,156	\$ (52,984,178)		
F4. Third Prior Year	22,831,769	135,194,850	(84,987,675)	74,311,509	126,027,156	\$ (52,984,178)	
F5. Fourth Prior Year	(183,524,414)	22,831,769	135,194,849	(84,987,673)	74,311,510	126,027,155	\$ (52,984,179)
F6. Total Recognized Investment Gain	(36,173,961)	273,377,609	197,561,661	62,366,814	147,354,488	73,042,977	(52,984,179)
G. Preliminary Funding Value End of Year: A + D + E3 + F6	\$6,092,504,545	\$6,721,799,334	\$7,300,276,091				
H. Additional Recognized G/L due to Corridor	-	-	-				
I. Final Funding Value after 20% Corridor	\$ 6,092,504,545	\$ 6,721,799,334	\$ 7,300,276,091				
J. Difference between Market & Funding Value: B-I	\$ 335,504,482	\$ 692,262,652	\$ 229,780,100				
K. Recognized Rate of Return	7.12%	12.28%	10.72%				
L. Market Rate of Return	14.38%	17.23%	3.41%				
M. Ratio of Funding Value to Market Value	94.78%	90.66%	96.95%				

The Funding Value of Assets recognizes assumed investment income (line E2) fully each year. Differences between actual and assumed investment income (line E3) are phased in over a closed 5-year period. During periods when investment performance exceeds the assumed rate, Funding Value of Assets will tend to be less than market value. During periods when investment performance is less than the assumed rate, Funding Value of Assets will tend to be greater than market value. The Funding Value of Assets is unbiased with respect to Market Value. At any time it may be either greater or less than Market Value. If assumed rates are exactly realized for 4 consecutive years, it will become equal to Market Value. Final Funding Value of Assets may not be less than 80% nor more than 120% of Market Value of Assets.

Allocation of Assets

	Employees	Teachers	Police	Fire	Total
Allocated Fund Assets (Actuarial Value)	\$ 2,425,808,286	\$ 2,668,777,279	\$ 1,482,803,068	\$ 722,887,458	\$ 7,300,276,091
Less Reserve for TSAs	-	-	-	-	-
Less 401(h) Account	(22,514,258)	13,305,221	(5,286,338)	(5,020,104)	(19,515,479)
Net Pension Valuation Assets	\$ 2,403,294,028	\$ 2,682,082,500	\$ 1,477,516,730	\$ 717,867,354	\$ 7,280,760,612

The allocation of the valuation assets to the member classifications is based on a prorata share weighted by the market value of assets net of the reserve for TSAs payable July 1, 2015.

Development of Pension Actuarial Liabilities June 30, 2015

Actuarial Present Value of	Total Present Value (1)	Portion Covered by Future Normal Cost Contributions (2)	Actuarial Accrued Liabilities (1) - (2)
Age and service allowances based on total service likely to be rendered by present active members	\$ 6,420,843,433	\$ 1,235,739,558	\$ 5,185,103,875
Disability benefits likely to be paid to present active members	62,292,675	51,833,679	10,458,996
Death-in-service benefits likely to be paid on behalf of present active members (employer financed portion)	57,725,275	25,238,761	32,486,514
Separation benefits (refunds of contributions and deferred allowances) likely to be paid to present active members	453,066,796	518,779,816	(65,713,020)
Benefits likely to be paid to current inactive and vested deferred members	227,764,705	-	227,764,705
Benefits to be paid to current retirees, beneficiaries, and future beneficiaries of current retirees	6,098,512,311	-	6,098,512,311
Total	\$ 13,320,205,195	\$ 1,831,591,814	\$ 11,488,613,381
Actuarial Value of Assets	\$ 7,280,760,612	-	\$ 7,280,760,612
Liabilities to be Covered by Future Contributions	\$ 6,039,444,583	\$ 1,831,591,814	\$ 4,207,852,769
 Funded Ratio			 63.4%

Actuarial Balance Sheet as of June 30, 2015

Assets and Present Value of Expected Future Contributions

	Pension	Medical Subsidy
A. Present valuation assets		
1. Net assets from system financial statements	\$ 7,509,926,452	\$ 20,129,739
2. Reserve for TSAs	-	-
3. Funding value adjustment	(229,165,840)	(614,260)
4. Valuation assets	7,280,760,612	19,515,479
B. Actuarial present value of expected future employer contributions		
1. For normal costs	264,112,946	11,758,816
2. For unfunded actuarial accrued liability	4,207,852,769	656,147,196
3. Total	4,471,965,715	667,906,012
C. Actuarial present value of expected future member contributions	1,567,478,868	-
D. Total Present and Expected Future Resources	\$ 13,320,205,195	\$ 687,421,491

Present Value of Expected Future Benefit Payments

	Pension	Medical Subsidy
A. To retirees and beneficiaries	\$ 6,098,512,311	\$ 548,377,768
B. To vested terminated members	164,792,062	-
C. To non-vested terminated members (outstanding refunds)	62,972,643	-
D. To present active members		
1. Allocated to service rendered prior to valuation date - actuarial accrued liability	5,162,336,365	127,284,907
2. Allocated to service likely to be rendered after valuation date	1,831,591,814	11,758,816
3. Total	6,993,928,179	139,043,723
E. Total Actuarial Present Value of Expected Future Pension Payments	\$ 13,320,205,195	\$ 687,421,491

Experience Gain/(Loss) -- June 30, 2015

	Pension	Medical Subsidy
(1) Actual UAAL as of June 30, 2014	\$ 4,344,620,431	\$ 692,857,517
(2) Normal cost from 2014 valuation	262,220,448	2,759,870
(3) Actual contributions (employer and employee)	536,357,395	48,914,506
(4) Interest accrual: [(1)+1/2 [(2)-(3)]] x {.0775 for pension; .0375 for medical subsidy}	326,085,277	25,116,757
(5) Expected UAAL end of year: (1)+(2)-(3)+(4)	4,396,568,761	671,819,638
(6) Change from legislation	-	-
(7) Change from revised actuarial assumptions	-	-
(8) Expected UAAL after changes: (5)+(6)+(7)	4,396,568,761	671,819,638
(9) Actual UAAL as of June 30, 2015	4,207,852,769	656,147,196
(10) Gain/(loss) for year 2: (8)-(9)	188,715,992	15,672,442
(11) Gain/(loss) as percent of actuarial accrued liabilities at start of year	1.7 %	2.2 %

* *Unfunded Actuarial Accrued Liabilities.*

Summary of Risk Measures

Valuation Year	Funded Ratio	Actual Total Payroll / Expected Total Payroll	UAAL Amortization Period	UAAL / Total Payroll	Funding Value of Assets / Total Payroll	Total AAL / Total Payroll	Standard Deviation of Investment Return / Total Payroll
June 30, 2007*	67.0 %	98 %	30	1.1	2.2	3.3	***
June 30, 2008	67.8	101	30	1.1	2.3	3.4	***
June 30, 2009*	58.3	101	30	1.4	2.0	3.5	23%
June 30, 2010	58.5	97	30	1.5	2.1	3.6	23%
June 30, 2011#*	57.4	97	29	1.7	2.3	4.0	26%
June 30, 2012	56.1	95	28	1.8	2.3	4.2	28%
June 30, 2013	56.7	97	27	1.9	2.4	4.3	29%
June 30, 2014	60.7	97	26	1.7	2.7	4.4	32%
June 30, 2015	63.4	99	25	1.6	2.8	4.5	36%

After reflection of changes in assumptions.

* After reflection of changes in legislation.

*** Unavailable.

These risk measures are provided in accordance with the System's Actuarial Funding Policy. Short term fluctuations will occur due to experience, plan changes, and assumption and method changes. Long term expectations are described below.

Funded Ratio: The funded ratio is expected to trend toward 100% by June 30, 2039 under the statutory 30-year amortization period.

Actual Total Payroll / Expected Total Payroll: This ratio is expected to remain near 100% each year.

UAAL Amortization Period: The statutory amortization period is decreased by one year each year beginning with the 2010-2011 biennium.

UAAL / Total Payroll: The ratio of the unfunded actuarial accrued liability to payroll is expected to trend toward 0% by June 30, 2039.

Funding Value of Assets / Total Payroll: As the funded ratio increases, this ratio is expected to converge to the ratio of Total AAL / Payroll.

Total AAL / Total Payroll: Total AAL / Total Payroll is expected to grow as the System matures. The rate of growth may slow down as members hired on or after July 1, 2011 replace current members.

Standard Deviation of Investment Return / Total Payroll: This measure illustrates the impact of a one standard deviation change in investment return as a percent of payroll. Investment return experience other than expected ultimately affects the employer contribution rates. The higher the ratio of this risk metric, the greater the expected volatility in employer contribution rates. Absent changes in investment policy, this metric is expected to increase as the assets grow to 100% of the AAL.

Pension Solvency Test

The New Hampshire Retirement System funding objective is to meet long-term benefit promises through contributions that remain approximately level from year-to-year as a percent of member payroll. If the contributions to the System are level in concept and soundly executed, the System will pay all promised benefits when due -- the ultimate test of financial soundness.

A *solvency test* is one means of checking a system's progress under its funding program. In a solvency test, the plan's present assets (cash and investments) are compared with:

- 1) Active member contributions on deposit;
- 2) The liabilities for future benefits to present retired lives;
- 3) The liabilities for service already rendered by active and inactive members.

In a System that has been following the discipline of level percent-of-payroll financing, the liabilities for active member contributions on deposit (liability 1) and the liabilities for future benefits to present retired lives (liability 2) will be fully covered by present assets (except in rare circumstances). In addition, the liabilities for service already rendered by active members (liability 3) will be partially covered by the remainder of present assets. The larger the funded portion of liability 3, the stronger the condition of the System.

		Total of all Groups							
		(\$ in Thousands)							
		Projected Pension Liabilities for					Percentage of Accrued		
		(1)	(2)	(3)	Net Assets	Liabilities Covered by Net			
Fiscal	Year	Aggregate	Current	Active & Inactive	Available	Assets Available			
		Member	Retirees &	Members (Employer	for Benefits	(1)	(2)	(3)	
		Contributions	Beneficiaries	Financed Portion)					
2007	*	\$2,228,853	\$3,210,280	\$1,820,582	\$4,862,256	100%	82%	0%	
2008		2,312,069	3,618,118	1,891,129	5,302,034	100%	83%	0%	
2009	*	2,393,635	4,012,274	2,069,143	4,937,320	100%	63%	0%	
2010		2,553,612	4,378,205	2,022,115	5,233,838	100%	61%	0%	
2011	#*	2,631,430	4,959,865	2,406,956	5,740,516	100%	63%	0%	
2012		2,773,081	5,246,672	2,341,847	5,817,882	100%	58%	0%	
2013		2,808,526	5,519,814	2,380,428	6,070,681	100%	59%	0%	
2014		2,842,340	5,789,052	2,413,782	6,700,553	100%	67%	0%	
2015		2,886,196	6,098,512	2,503,905	7,280,761	100%	72%	0%	

After reflection of changes in assumptions.

* After reflection of changes in legislation.

Pension Solvency Test -- Comparative Statement (\$ in Thousands)

Group	Fiscal Year	Projected Pension Liabilities for				Net Assets Available for Benefits	Percentage of Accrued Liabilities Covered by Net Assets Available		
		(1)	(2)	(3)	(1)		(2)	(3)	
		Aggregate Member Contributions	Current Retirees & Beneficiaries	Active & Inactive Members (Employer Financed Portion)					
Employees	2007 *	\$ 797,627	\$ 997,992	\$ 528,538	\$ 1,539,196	100%	74%	0%	
Teachers	2007 *	925,813	1,200,541	797,922	1,925,913	100%	83%	0%	
Police	2007 *	344,485	655,803	339,086	934,744	100%	90%	0%	
Fire	2007 *	160,927	355,944	155,036	462,403	100%	85%	0%	
Employees	2008	837,375	1,124,075	581,109	1,696,189	100%	76%	0%	
Teachers	2008	943,611	1,387,605	828,084	2,114,543	100%	84%	0%	
Police	2008	359,611	727,584	339,186	1,014,088	100%	90%	0%	
Fire	2008	171,471	378,854	142,751	477,214	100%	81%	0%	
Employees	2009 *	899,364	1,217,430	666,232	1,600,150	100%	58%	0%	
Teachers	2009 *	926,049	1,608,341	855,367	1,957,103	100%	64%	0%	
Police	2009 *	381,273	790,433	378,409	940,825	100%	71%	0%	
Fire	2009 *	186,949	396,070	169,135	439,241	100%	64%	0%	
Employees	2010	955,735	1,344,902	680,958	1,721,002	100%	57%	0%	
Teachers	2010	998,775	1,770,635	783,710	2,049,650	100%	59%	0%	
Police	2010	397,440	851,136	386,621	997,325	100%	70%	0%	
Fire	2010	201,661	411,532	170,827	465,861	100%	64%	0%	
Employees	2011 #*	995,389	1,548,109	810,983	1,834,609	100%	54%	0%	
Teachers	2011 #*	1,041,699	1,893,862	973,407	2,153,182	100%	59%	0%	
Police	2011 #*	396,344	1,030,900	432,256	1,179,798	100%	76%	0%	
Fire	2011 #*	197,998	486,994	190,310	572,927	100%	77%	0%	
Employees	2012	1,052,106	1,641,026	756,255	1,877,395	100%	50%	0%	
Teachers	2012	1,101,262	1,999,152	949,670	2,173,315	100%	54%	0%	
Police	2012	411,672	1,092,005	432,116	1,189,308	100%	71%	0%	
Fire	2012	208,041	514,489	203,805	577,864	100%	72%	0%	
Employees	2013	1,069,628	1,729,855	755,482	1,977,479	100%	52%	0%	
Teachers	2013	1,107,192	2,087,926	977,937	2,255,011	100%	55%	0%	
Police	2013	417,630	1,160,173	438,580	1,236,579	100%	71%	0%	
Fire	2013	214,076	541,860	208,430	601,612	100%	72%	0%	
Employees	2014	1,083,878	1,823,517	784,437	2,195,284	100%	61%	0%	
Teachers	2014	1,113,650	2,198,892	966,511	2,482,496	100%	62%	0%	
Police	2014	422,972	1,209,741	454,133	1,361,280	100%	78%	0%	
Fire	2014	221,840	556,902	208,701	661,493	100%	79%	0%	
Employees	2015	1,107,866	1,916,257	840,426	2,403,294	100%	68%	0%	
Teachers	2015	1,127,439	2,323,302	988,870	2,682,083	100%	67%	0%	
Police	2015	429,115	1,266,591	463,902	1,477,517	100%	83%	0%	
Fire	2015	221,776	592,362	210,708	717,867	100%	84%	0%	

After reflection of changes in assumptions.

* After reflection of changes in legislation.

Development of Pension Actuarial Liabilities June 30, 2015

Employees

Actuarial Present Value of	Total Present Value (1)	Portion Covered by Future Normal Cost Contributions (2)	Actuarial Accrued Liabilities (1) - (2)
Age and service allowances based on total service likely to be rendered by present active members	\$ 2,357,597,871	\$ 455,912,413	\$ 1,901,685,458
Disability benefits likely to be paid to present active members	17,168,789	21,948,830	(4,780,041)
Death-in-service benefits likely to be paid on behalf of present active members (employer financed portion)	31,557,824	14,092,536	17,465,288
Separation benefits (refunds of contributions and deferred allowances) likely to be paid to present active members	132,974,978	206,356,470	(73,381,492)
Benefits likely to be paid to current inactive and vested deferred members	107,303,046	-	107,303,046
Benefits to be paid to current retirees, beneficiaries, and future beneficiaries of current retirees	1,916,257,052	-	1,916,257,052
Total	\$ 4,562,859,560	\$ 698,310,249	\$ 3,864,549,311
Actuarial Value of Assets	\$ 2,403,294,028	\$ -	\$ 2,403,294,028
Liabilities to be Covered by Future Contributions	\$ 2,159,565,532	\$ 698,310,249	\$ 1,461,255,283
Funded Ratio			62.2%

Development of Pension Actuarial Liabilities June 30, 2015

Teachers

Actuarial Present Value of	Total Present Value (1)	Portion Covered by Future Normal Cost Contributions (2)	Actuarial Accrued Liabilities (1) - (2)
Age and service allowances based on total service likely to be rendered by present active members	\$ 2,518,246,979	\$ 463,787,530	\$ 2,054,459,449
Disability benefits likely to be paid to present active members	2,530,574	1,950,611	579,963
Death-in-service benefits likely to be paid on behalf of present active members (employer financed portion)	16,821,546	6,188,055	10,633,491
Separation benefits (refunds of contributions and deferred allowances) likely to be paid to present active members	143,606,168	189,345,271	(45,739,103)
Benefits likely to be paid to current inactive and vested deferred members	96,374,409	-	96,374,409
Benefits to be paid to current retirees, beneficiaries, and future beneficiaries of current retirees	2,323,302,744	-	2,323,302,744
Total	\$ 5,100,882,420	\$ 661,271,467	\$ 4,439,610,953
Actuarial Value of Assets	\$ 2,682,082,500	\$ -	\$ 2,682,082,500
Liabilities to be Covered by Future Contributions	\$ 2,418,799,920	\$ 661,271,467	\$ 1,757,528,453
Funded Ratio			60.4%

Development of Pension Actuarial Liabilities
June 30, 2015

Police

Actuarial Present Value of	Total Present Value (1)	Portion Covered by Future Normal Cost Contributions (2)	Actuarial Accrued Liabilities (1) - (2)
Age and service allowances based on total service likely to be rendered by present active members	\$ 992,066,909	\$ 180,894,271	\$ 811,172,638
Disability benefits likely to be paid to present active members	28,606,274	18,529,713	10,076,561
Death-in-service benefits likely to be paid on behalf of present active members (employer financed portion)	6,709,816	3,541,125	3,168,691
Separation benefits (refunds of contributions and deferred allowances) likely to be paid to present active members	149,295,925	101,340,728	47,955,197
Benefits likely to be paid to current inactive and vested deferred members	20,643,526	-	20,643,526
Benefits to be paid to current retirees, beneficiaries, and future beneficiaries of current retirees	1,266,590,946	-	1,266,590,946
Total	\$ 2,463,913,396	\$ 304,305,837	\$ 2,159,607,559
Actuarial Value of Assets	\$ 1,477,516,730	-	\$ 1,477,516,730
Liabilities to be Covered by Future Contributions	\$ 986,396,666	\$ 304,305,837	\$ 682,090,829
Funded Ratio			68.4%

Development of Pension Actuarial Liabilities June 30, 2015

Fire

Actuarial Present Value of	Total Present Value (1)	Portion Covered by Future Normal Cost Contributions (2)	Actuarial Accrued Liabilities (1) - (2)
Age and service allowances based on total service likely to be rendered by present active members	\$ 552,931,674	\$ 135,145,344	\$ 417,786,330
Disability benefits likely to be paid to present active members	13,987,038	9,404,525	4,582,513
Death-in-service benefits likely to be paid on behalf of present active members (employer financed portion)	2,636,089	1,417,045	1,219,044
Separation benefits (refunds of contributions and deferred allowances) likely to be paid to present active members	27,189,725	21,737,347	5,452,378
Benefits likely to be paid to current inactive and vested deferred members	3,443,724	-	3,443,724
Benefits to be paid to current retirees, beneficiaries, and future beneficiaries of current retirees	592,361,569	-	592,361,569
Total	\$ 1,192,549,819	\$ 167,704,261	\$ 1,024,845,558
Actuarial Value of Assets	\$ 717,867,354	-	\$ 717,867,354
Liabilities to be Covered by Future Contributions	\$ 474,682,465	\$ 167,704,261	\$ 306,978,204
Funded Ratio			70.0%

Valuation Methods

Pension

Actuarial Cost Method - Normal cost and the allocation of benefit values between service rendered before and after the valuation date were determined using an **Individual Entry-Age Actuarial Cost Method** having the following characteristics:

- (i) the annual normal cost for each individual active member, payable from the date of employment to the date of retirement, is sufficient to accumulate the value of the member's benefit at the time of retirement;
- (ii) each annual normal cost is a constant percentage of the member's year by year projected covered pay.

Actuarial gain/(losses), as they occur, reduce (increase) the Unfunded Actuarial Accrued Liability.

Financing of Unfunded Actuarial Accrued Liabilities - Unfunded Actuarial Accrued Liabilities were amortized by level (principal & interest combined) percent-of-payroll contributions over 22 years from the contribution effective date (Fiscal Year 2018).

Medical Subsidy

Liabilities are determined under the entry-age actuarial cost method.

Under New Hampshire Statute, contribution rates to the 401(h) sub-trust are determined as the lesser of 25% of the employers' total contributions or the actuarial required contribution rate that keeps the medical subsidy sub-trust solvent (the "solvency rate"). Under IRS Regulations, 401(h) sub-trust contributions are limited by 25% of the total contributions to the plan (other than contributions to fund past service credits). NHRS maintains the historical information for determining compliance with IRC Section 401(h). A test for compliance with IRC Section 401(h) was outside the scope of this valuation.

Valuation Methods

Actuarial Value of Assets - The Actuarial Value of Assets recognizes assumed investment return fully each year. Differences between actual return on the Market Value of assets and assumed return on the Actuarial Value of Assets are phased-in over a closed 5-year period. During periods when investment performance exceeds the assumed rate, Actuarial Value of Assets will tend to be less than Market Value. During periods when investment performance is less than the assumed rate, Actuarial Value of Assets will tend to be greater than Market Value. The Actuarial Value of Assets is unbiased with respect to Market Value. At any time it may be either greater or less than Market Value. If assumed rates are exactly realized for 4 consecutive years, it will become equal to Market Value. Actuarial Value is limited to a 20% corridor around the Market Value.

The Actuarial Value of Assets was allocated to the pension and medical subsidy plans based on the Market Value of those plans. The Actuarial Value of Assets was then further allocated to each fund (either pension or medical subsidy) based on the Market Value of those funds.

For purposes of determining the medical subsidy solvency rates, the Market Value of Assets was used for all group funds due to the short time horizon before these closed group funds are expected to become pay-as-you-go.

Development of Amortization Payment

The employer contribution rates determined by the 2015 valuation are for the 2018-2019 biennium. The Unfunded Actuarial Accrued Liability (UAAL) was determined using the Actuarial Value of assets and actuarial accrued liability calculated as of the valuation date. The UAAL amortization payment (one component of the contribution requirement), is the level percent of pay required to fully amortize the UAAL over a 22-year period beginning on July 1, 2018. This UAAL payment reflects any payments expected to be made and interest to be accrued between the valuation date and the date contributions determined by this report are scheduled to begin. It was assumed that the entire pension contribution as determined by the June 30, 2013 valuation effective from July 1, 2015 to June 30, 2017 would be contributed to the net pension assets.

Actuarial Assumptions

The actuarial assumptions used in the valuation are shown in this section. All actuarial assumptions and the rationale for the assumptions are based on the July 1, 2005 to June 30, 2010 experience study.

All actuarial assumptions are expectations of future experience, not market measures. Under RSA 100-A:14 IX, the Board of Trustees sets the actuarial assumptions after consulting with the actuary.

Economic Assumptions

The investment return rate assumed in the pension valuations is 7.75% per year, compounded annually (net after investment expenses). *The investment return rate* assumed in the medical subsidy valuations is 3.75% per year, compounded annually (net after investment expenses) for purposes of computing accrued liabilities and other disclosures required by GASB Statement No. 43 (where applicable). However, for determining the solvency contribution rate for the medical subsidy account, the investment return rate assumption was 7.75%, where applicable.

The *Wage Inflation Rate* assumed in this valuation was 3.75% per year. The Wage Inflation Rate is defined to be the portion of total pay increases for an individual that are due to macroeconomic forces including productivity, price inflation, and labor market conditions. The wage inflation rate does not include pay changes related to individual merit and seniority effects.

No specific *Price Inflation* assumption is required to perform this valuation, since there are no benefits that are linked to price increases. However, a price inflation assumption on the order of 3.0% would be consistent with the other economic assumptions.

The assumed *Real Rate of Return* over wage inflation is defined to be the portion of total investment return that is more than the assumed total wage growth rate. Considering other economic assumptions, the 7.75% investment return rate translates to an assumed real rate of return over wage inflation of 4.00%. The assumed real rate of return over price inflation would be higher – on the order of 4.75%, considering both an inflation assumption and an average expense provision.

The active member population is assumed to remain constant. For purposes of financing the unfunded liabilities, total payroll is assumed to grow at the wage inflation rate – 3.75% per year.

Pay Increase Assumptions for individual active members are shown for sample ages in the following pages. Part of the assumption for each age is for merit and/or seniority increase, and the other 3.75% recognizes wage inflation, including price inflation, productivity increases, and other macroeconomic forces.

Actuarial Assumptions

Employees

The rates of salary increase used for individual members are in accordance with the following table. This assumption is used to project a member’s current salary to the salaries upon which benefits will be based.

Salary Increase Assumptions			
For an Individual Member			
Service Index	Merit & Seniority	Base (Economy)	Increase Next Year
1	7.55%	3.75%	11.30%
2	5.25%	3.75%	9.00%
3	3.55%	3.75%	7.30%
4	2.25%	3.75%	6.00%
5	1.75%	3.75%	5.50%
6	1.55%	3.75%	5.30%
7	0.75%	3.75%	4.50%
8	0.75%	3.75%	4.50%
9	0.75%	3.75%	4.50%
10	0.75%	3.75%	4.50%
11	0.75%	3.75%	4.50%
12	0.75%	3.75%	4.50%
13	0.75%	3.75%	4.50%
14	0.75%	3.75%	4.50%
15	0.75%	3.75%	4.50%
16	0.75%	3.75%	4.50%
17	0.75%	3.75%	4.50%
18	0.75%	3.75%	4.50%
19	0.75%	3.75%	4.50%
20	0.75%	3.75%	4.50%
21	0.75%	3.75%	4.50%
22	0.75%	3.75%	4.50%
23	0.75%	3.75%	4.50%
24	0.75%	3.75%	4.50%
25	0.75%	3.75%	4.50%
Ref:	3 - -4.50%		

Actuarial Assumptions Employees (Continued)

The standard mortality table for death after retirement is the RP 2000 mortality table, projected to 2020 with scale AA. The proposed healthy mortality tables include a margin of 15% for men and 17% for women for mortality improvements.

Sample Attained Ages	Probability of Dying Next Year		Future Life Expectancy (years)	
	Men	Women	Men	Women
35	0.070%	0.038%	47.16	49.23
40	0.092%	0.052%	42.34	44.33
45	0.116%	0.081%	37.54	39.46
50	0.149%	0.119%	32.77	34.63
55	0.247%	0.231%	28.04	29.88
60	0.489%	0.457%	23.47	25.31
65	0.961%	0.878%	19.17	21.02
70	1.641%	1.515%	15.22	17.06
75	2.854%	2.394%	11.58	13.47
80	5.265%	3.987%	8.42	10.23
Ref:	454	x 1.00	455	x 1.00

This assumption is used to measure the probabilities of each benefit payment being made after retirement.

Disabled pension mortality was based on 80% of the PBGC Disabled Mortality tables. The probabilities of disabled mortality at sample attained ages were as follows:

Sample Ages	Probability of Occurrence Next Year Disabled Death	
	Men	Women
20	3.86%	3.86%
25	3.86%	3.86%
30	2.90%	2.90%
35	2.22%	2.22%
40	2.26%	2.26%
45	2.58%	2.58%
50	3.06%	3.06%
55	3.86%	3.86%
Ref	250	250
	0.80	0.80

Actuarial Assumptions

Employees (Continued)

For active members dying before retirement, 98% percent are assumed to be ordinary death and 2% percent are assumed to be accidental death. The probabilities of dying prior to retirement at sample attained ages were as follows:

Sample Ages	Probability of Occurrence Next Year					
	Death Before Retirement					
	Men			Women		
20	0.00%			0.01%		
25	0.04%			0.02%		
30	0.04%			0.02%		
35	0.05%			0.03%		
40	0.08%			0.04%		
45	0.12%			0.06%		
50	0.18%			0.08%		
55	0.25%			0.13%		
Ref	124	x	1.00	92	x	0.40
	10			2		

Actuarial Assumptions

Employees (Continued)

The rates of retirement used to measure the probability of eligible members retiring during the next year were as follows:

For Members Hired Prior to July 1, 2011

Retirement Ages	% of Active Members Retiring Within Next Year					
	Male			Female		
	Normal	Early	Early Rule X	Normal	Early	Early Rule X
45			1.0%			1.0%
46			1.0%			1.0%
47			1.0%			1.5%
48			1.0%			1.5%
49			1.0%			1.0%
50		1.0%	1.5%		1.0%	2.0%
51		1.0%	3.0%		1.0%	2.5%
52		1.0%	3.0%		1.0%	2.0%
53		1.0%	4.0%		1.0%	3.5%
54		1.0%	4.5%		1.5%	5.5%
55		2.0%	8.0%		2.5%	10.0%
56		2.5%	10.0%		3.5%	6.0%
57		2.5%	11.0%		3.0%	13.0%
58		3.5%	11.0%		4.0%	15.0%
59		5.0%	18.0%		5.5%	15.0%
60	12.0%			12.0%		
61	12.0%			12.0%		
62	17.0%			15.0%		
63	16.0%			15.0%		
64	15.0%			15.0%		
65	15.0%			20.0%		
66	25.0%			20.0%		
67	20.0%			20.0%		
68	20.0%			16.0%		
69	20.0%			17.0%		
70	100.0%			100.0%		
Ref.	1930	1932	1934	1931	1933	1935

Actuarial Assumptions

Employees (Continued)

The rates of retirement used to measure the probability of eligible members retiring during the next year were as follows:

For Members Hired On or After July 1, 2011

Retirement Ages	% of Active Members Retiring Within Next Year			
	Male		Female	
	Normal	Early	Normal	Early
60		12.0%		12.0%
61		12.0%		12.0%
62		17.0%		15.0%
63		16.0%		15.0%
64		15.0%		15.0%
65	46.0%		45.0%	
66	46.0%		45.0%	
67	20.0%		20.0%	
68	20.0%		16.0%	
69	20.0%		17.0%	
70	100.0%		100.0%	

Actuarial Assumptions

Employees (Concluded)

Rates of separation from active membership were as shown below (rates do not apply to members eligible to retire and do not include separation on account of death or disability). This assumption measures the probabilities of members remaining in employment.

Sample Ages	Years of Service	% of Active Members Separating Within Next Year	
		Male	Female
	0	30.00%	30.00%
	1	22.00%	22.00%
	2	16.00%	16.00%
	3	12.00%	12.00%
	4	8.00%	8.00%
25	5+	5.00%	8.00%
30		5.00%	8.00%
35		5.00%	5.60%
40		5.00%	5.60%
45		5.00%	5.60%
50		5.00%	4.40%
55		5.00%	4.00%
60		5.00%	4.00%
Ref.		142	256
		1.0	2.0
		36	36

Rates of disability among active members. 50% are assumed to be ordinary disability and 50% are assumed to be accidental disability.

Sample Ages	% of Active Members Becoming Disabled Within Next Year	
	Men	Women
20	0.02%	0.00%
25	0.02%	0.01%
30	0.02%	0.02%
35	0.03%	0.02%
40	0.08%	0.05%
45	0.15%	0.09%
50	0.25%	0.19%
55	0.43%	0.35%
Ref	7	19
	1.30	0.75

Actuarial Assumptions

Teachers

The rates of salary increase used for individual members are in accordance with the following table. This assumption is used to project a member’s current salary to the salaries upon which benefits will be based.

Salary Increase Assumptions			
For an Individual Member			
Service Index	Merit & Seniority	Base (Economy)	Increase Next Year
1	6.00%	3.75%	9.75%
2	4.00%	3.75%	7.75%
3	3.00%	3.75%	6.75%
4	2.50%	3.75%	6.25%
5	2.50%	3.75%	6.25%
6	2.20%	3.75%	5.95%
7	1.70%	3.75%	5.45%
8	1.40%	3.75%	5.15%
9	1.20%	3.75%	4.95%
10	1.20%	3.75%	4.95%
11	1.00%	3.75%	4.75%
12	1.00%	3.75%	4.75%
13	0.80%	3.75%	4.55%
14	0.80%	3.75%	4.55%
15	0.80%	3.75%	4.55%
16	0.80%	3.75%	4.55%
17	0.80%	3.75%	4.55%
18	0.80%	3.75%	4.55%
19	0.80%	3.75%	4.55%
20	0.80%	3.75%	4.55%
21	0.80%	3.75%	4.55%
22	0.80%	3.75%	4.55%
23	0.70%	3.75%	4.45%
24	0.70%	3.75%	4.45%
25	0.70%	3.75%	4.45%
Ref:	13 - -3.75%		

Actuarial Assumptions

Teachers

(Continued)

The standard mortality table for death after retirement is the RP 2000 mortality table, projected to 2020 with scale AA. The proposed healthy mortality tables include a margin of 15% for men and 17% for women for mortality improvements.

Sample Attained Ages	Probability of Dying Next Year		Future Life Expectancy (years)			
	Men	Women	Men	Women		
35	0.070%	0.038%	47.16	49.23		
40	0.092%	0.052%	42.34	44.33		
45	0.116%	0.081%	37.54	39.46		
50	0.149%	0.119%	32.77	34.63		
55	0.247%	0.231%	28.04	29.88		
60	0.489%	0.457%	23.47	25.31		
65	0.961%	0.878%	19.17	21.02		
70	1.641%	1.515%	15.22	17.06		
75	2.854%	2.394%	11.58	13.47		
80	5.265%	3.987%	8.42	10.23		
Ref:	454	x	1.00	455	x	1.00

This assumption is used to measure the probabilities of each benefit payment being made after retirement.

Disabled pension mortality was based on 80% of the PBGC Disabled Mortality tables. The probabilities of disabled mortality at sample attained ages were as follows:

Sample Ages	Probability of Dying Next Year Disabled Death	
	Men	Women
20	3.86%	3.86%
25	3.86%	3.86%
30	2.90%	2.90%
35	2.22%	2.22%
40	2.26%	2.26%
45	2.58%	2.58%
50	3.06%	3.06%
55	3.86%	3.86%
Ref	250	250
	0.80	0.80

Actuarial Assumptions

Teachers (Continued)

For active members dying before retirement, 98% percent are assumed to be ordinary death and 2% percent are assumed to be accidental death. The probabilities of dying prior to retirement at sample attained ages were as follows:

Sample Ages	Probability of Dying Next Year					
	Death Before Retirement					
	Men			Women		
20	0.01%			0.01%		
25	0.01%			0.01%		
30	0.02%			0.01%		
35	0.03%			0.02%		
40	0.04%			0.02%		
45	0.05%			0.03%		
50	0.07%			0.05%		
55	0.11%			0.09%		
Ref	454	x	0.45	455	x	0.40

Actuarial Assumptions

Teachers (Continued)

The rates of retirement used to measure the probability of eligible members retiring during the next year were as follows:

For Members Hired Prior to July 1, 2011

Retirement Ages	% of Active Members Retiring Within Next Year					
	Male			Female		
	Normal	Early	Early Rule X	Normal	Early	Early Rule X
45			1.5%			1.0%
46			1.5%			1.0%
47			1.5%			1.0%
48			1.5%			1.0%
49			1.5%			1.0%
50		1.0%	1.5%		0.5%	1.0%
51		1.0%	1.5%		0.5%	1.0%
52		1.0%	1.5%		0.5%	1.0%
53		1.0%	1.5%		0.5%	1.0%
54		1.0%	3.0%		1.5%	3.0%
55		1.0%	9.0%		2.5%	8.0%
56		3.5%	15.0%		2.5%	13.0%
57		2.0%	16.0%		5.0%	13.0%
58		8.5%	20.0%		6.0%	20.0%
59		6.0%	20.0%		10.0%	20.0%
60	20.5%			17.0%		
61	22.0%			18.0%		
62	23.0%			22.0%		
63	24.0%			23.0%		
64	25.0%			24.0%		
65	26.0%			25.0%		
66	27.0%			30.0%		
67	28.0%			24.0%		
68	29.0%			28.0%		
69	30.0%			29.0%		
70	100.0%			100.0%		
Ref.	1936	1925	1927	1929	1926	1928

Actuarial Assumptions

Teachers (Continued)

The rates of retirement used to measure the probability of eligible members retiring during the next year were as follows:

For Members Hired On or After July 1, 2011

Retirement Ages	% of Active Members Retiring Within Next Year			
	Male		Female	
	Normal	Early	Normal	Early
60		20.5%		17.0%
61		22.0%		18.0%
62		23.0%		22.0%
63		24.0%		23.0%
64		25.0%		24.0%
65	60.0%		60.0%	
66	50.0%		60.0%	
67	40.0%		24.0%	
68	30.0%		28.0%	
69	30.0%		29.0%	
70	100.0%		100.0%	

Actuarial Assumptions

Teachers

(Concluded)

Rates of separation from active membership were as shown below (rates do not apply to members eligible to retire and do not include separation on account of death or disability). This assumption measures the probabilities of members remaining in employment.

Sample Ages	Years of Service	% of Active Members Separating Within Next Year	
		Male	Female
	0	35.00%	33.00%
	1	17.00%	18.00%
	2	14.00%	13.00%
	3	10.00%	11.00%
	4	8.00%	9.00%
25	5+	3.50%	4.50%
30		3.50%	4.50%
35		3.50%	4.50%
40		3.50%	4.50%
45		3.50%	4.50%
50		3.50%	4.50%
55		3.50%	4.50%
60		3.50%	4.50%
Ref.		61	48
		1.75	0.45
		184	676

Rates of disability among active members. 92% percent are assumed to be ordinary disability and 8% percent are assumed to be accidental disability.

Sample Ages	% of Active Members Becoming Disabled Within Next Year	
	Male	Female
20	0.006%	0.000%
25	0.006%	0.000%
30	0.007%	0.000%
35	0.008%	0.003%
40	0.017%	0.015%
45	0.035%	0.024%
50	0.082%	0.045%
55	0.181%	0.141%
Ref	2	66
	0.12	0.30

Actuarial Assumptions

Police

The rates of salary increase used for individual members are in accordance with the following table. This assumption is used to project a member’s current salary to the salaries upon which benefits will be based.

Salary Increase Assumptions For an Individual Member			
Service Index	Merit & Seniority	Base (Economy)	Increase Next Year
1	20.40%	3.75%	24.15%
2	10.40%	3.75%	14.15%
3	7.90%	3.75%	11.65%
4	5.40%	3.75%	9.15%
5	2.90%	3.75%	6.65%
6	2.90%	3.75%	6.65%
7	1.20%	3.75%	4.95%
8	0.90%	3.75%	4.65%
9	0.70%	3.75%	4.45%
10	0.70%	3.75%	4.45%
11	0.60%	3.75%	4.35%
12	0.60%	3.75%	4.35%
13	0.50%	3.75%	4.25%
14	0.50%	3.75%	4.25%
15	0.50%	3.75%	4.25%
16	0.50%	3.75%	4.25%
17	0.50%	3.75%	4.25%
18	0.50%	3.75%	4.25%
19	0.50%	3.75%	4.25%
20	0.50%	3.75%	4.25%
21	0.40%	3.75%	4.15%
22	0.40%	3.75%	4.15%
23	0.40%	3.75%	4.15%
24	0.40%	3.75%	4.15%
25	0.40%	3.75%	4.15%
Ref:	15 - -4.15%		

Actuarial Assumptions

Police (Continued)

The standard mortality table for death after retirement is the RP 2000 mortality table, projected to 2020 with scale AA. The proposed healthy mortality tables include a margin of 15% for men and 17% for women for mortality improvements.

Sample Attained Ages	Probability of Dying Next Year		Future Life Expectancy (years)			
	Men	Women	Men	Women		
35	0.070%	0.038%	47.16	49.23		
40	0.092%	0.052%	42.34	44.33		
45	0.116%	0.081%	37.54	39.46		
50	0.149%	0.119%	32.77	34.63		
55	0.247%	0.231%	28.04	29.88		
60	0.489%	0.457%	23.47	25.31		
65	0.961%	0.878%	19.17	21.02		
70	1.641%	1.515%	15.22	17.06		
75	2.854%	2.394%	11.58	13.47		
80	5.265%	3.987%	8.42	10.23		
Ref:	454	x	1.00	455	x	1.00

This assumption is used to measure the probabilities of each benefit payment being made after retirement.

Disabled pension mortality was based on 80% of the PBGC Disabled Mortality tables. The probabilities of disabled mortality at sample attained ages were as follows:

Sample Ages	Probability of Dying Next Year Disabled Death	
	Men	Women
20	3.86%	3.86%
25	3.86%	3.86%
30	2.90%	2.90%
35	2.22%	2.22%
40	2.26%	2.26%
45	2.58%	2.58%
50	3.06%	3.06%
55	3.86%	3.86%
Ref	250	250
	0.80	0.80

Actuarial Assumptions

Police (Continued)

For active members dying before retirement and disabled retirees, the probabilities of dying at sample attained ages were as follows:

Sample Ages	Probability of Dying Next Year											
	Death Before Retirement											
	Men						Women					
	Ordinary			Duty			Ordinary			Duty		
20	0.009%			0.009%			0.005%			0.005%		
25	0.012%			0.012%			0.006%			0.006%		
30	0.015%			0.015%			0.008%			0.008%		
35	0.026%			0.026%			0.014%			0.014%		
40	0.034%			0.034%			0.020%			0.020%		
45	0.044%			0.044%			0.031%			0.031%		
50	0.056%			0.056%			0.045%			0.045%		
55	0.093%			0.093%			0.087%			0.087%		
Ref	454	x	0	454	x	0	455	x	0	455	x	0
	0.375			0.375			0.375			0.375		

Actuarial Assumptions

Police (Continued)

The rates of retirement used to measure the probability of eligible members retiring during the next year were as follows:

For Members Hired Prior to July 1, 2011 Who Have Vested Status as of January 1, 2012		For Members Hired on or After July 1, 2011 and for Members Hired Prior to July 1, 2011 Who Have Non-Vested Status as of January 1, 2012				
Retirement Ages	% of Active Members Retiring Within Next Year	Age 46 with 21 years	Age 47 with 22 years	Age 48 with 23 years	Age 49 with 24 years	Age 50 with 25 years
45	25%					
46	25%	28%				
47	25%	28%	35%			
48	25%	28%	35%	35%		
49	25%	28%	30%	35%	40%	
50	25%	28%	30%	35%	40%	50%
51	25%	28%	30%	35%	40%	50%
52	25%	28%	30%	35%	40%	50%
53	30%	30%	30%	35%	35%	35%
54	30%	30%	30%	35%	35%	35%
55	30%	30%	30%	30%	35%	35%
56	25%	25%	25%	25%	25%	25%
57	25%	25%	25%	25%	25%	25%
58	30%	30%	30%	30%	30%	30%
59	25%	25%	25%	25%	25%	25%
60	25%	25%	25%	25%	25%	25%
61	20%	20%	20%	20%	20%	20%
62	20%	20%	20%	20%	20%	20%
63	25%	25%	25%	25%	25%	25%
64	25%	25%	25%	25%	25%	25%
65	25%	25%	25%	25%	25%	25%
66	100%	100%	100%	100%	100%	100%

Actuarial Assumptions

Police (Concluded)

Rates of separation from active membership were as shown below (rates do not apply to members eligible to retire and do not include separation on account of death or disability). This assumption measures the probabilities of members remaining in employment.

Sample Ages	Years of Service	% of Active Members Separating Within Next Year	
		Male	Female
	0	30.00%	40.00%
	1	15.00%	17.00%
	2	9.00%	14.00%
	3	6.00%	11.00%
	4	4.00%	9.00%
25	5+	4.00%	4.00%
30		4.00%	4.00%
35		4.00%	4.00%
40		4.00%	4.00%
45		4.00%	4.00%
50		4.00%	4.00%
55		4.00%	4.00%
60		4.00%	4.00%
Ref.		61	61
		2.0	2.0
		7	233

Rates of disability among active members.

Sample Ages	% of Active Members Becoming Disabled Within Next Year	
	Ordinary	Accidental
20	0.04%	0.02%
25	0.04%	0.02%
30	0.04%	0.02%
35	0.08%	0.05%
40	0.18%	0.12%
45	0.32%	0.21%
50	0.50%	0.34%
55	0.75%	0.50%
Ref	35	35
	0.45	0.30

Actuarial Assumptions

Fire

The rates of salary increase used for individual members are in accordance with the following table. This assumption is used to project a member's current salary to the salaries upon which benefits will be based.

Salary Increase Assumptions			
For an Individual Member			
Service Index	Merit & Seniority	Base (Economy)	Increase Next Year
1	20.80%	3.75%	24.55%
2	10.80%	3.75%	14.55%
3	8.30%	3.75%	12.05%
4	5.80%	3.75%	9.55%
5	3.30%	3.75%	7.05%
6	3.30%	3.75%	7.05%
7	1.60%	3.75%	5.35%
8	1.30%	3.75%	5.05%
9	1.10%	3.75%	4.85%
10	1.10%	3.75%	4.85%
11	1.00%	3.75%	4.75%
12	1.00%	3.75%	4.75%
13	0.90%	3.75%	4.65%
14	0.90%	3.75%	4.65%
15	0.90%	3.75%	4.65%
16	0.90%	3.75%	4.65%
17	0.90%	3.75%	4.65%
18	0.90%	3.75%	4.65%
19	0.90%	3.75%	4.65%
20	0.90%	3.75%	4.65%
21	0.80%	3.75%	4.55%
22	0.80%	3.75%	4.55%
23	0.80%	3.75%	4.55%
24	0.80%	3.75%	4.55%
25	0.80%	3.75%	4.55%
Ref:	15 - -4.55%		

Actuarial Assumptions

Fire (Continued)

The standard mortality table for death after retirement is the RP 2000 mortality table, projected to 2020 with scale AA. The proposed healthy mortality tables include a margin of 15% for men and 17% for women for mortality improvements.

Sample Attained Ages	Probability of Dying Next Year		Future Life Expectancy (years)			
	Men	Women	Men	Women		
35	0.070%	0.038%	47.16	49.23		
40	0.092%	0.052%	42.34	44.33		
45	0.116%	0.081%	37.54	39.46		
50	0.149%	0.119%	32.77	34.63		
55	0.247%	0.231%	28.04	29.88		
60	0.489%	0.457%	23.47	25.31		
65	0.961%	0.878%	19.17	21.02		
70	1.641%	1.515%	15.22	17.06		
75	2.854%	2.394%	11.58	13.47		
80	5.265%	3.987%	8.42	10.23		
Ref:	454	x	1.00	455	x	1.00

This assumption is used to measure the probabilities of each benefit payment being made after retirement.

Disabled pension mortality was based on 80% of the PBGC Disabled Mortality tables. The probabilities of disabled mortality at sample attained ages were as follows:

Sample Ages	Probability of Dying Next Year Disabled Death	
	Men	Women
20	3.86%	3.86%
25	3.86%	3.86%
30	2.90%	2.90%
35	2.22%	2.22%
40	2.26%	2.26%
45	2.58%	2.58%
50	3.06%	3.06%
55	3.86%	3.86%
Ref:	250	250
	0.80	0.80

Actuarial Assumptions

Fire (Continued)

Disabled pension mortality was based on 80% of the PBGC Disabled Mortality tables. For active members dying before retirement and disabled retirees, the probabilities of dying at sample attained ages were as follows:

Sample Ages	Probability of Dying Next Year											
	Death Before Retirement											
	Men						Women					
	Ordinary			Duty			Ordinary			Duty		
20	0.01%			0.01%			0.00%			0.00%		
25	0.01%			0.01%			0.00%			0.00%		
30	0.01%			0.01%			0.01%			0.01%		
35	0.02%			0.02%			0.01%			0.01%		
40	0.02%			0.02%			0.01%			0.01%		
45	0.03%			0.03%			0.02%			0.02%		
50	0.04%			0.04%			0.03%			0.03%		
55	0.06%			0.06%			0.06%			0.06%		
Ref	454	x	0.25	454	x	0.25	455	x	0.25	455	x	0.25

Actuarial Assumptions

Fire (Continued)

The rates of retirement used to measure the probability of eligible members retiring during the next year were as follows:

For Members Hired Prior to July 1, 2011 Who Have Vested Status as of January 1, 2012		For Members Hired on or After July 1, 2011 and for Members Hired Prior to July 1, 2011 Who Have Non-Vested Status as of January 1, 2012				
Retirement Ages	% of Active Members Retiring Within Next Year	Age 46 with 21 years	Age 47 with 22 years	Age 48 with 23 years	Age 49 with 24 years	Age 50 with 25 years
45	15%					
46	12%	15%				
47	12%	15%	17%			
48	12%	15%	17%	21%		
49	12%	15%	17%	21%	25%	
50	15%	15%	18%	21%	25%	32%
51	15%	15%	18%	21%	25%	32%
52	15%	15%	18%	21%	25%	32%
53	25%	25%	25%	25%	25%	25%
54	20%	20%	20%	20%	20%	20%
55	30%	30%	30%	30%	30%	30%
56	30%	30%	30%	30%	30%	30%
57	25%	25%	25%	25%	25%	25%
58	25%	25%	25%	25%	25%	25%
59	25%	25%	25%	25%	25%	25%
60	25%	25%	25%	25%	25%	25%
61	40%	40%	40%	40%	40%	40%
62	30%	30%	30%	30%	30%	30%
63	30%	30%	30%	30%	30%	30%
64	30%	30%	30%	30%	30%	30%
65	100%	100%	100%	100%	100%	100%

Actuarial Assumptions

Fire (Concluded)

Rates of separation from active membership were as shown below (rates do not apply to members eligible to retire and do not include separation on account of death or disability). This assumption measures the probabilities of members remaining in employment.

Sample Ages	Years of Service	% of Active Members Separating Within Next Year	
		Male	Female
	0	8.00%	8.00%
	1	6.00%	6.00%
	2	4.50%	4.50%
	3	3.00%	3.00%
	4	2.00%	2.00%
25	5 & Over	1.50%	1.50%
30		1.50%	1.50%
35		1.50%	1.50%
40		1.50%	1.50%
45		1.50%	1.50%
50		1.50%	1.50%
55		1.50%	1.50%
60		1.50%	1.50%
Ref.		151	151
		1.5	1.5
		13	13

Rates of disability among active members.

Sample Ages	% of Active Members Becoming Disabled Within Next Year	
	Ordinary	Accidental
20	0.04%	0.02%
25	0.04%	0.02%
30	0.05%	0.02%
35	0.06%	0.02%
40	0.11%	0.08%
45	0.23%	0.08%
50	0.54%	0.33%
55	1.21%	0.33%
Ref	2	28
	0.80	0.30

Miscellaneous and Technical Assumptions

<i>Administrative & Investment Expenses</i>	The investment return assumption is intended to be the return net of investment expenses. Annual administrative expenses are assumed to be equal to the prior year's administrative expenses. Assumed administrative expenses are added to the Normal Cost, and were 0.35% of payroll in the June 30, 2015 valuation.
<i>Benefit Service</i>	Exact Fractional service is used to determine the amount of benefit payable.
<i>COLA</i>	None assumed.
<i>Decrement Operation</i>	Disability decrements do not operate during retirement eligibility. Only withdrawal operates in the select withdrawal period.
<i>Decrement Timing</i>	Normal and early retirement decrements for the Teachers group are assumed to occur at the beginning of the year. All other decrements for all groups were assumed to occur mid-year.
<i>Eligibility Testing</i>	Eligibility for benefits is determined based upon the age nearest birthday and service nearest whole year on the date the decrement is assumed to occur.
<i>Forfeitures</i>	It is assumed that 25% of members who quit before retirement with 10-15 years of service will elect to refund and forfeit their pension.
<i>Incidence of Contributions</i>	Contributions are assumed to be received continuously throughout the year based upon the computed percent of payroll shown in this report, and the actual payroll payable at the time contributions are made.
<i>Liability Adjustments</i>	Normal, early and vesting retirement liabilities are increased by 9.0%, 7.0%, 12.0% and 12.0% for Employees, Teachers, Police and Fire respectively to account for lump sum payouts. Members hired after July 1, 2011 or who have non-vested status as of January 1, 2012 are assumed to have no adjustment for end of career payments.
<i>Marriage Assumption</i>	Group I: 70% of males and 70% of females are assumed to be married for purposes of death-in-service benefits. Group II: 50% of males and 50% of females are assumed to be married for purposes of death-in-service and death after retirement benefits. Male spouses are assumed to be three years older than female spouses for active member valuation purposes.

Normal Form of Benefit

This valuation assumes that members will elect the normal form of payment. Alternate forms of payment are available and are actuarially adjusted based on the valuation interest and mortality.

Group I: The assumed normal form of benefit is a straight life benefit.

Group II: The assumed normal form of benefit is straight life for single members and joint and 50% survivor for married members.

Pay Increase Timing

Beginning of (Fiscal) year. This is equivalent to assuming that reported pays represent amounts paid to members during the year ended on the valuation date.

Service Credit Accruals

It is assumed that members accrue one year of service credit per year.

Data Adjustments

For the June 30, 2015 valuation, new active member pays were annualized.

For members reported as eligible but not receiving a medical subsidy benefit, we assumed that members would commence benefits at age eligibility. Those members already age eligible but not receiving were excluded from the valuation.

The system underwent a data clean-up process for retiree records. We used the data as submitted without further audit.

Medical Subsidy

The solvency rates for the medical subsidy benefits were determined to provide an estimated margin of 20% of the benefits by June 30, 2018 and thereafter.

A retired member's medical subsidy amount is provided by Plan staff. If the member is under the age of 65, the pre-65 subsidy amount used is the amount reported by Plan staff, and the post-65 subsidy amount is assumed to be at the post-65 rates shown on page 77.

IRC Section 415(b) and 401(a)(17)

For purposes of the valuation, the limitations under IRC Section 401(a)(17) and 415(b) were not reflected due to immateriality.

Plan Provisions – Group I

<i>Statute</i>	Amended and Restated under New Hampshire Revised Statutes Annotated (RSA) Chapter 100-A. Most recently amended under legislation passed in the year ending June 30, 2011.
<i>Effective Date</i>	July 1, 1967
<i>Plan Year</i>	July 1 through June 30
<i>Type of Plan</i>	Qualified, governmental defined benefit retirement plan; it is a single plan for financial reporting purposes.
<i>Eligibility Requirements</i>	Any employee or teacher becomes a Group I member as a condition of employment. Membership is optional for elected officials, officials appointed for fixed terms, unclassified state employees or employees of the general court.
<i>Creditable Service</i>	Service measured from date of employment to date of retirement or prior termination plus service credited under one or more of the predecessor systems.
<i>Earnable Compensation</i>	<p>For members who have attained vested status prior to January 1, 2012, full base rate of compensation paid plus any overtime pay, holiday and vacation pay, sick pay, longevity or severance pay, cost of living bonus, additional pay for extracurricular and instructional activities or any military differential pay, plus the fair market value of non-cash compensation such as meals or living quarters if subject to federal income tax. Earnable compensation in the final 12 months prior to termination shall be limited to 1 ½ times the higher of the earnable compensation in the 12 month period preceding the final 12 months or the highest compensation year excluding the final 12 months.</p> <p>For active members who begin service on or after July 1, 2011 or who are not in vested status on and after January 1, 2012 – Full base rate of compensation paid plus any overtime pay, holiday and vacation pay, sick pay, longevity pay, cost of living bonus, additional pay for extracurricular and instructional activities, and any military differential pay, plus the fair market value of non-cash compensation such as meals or living quarters if subject to federal income tax, but excluding other compensation except supplemental pay paid by the employer while the member is receiving workers' compensation and teacher development pay that is not part of the contracted annual salary. Compensation for extra and special duty, as determined by the employer, shall be eliminated for those hired after July 1, 2011 and shall be included but limited during the highest 5 years of creditable service as provided in paragraph RSA 100-A:1 XVIII as amended.</p>

Plan Provisions – Group I

Earnable compensation shall not include incentives to encourage members to retire, severance pay, or end-of-career longevity payments and pay for unused sick or vacation time. Earnable compensation in the final 12 months prior to termination shall be limited to 1 ½ times the higher of the earnable compensation in the 12 month period preceding the final 12 months or the highest compensation year excluding the final 12 months. The new definition of earnable compensation is applicable January 1, 2012 for those hired before July 1, 2011 and immediately for those hired on or after July 1, 2011.

Average Final Compensation (AFC)

Average annual earnable compensation during the highest 3 years of creditable service.

For active members who commenced service on or after July 1, 2011 or who have non-vested status on or after January 1, 2012 – Average annual earnable compensation during the highest 5 years of creditable service.

Service Retirement

Eligibility: Age 60 years (Age 65 for members commencing service on or after July 1, 2011).

Benefit: A member annuity that is the actuarial equivalent of the member's accumulated contributions plus a state annuity.

Prior to age 65, the state annuity, together with the member annuity, shall be equal to 1/60th of AFC times creditable service (1/66th of AFC times creditable service for members commencing service on or after July 1, 2011).

After age 65, the state annuity, together with the member annuity, shall be equal to 1/66th of AFC times creditable service.

Normal Form: Straight life annuity.

Early Retirement

Eligibility: Completion of 20 years of creditable service and age plus service at least 70, or attainment of age 50. (Age 60 with 30 years of creditable service for members commencing service on or after July 1, 2011.)

Benefit: Service Retirement Benefit accrued to date of retirement, reduced for each month prior to age 60 by 1/8 of 1% if the member has 35 years or more of creditable service, by 1/4 of 1% if the member has 30 years but less than 35, by 1/3 of 1% if the member has at least 25 years but not 30, by 5/12 of 1% if the member has at least 20 years but not 25, and by 5/9 of 1% if the member has less than 20 years of creditable service

For members commencing service on or after July 1, 2011, normal retirement benefit is reduced 1/4 of 1% for each month prior to age 65.

Plan Provisions – Group I

<i>Ordinary Disability</i>	<p>Eligibility: 10 or more years of creditable service.</p> <p>Benefit: Service Retirement Benefit at attained normal retirement eligibility age. Under age 60, a member annuity plus state annuity that shall be equal to 1.5% times AFC times years of creditable service. The disability retirement allowance shall not be less than 25% of AFC.</p>
<i>Accidental Disability</i>	<p>Eligibility: Permanently disabled in the performance of duty.</p> <p>Benefit: Service Retirement Benefit if at least age 60, not less than 50% of AFC. Under age 60, a member annuity plus state annuity that shall be equal to 50% times AFC.</p>
<i>Accidental Death Benefits</i>	<p>Eligibility: Accidental death in the performance of duty.</p> <p>Benefit: 50% times AFC.</p>
<i>Ordinary Death Benefits</i>	<p>Eligibility: Death other than accidental death.</p> <p>Benefit: If 10 years creditable service or eligible for service retirement, surviving spouse receives 50% of the service retirement benefit until death or remarriage. If no surviving spouse, designated beneficiary receives a lump sum equal to the greater of \$3,600 or the member's annual compensation.</p> <p>If less than 10 years creditable service and not eligible for service retirement, the member's spouse or designated beneficiary receives a lump sum equal to the greater of \$3,600 or the member's annual compensation.</p>
<i>Post Retirement Death</i>	<p>Not applicable.</p>
<i>Optional Forms</i>	<p>Each of the following options shall be of equivalent actuarial value to the allowance payable in the absence of election of an option.</p> <p>Option 1. Full cash refund. Option 2. 100% Joint and Survivor. Option 3. 50% Joint and Survivor. Option 4. Other Joint and Survivor.</p>
<i>Vested Termination</i>	<p>If a member terminates with less than 10 years of service, the Member's own contributions are refunded. If a Member terminates with 10 or more years of service, the Member either receives his service retirement or reduced early service retirement benefit beginning at any age after age 50 (age 60 for members hired after July 1, 2011) or the member may apply for a refund of accumulated contributions.</p>

Plan Provisions – Group I

Maximum Benefit

For members who hired prior to July 1, 2009, a member's retirement benefit shall not exceed 100% of the member's highest year of earnable compensation. For members who commenced service on or after July 1, 2009 or are non-vested as of January 1, 2012, a member's retirement benefit shall not exceed the lesser of 85% of the member's highest average final compensation or \$120,000.

Refunds

1. Termination for reasons other than retirement or death and the member has not elected a vested deferred retirement benefit.
2. Upon death in service other than accidental death described above, the member's accumulated contributions are payable to the beneficiary or estate.
3. Upon death prior to age 60 of a member electing vested deferred retirement, the member's accumulated contributions are payable to the beneficiary or estate.
4. Upon death of a retired member prior to electing an optional allowance, any excess of the member's accumulated contributions at retirement over the sum of retirement allowance payments received.

Member Contributions

7.0% of earnable compensation. Interest on member contributions shall be 2 percentage points less than either the most recent board of trustees approved assumed rate of return determined under RSA 100-A:16, II(h) or the actual rate of return, whichever is lower.

Employer Contributions

As prescribed in RSA 100-A:16.

Temporary Supplemental Allowances

None.

Other Ancillary Benefits

There are no ancillary benefits - retirement type benefits not required by statutes but which might be deemed a liability if continued beyond the availability of funding by the current funding source.

Plan Provisions – Group II

<i>Statute</i>	Amended and Restated under New Hampshire Revised Statutes Annotated (RSA) Chapter 100-A. Most recently amended under legislation passed in the year ending June 30, 2011.
<i>Effective Date</i>	July 1, 1967
<i>Plan Year</i>	July 1 through June 30
<i>Type of Plan</i>	Qualified, governmental defined benefit retirement plan; it is a single plan for financial reporting purposes.
<i>Eligibility Requirements</i>	Any permanent policeman or permanent fireman becomes a Group II member as a condition of employment.
<i>Creditable Service</i>	Service measured from date of employment to date of retirement or prior termination plus service credited under one or more of the predecessor systems.
<i>Earnable Compensation</i>	<p>Full base rate of compensation paid plus any overtime pay, holiday and vacation pay, sick pay, longevity or severance pay, cost of living bonus, additional pay for extracurricular and instructional activities or for other extra or special duty, and other compensation paid to the member by the employer, plus the fair market value of non-cash compensation such as meals or living quarters if subject to federal income tax. Earnable compensation in the final 12 months prior to termination shall be limited to 1 ½ times the higher of the earnable compensation in the 12 month period preceding the final 12 months or the highest compensation year excluding the final 12 months.</p> <p>For active members who begin service on or after July 1, 2011 or who are not in vested status on and after January 1, 2012 – Full base rate of compensation paid plus any overtime pay, holiday and vacation pay, sick pay, longevity pay, cost of living bonus, additional pay for extracurricular and instructional activities, and any military differential pay, plus the fair market value of non-cash compensation such as meals or living quarters if subject to federal income tax, but excluding other compensation except supplemental pay paid by the employer while the member is receiving workers' compensation and teacher development pay that is not part of the contracted annual salary. Compensation for extra and special duty, as determined by the employer, shall be eliminated for those hired after July 1, 2011 and shall be included but limited during the highest 5 years of creditable service as provided in paragraph RSA 100-A:1 XVIII as amended.</p>

Plan Provisions – Group II

Earnable compensation shall not include incentives to encourage members to retire, severance pay, or end-of-career longevity payments and pay for unused sick or vacation time. Earnable compensation in the final 12 months prior to termination shall be limited to 1 ½ times the higher of the earnable compensation in the 12 month period preceding the final 12 months or the highest compensation year excluding the final 12 months. The new definition of earnable compensation is applicable January 1, 2012 for those hired before July 1, 2011 and immediately for those hired on or after July 1, 2011.

Average Final Compensation (AFC)

Average annual earnable compensation during the highest 3 years of creditable service.

For active members who commenced service on or after July 1, 2011 or who have non-vested status on or after January 1, 2012 – Average annual earnable compensation during the highest 5 years of creditable service.

Service Retirement

Eligibility: Age 45 and 20 years of creditable service or age 60 (age 50 with 25 years of creditable service or age 60 for members commencing service on or after July 1, 2011).

Benefit: A member annuity that is the actuarial equivalent of the member’s accumulated contributions plus a state annuity.

The state annuity, together with the member annuity, shall be equal to 2-1/2% of AFC times creditable service up to 40 years (2% of AFC times creditable service up to 42.5 years for members commencing service on or after July 1, 2011. However, a member who commenced service on or after July 1, 2011 shall not receive a service retirement allowance until attaining the age of 52.5, but may receive a reduced allowance after age 50 if the member has at least 25 years of creditable service where the allowance shall be reduced, for each month by which the benefit commencement date precedes the month after which the member attains 52.5 years of age, by ¼ of 1%.)

Members hired prior to July 1, 2011 who have non-vested status as of January 1, 2012 shall be subject to the following transition provisions for years of service required for regular service retirement, the minimum age for regular service retirement, and the multiplier used to calculate the retirement annuity, which shall be applicable on January 1, 2012 according to the following table:

<i>Creditable Service on January 1, 2012</i>	<i>Minimum Years of Service</i>	<i>Minimum Age Attained</i>	<i>Annuity Multiplier</i>
(1) Less than 4 years	24 Years	Age 49	2.1%
(2) At least 4 years but less than 6 years	23 Years	Age 48	2.2%
(3) At least 6 years but less than 8 years	22 Years	Age 47	2.3%
(4) At least 8 years but less than 10 years	21 Years	Age 46	2.4%

Plan Provisions – Group II

A member retiring at age 45 with 20 years of service shall receive a minimum annual service retirement allowance of \$10,000.

Normal Form: straight life annuity (with surviving spouse's benefit payable as described under post-retirement death benefit).

Ordinary Disability

Eligibility: 10 or more years of creditable service.

Benefit: Service Retirement Benefit. The disability retirement allowance shall not be less than 25% of the member's final compensation at the date of the member's disability.

Accidental Disability

Eligibility: Permanently disabled in the performance of duty.

Benefit:

Members hired prior to July 1, 2011 who have vested status as of January 1, 2012 are eligible for an accidental disability benefit and shall receive a benefit equal to $\frac{2}{3}$ of AFC. If a member has more than $26\frac{2}{3}$ years of service, the member will receive a supplemental disability benefit equal to $2\frac{1}{2}\%$ of AFC times years of creditable service in excess of $26\frac{2}{3}$ years but not in excess of 40 years.

Members commencing service on or after July 1, 2011 are eligible for an accidental disability benefit and shall receive a benefit equal to $\frac{2}{3}$ of AFC. If a member has more than $33\frac{1}{3}$ years of service, the member will receive a supplemental disability benefit equal to 2% of AFC times years of creditable service in excess of $33\frac{1}{3}$ years but not in excess of 42.5 years.

Members hired prior to July 1, 2011 who have non-vested status as of January 1, 2012 are eligible for an accidental disability benefit and shall receive a benefit equal to $\frac{2}{3}$ of AFC. The calculation of the supplemental allowance shall be as provided in the transition provisions with the number of years for the supplement adjusted proportionally.

Accidental Death Benefits

Eligibility: Accidental death in the performance of duty.

Benefit: 50% times the member's annual rate of earnable compensation at the date of the member's death.

Plan Provisions – Group II

Ordinary Death Benefits

Eligibility: Death other than accidental death.

Benefit: If 10 years creditable service or eligible for service retirement, surviving spouse receives 50% of the service retirement benefit until death or remarriage. If no surviving spouse, designated beneficiary receives a lump sum equal to the greater of \$3,600 or the member's annual compensation.

If less than 10 years creditable service and not eligible for service retirement, the member's spouse or designated beneficiary receives a lump sum equal to the greater of \$3,600 or the member's annual compensation.

Post Retirement Death

Retired prior to April 1, 1987, lump sum of \$3,600 or in the case of accidental disability, 50% of the accidental disability benefit payable to surviving spouse.

Retired on or after April 1, 1987, benefit payable to surviving spouse until death or remarriage equal to 50% of the member's service, ordinary disability or accidental disability retirement allowance plus a lump sum as defined below.

Retired on or after April 1, 1987, but before July 1, 1988, hired before July 1, 1988, lump sum of \$3,600.

Retired on or after July 1, 1988, hired before July 1, 1988, lump sum of \$10,000.

Retired on or after July 1, 1988, hired on or after July 1, 1988 but before July 1, 1993, lump sum of \$3,600.

Optional Forms

Each of the following options shall be of equivalent actuarial value to the straight life allowance payable in the absence of election of an option.

Option 1. Full cash refund.

Option 2. Not applicable.

Option 3. 50% Joint and Survivor.

Option 4. Other Joint and Survivor, not to exceed 50%.

Vested Termination

If a member terminates with less than 10 years of service, the Member's own contributions are refunded. If a Member terminates with 10 or more years of service, the Member either receives his service retirement at the age the member would have attained service or reduced early service retirement eligibility requirement, or age 60 or the member may apply for a refund of accumulated contributions.

Plan Provisions – Group II

Maximum Benefit

For members who hired prior to July 1, 2009, a member's retirement benefit shall not exceed 100% of the member's highest year of earnable compensation. For members who commenced service on or after July 1, 2009 or are non-vested as of January 1, 2012, a member's retirement benefit shall not exceed the lesser of 85% of the member's highest average final compensation or \$120,000.

Refunds

1. Termination for reasons other than retirement or death and the member has not elected a vested deferred retirement benefit.
2. Upon death in service other than accidental death described above, the member's accumulated contributions are payable to the beneficiary or estate.
3. Upon death prior to commencement of benefits of a member electing vested deferred retirement, the member's accumulated contributions are payable to the beneficiary or estate.
4. Upon death of a survivor of a member retired on accidental disability with spouse receiving accidental disability survivor benefits, the excess of the member's accumulated contributions at retirement over the sum of payments received.
5. Upon death of a retired member prior to electing an optional allowance, any excess of the member's accumulated contributions at retirement over the sum of retirement allowance payments received.

Member Contributions

Fire members: 11.80% of earnable compensation.
Police members: 11.55% of earnable compensation.

Member contributions cease for members who are in vested status before January 1, 2012 with creditable service in excess of 40 years. Member contributions cease for all other Group II members with creditable service in excess of 42.5 years.

Interest on member contributions shall be 2 percentage points less than either the most recent board of trustees approved assumed rate of return determined under RSA 100-A:16, II(h) or the actual rate of return, whichever is lower.

Employer Contributions

As prescribed in RSA 100-A:16.

Temporary Supplemental Allowances

None.

Other Ancillary Benefits

There are no ancillary benefits - retirement type benefits not required by statutes but which might be deemed a liability if continued beyond the availability of funding by the current funding source.

History of Recent Changes in Plan Provisions

2014 Legislative Session

House Bill No. 1494:

This bill: (1) adds definitions of terms used in RSA 100-A and clarifies existing definitions; (2) revises the procedure for calculating the cost of purchasing credit for certain types of prior service; (3) clarifies the ability to earn service credit while on a salary continuance plan; (4) corrects an inconsistency in the statute regarding the approval date of the comprehensive annual financial report; (5) adds penalties for employers who fail to remit correct data in a timely manner; and (6) repeals obsolete provisions.

2012 Legislative Session

- (a) Modifies the calculation of Average Final Compensation (AFC) for members not vested prior to Jan. 1, 2012, by changing the “compensation over base pay” factor used in the AFC formula from a dollar average to a percentage average.
- (b) Clarifies the date from which NHRS must begin calculating a 7-year average of Extra or Special Duty Pay for Group II (Police and Fire) members vested prior to Jan. 1, 2012. This change excludes from the calculation any months prior to July 1, 2009, which is when ESDP began to be separately reported to NHRS.
- (c) Clarifies the number of years of creditable service Group II (Police and Fire) members in service prior to July 1, 2011, but not vested prior to Jan. 1, 2012, must have in order to qualify for the supplemental disability benefit available to eligible Accidental Disability retirees.
- (d) Changes the annual effective date of changes to the member interest rate from a fiscal year to a calendar year.
- (e) Clarifies the definition of “compensation over base pay” for members not vested prior to Jan. 1, 2012.
- (f) Clarifies that the maximum benefit limit for members hired before July 1, 2009, is 100 percent of Earnable Compensation and the maximum benefit limit for members hired after that date, and not vested by Jan. 1, 2012, is the lesser of 85 percent of AFC or \$120,000 per year.
- (g) Modifies the definition of “part-time” for NHRS retirees employed by NHRS-participating employers.
- (h) Changes the date by which NHRS Trustees must approve the retirement system’s Comprehensive Annual Financial Report from Dec. 1 to Dec. 31 of each year.

History of Recent Changes in Plan Provisions (Continued)

- (i) RSA 100-A:53, II; RSA 100-A:53-e, II; RSA 100-A:16, II(h); and RSA 100-A:16, II(j), relative to the Special Account, are repealed.
- (j) RSA 100-A:16, III-a, commonly known as the employer “spiking” assessment, is repealed.

2011 Legislative Session:

Legislation enacted in the 2011 legislative session is summarized below:

House Bill No. 2 as Amended by 2011-2513-CofC:

- (a) Change the definition of Earnable Compensation for active members who begin service on or after July 1, 2011 or who are not in vested status on and after January 1, 2012.
- (b) For active members who commenced service on or after July 1, 2011 or who have non-vested status on or after January 1, 2012 AFC equals the average annual earnable compensation during the highest 5 years of creditable service.
- (c) For members who commenced service on or after July 1, 2009 or are non-vested as of January 1, 2012, a member’s retirement benefit shall not exceed the lesser of 85% of the member’s highest average final compensation or \$120,000.
- (d) Group I members commencing service on or after July 1, 2011 are eligible to retire at age 65 and are eligible for a reduced annuity at age 60 with 30 years of creditable service. Prior to age 65, the state annuity, together with the member annuity, shall be equal to 1/66th of AFC times creditable service reduced for each month prior to the month after the member attains age 65 by 1/4 of 1%. After age 65, the state annuity, together with the member annuity, shall be equal to 1/66th of AFC times creditable service, reduced for each month prior to the month after the member attains age 65 by 1/4 of 1%.
- (e) Group II members commencing service on or after July 1, 2011 are eligible to retire at age 50 with 25 years of creditable service or age 60. The benefit shall be equal to 2% of AFC times creditable service up to 42.5 years. However, a member who commenced service on or after July 1, 2011 shall not receive a service retirement allowance until attaining the age of 52.5, but may receive a reduced allowance after age 50 if the member has at least 25 years of creditable service where the allowance shall be reduced, for each month by which the benefit commencement date precedes the month after which the member attains 52.5 years of age, by 1/4 of 1%.
- (f) Group II members hired prior to July 1, 2011 who have non-vested status as of January 1, 2012 shall be subject to transition provisions for years of service required for regular service retirement, the minimum age for regular service retirement, and the multiplier used to calculate the retirement annuity, which shall be applicable on January 1, 2012.

History of Recent Changes in Plan Provisions (Continued)

- (g) Group II members commencing service on or after July 1, 2011 are eligible for an accidental disability benefit and shall receive a benefit equal to $\frac{2}{3}$ of AFC. If a member has more than $33\frac{1}{3}$ years of service, the member will receive a supplemental disability benefit equal to 2% of AFC times years of creditable service in excess of $33\frac{1}{3}$ years but not in excess of 42.5 years.
- (h) *Member Contributions*
 - Group I members: 7.0% of earnable compensation.
 - Group II fire members: 11.80% of earnable compensation.
 - Group II police members: 11.55% of earnable compensation.
 - Group II member contributions cease for members who are in vested status before January 1, 2012 with creditable service in excess of 40 years. Member contributions cease for all other Group II members with creditable service in excess of 42.5 years.
- (i) *Medical Subsidy* – After July 1, 2007 and including each July 1, thereafter, the rate payable shall not be increased.
- (j) Interest on the individual accounts of members in the member annuity savings fund shall be credited interest at 2 percentage points less than either the most recent board of trustees approved assumed rate of return determined under RSA 100-A:16, II(h) or the actual rate of return, whichever is lower for the immediately preceding fiscal year as reported in the CAFR as approved and accepted by the board of trustees by December 1, of each year, provided the rate shall not be less than zero.
- (k) Any retired member who is receiving a medical subsidy under RSA 100-A:52 or RSA 100-A:52-a shall be entitled to receive an additional supplemental allowance. The amount of the additional temporary supplemental allowance shall be \$500 for retirees taking a one-person medical benefit and \$1,000 for retirees taking a 2-person medical benefit, paid from the respective component of the reserve for TSAs. The supplemental allowance shall apply only for the fiscal years beginning July 1, 2008 up to and including the fiscal year beginning July 1, 2012.
- (l) Transfer the balance in each special account component (Employees, Teachers, Police and Fire) to the corresponding components of the State annuity accumulation fund except for funds necessary to comply with RSA 100-A:41-d, III as amended.

History of Recent Changes in Plan Provisions (Concluded)

2010 Legislative Session:

Legislation enacted in the 2010 legislative session is summarized below:

- (a) **Special Session House Bill No. 1: COLA, TSA approved** - Provides cost-of-living adjustments (COLAs) and temporary supplemental allowances (TSAs) for eligible retirees or beneficiaries;
- (b) **Senate Bill 504: “Spiking” provision deferred** - Extends the effective date of the 2008 legislation creating the so-called “spiking” provision (125% assessment) from July 1, 2010 to July 1, 2011. A study commission continues to evaluate proposals for the assessment methodology;
- (c) **House Bill 1668: State medical subsidy insurance for Group II members [RSA 21-I30]** - Requires Group II (Police and Fire) members whose service with a state agency or department began on or after July 1, 2010, complete at least 20 years of creditable service with the state in order to qualify for post-retirement state medical subsidy insurance coverage.

Medical Subsidy Plan Provisions

Subsidy Benefits as of July 1, 2007 and thereafter are as follows:

	Monthly Amounts	
	Pre-65	Post-65
Single	\$375.56	\$236.84
Couple	\$751.12	\$473.68

The above amounts will not increase.

The following Group I members and their qualified spouses are eligible for coverage under the postretirement medical plan:

- Employee and Teacher members of political subdivisions who are eligible to retire as of July 1, 2008, on Service, Early Service or Ordinary Disability, have at least 20 years of credited service as of July 1, 2008 and who actually retire on or before July 1, 2009 would become eligible for the medical subsidy at age 60 with at least 20 years of creditable service; or as early as age 55 with at least 30 years of creditable service.
- Employee and Teacher members of political subdivisions who are eligible to retire as of July 1, 2008, on Vested Deferred retirement and who actually retire on or before July 1, 2009 would become eligible for the medical subsidy at age 60 with at least 20 years of creditable service; or as early as age 55 with at least 30 years of creditable service.
- Employee and Teacher members of political subdivisions who retired on Accidental Disability Retirement on or before July 1, 2004.
- Employee members of the State who retired on or before July 1, 2004, on Service, Ordinary Disability or Vested Deferred Retirement would become eligible for the medical subsidy at age 60 with at least 20 years of creditable service; or as early as age 55 with at least 30 years of creditable service.
- Employee and Teacher members of political subdivisions who are eligible to retire as of July 1, 2008 and who actually retire on or before July 1, 2009, on Service, Early Service, Vested Deferred or Ordinary Disability retirement after completing at least 20 years of creditable service and who subsequently attain age 60 or after completing at least 30 years of creditable service and who subsequently attain age 55.
- Surviving spouses of deceased Employee and Teacher members of political subdivisions who die while in service and would otherwise have been eligible for a medical subsidy benefit, provided that such surviving spouse was covered as the member's spouse in the employer-sponsored plan before the member's death and is entitled to a monthly allowance under Accidental Death, Ordinary Death, or an Optional Allowance.
- Surviving spouses and children of Employee and Teacher members of political subdivisions who die as the natural and proximate result of injuries suffered while in the performance of duty. Eligibility for the medical subsidy ceases when the dependent child attains age 18, or age 23 if attending school on a full-time basis.

Medical Subsidy Plan Provisions

- Surviving spouses and children of Employee members of the State who died as the natural and proximate result of injuries suffered while in the performance of duty. Payment of the subsidy ceases when the dependent child attains age 18 or age 23, if attending school on a full-time basis.
- Vested terminated Employee members of the State (and spouses) who completed at least 20 years of creditable service and prior to July 1, 2004 receives an allowance and who subsequently attains age 60.
- Employee members of the State (and spouses) who retire after completing at least 20 years of creditable service and who subsequently attains age 60 before July 1, 2004 or after completing at least 30 years of creditable service and who subsequently attains age 55 before July 1, 2004.
- Surviving spouses of deceased Employee members of the State who died while in service on or before July 1, 2004, provided that such surviving spouse was covered as the member's spouse in the employer-sponsored plan before the member's death and is entitled to a monthly allowance under Accidental Death, Ordinary Death, or an Optional Allowance.
- Any certifiably dependent child with a disability living in the household and being cared for by the qualified retired member, member's spouse, or qualified surviving spouse would also qualify.

The following Group II members are eligible for the postretirement medical premium subsidy:

- Active or Retired Group II police officer members (or beneficiaries) as of June 30, 2000.
- Active or Retired Group II firefighter members (or beneficiaries) as of June 30, 2000.
- Persons who prior to July 1, 1988 had completed at least 20 years of Group II service and are eligible as of July 1, 1993 for a vested deferred retirement benefit.
- Group II members retired as of July 1, 1991 with a split benefit under RSA 100-A:19-c who have at least 10 years of Group II service.
- Group II members as of June 30, 2005 who subsequently became disabled while in the performance of duty at any time in the future.
- Surviving spouses of deceased Group II members who retired prior to April 1, 1987 and who are not receiving a monthly allowance.

The System subsidy covers the retired member's spouse and any of the retired member's certifiably dependent and disabled children.

It is the legislative intent that future members shall be included only to the extent that the total cost can be terminally funded.

SECTION D

STATISTICAL SECTION

Historical Membership Data - Retired
(Dollars In Thousands)

Fiscal Year	Added to Rolls		Removed from Rolls		Rolls End of Year		Average Annual Allowances	Average Annual % Increase in Annual Allowances
	No.**	Annual Allowances*	No.	Annual Allowances	No.	Annual Allowances		
2005					18,950	\$ 296,354	\$ 15,639	
2007	3,211	\$ 73,490	913	\$ 12,081	21,248	357,763	16,837	N/A
2008	2,216	53,600	594	10,923	22,870	400,440	17,509	3.99%
2009	2,152	51,234	521	8,349	24,501	443,325	18,094	3.34%
2010	2,161	50,732	817	12,002	25,845	482,055	18,652	3.08%
2011	1,965	42,344	680	10,051	27,130	514,348	18,959	1.65%
2012	2,073	41,213	749	11,543	28,454	544,018	19,119	0.84%
2013	2,153	43,865	878	14,738	29,729	573,145	19,279	0.84%
2014	2,105	42,200	780	12,676	31,054	602,669	19,407	0.66%
2015	# 2,731	54,769	2,435	20,416	31,350	637,022	20,320	4.70%

* Includes additional COLA allowances. The benefit amounts shown are the monthly benefits as of the valuation date annualized and are not the actual benefits paid during the fiscal year.

** Includes beneficiaries in receipt but excludes deferred vested terminations.

As part of a data cleaning process, some records for individual participants were merged into one record; others were split to reflect split benefits.

Retirees and Beneficiaries Age Distribution Employees

SERVICE RETIREMENTS

Age Group	Males			Females		
	Number	Amount	Average	Number	Amount	Average
40 - 44		\$ -	\$ -	1	\$ 1,373	\$ 1,373
45 - 49	22	121,678	5,531	12	116,087	9,674
50 - 54	72	848,974	11,791	69	859,957	12,463
55 - 59	244	4,500,898	18,446	267	4,609,884	17,265
60 - 64	903	20,454,636	22,652	1,211	19,945,774	16,470
65 - 69	1,514	26,806,377	17,706	2,065	26,850,804	13,003
70 - 74	1,223	18,474,637	15,106	1,618	17,349,930	10,723
75 - 79	772	10,049,388	13,017	959	8,792,454	9,168
80 - 84	534	7,086,110	13,270	660	5,678,464	8,604
85 - 89	296	3,638,713	12,293	393	3,096,741	7,880
90 - 94	115	1,177,405	10,238	166	1,204,851	7,258
95 - 99	17	118,298	6,959	29	157,707	5,438
100 & Over	1	3,215	3,215	6	41,717	6,953
TOTAL	5,713	\$ 93,280,329	\$ 16,328	7,456	\$ 88,705,743	\$ 11,897

DISABILITY RETIREMENTS

Age Group	Males			Females		
	Number	Amount	Average	Number	Amount	Average
30 - 34	1	\$ 14,085	\$ 14,085	1	\$ 21,492	\$ 21,492
35 - 39				4	52,393	13,098
40 - 44	6	88,772	14,795	4	54,196	13,549
45 - 49	26	397,656	15,294	18	213,212	11,845
50 - 54	39	555,215	14,236	52	650,367	12,507
55 - 59	74	1,065,946	14,405	86	1,052,244	12,235
60 - 64	92	1,360,572	14,789	119	1,529,955	12,857
65 - 69	85	1,132,374	13,322	102	1,155,746	11,331
70 - 74	55	802,248	14,586	59	684,944	11,609
75 - 79	25	274,233	10,969	24	320,145	13,339
80 - 84	14	180,199	12,871	11	172,214	15,656
85 - 89	3	55,682	18,561	7	74,210	10,601
90 - 94	2	23,256	11,628	2	30,172	15,086
95 - 99						
100 & Over						
TOTAL	422	\$ 5,950,238	\$ 14,100	489	\$ 6,011,290	\$ 12,293

Retirees and Beneficiaries Age Distribution Employees

BENEFICIARIES OF DECEASED MEMBERS

Age Group	Males			Females		
	Number	Amount	Average	Number	Amount	Average
Under 20	1	\$ 1,774	\$ 1,774	2	\$ 6,839	\$ 3,420
20 - 24	1	3,603	3,603	3	10,940	3,647
25 - 29	1	1,921	1,921	1	1,774	1,774
30 - 34	4	12,078	3,020	2	6,539	3,270
35 - 39	1	13,510	13,510	5	29,972	5,994
40 - 44	3	15,539	5,180	8	34,282	4,285
45 - 49	9	34,657	3,851	16	96,467	6,029
50 - 54	13	62,541	4,811	22	130,977	5,954
55 - 59	11	67,977	6,180	53	665,324	12,553
60 - 64	38	187,991	4,947	95	1,111,433	11,699
65 - 69	37	286,883	7,754	133	1,499,043	11,271
70 - 74	28	208,506	7,447	162	2,065,495	12,750
75 - 79	39	270,175	6,928	189	2,427,046	12,842
80 - 84	23	155,327	6,753	217	2,550,422	11,753
85 - 89	24	174,535	7,272	155	1,493,069	9,633
90 - 94	7	35,859	5,123	84	708,477	8,434
95 - 99				14	95,161	6,797
100 & Over				2	20,234	10,117
TOTAL	240	\$ 1,532,876	\$ 6,387	1,163	\$ 12,953,494	\$ 11,138

Retirees and Beneficiaries Age Distribution Teachers

SERVICE RETIREMENTS

Age Group	Males			Females		
	Number	Amount	Average	Number	Amount	Average
45 - 49				3	\$ 64,280	\$ 21,427
50 - 54	9	\$ 149,901	\$ 16,656	32	421,841	13,183
55 - 59	74	1,990,640	26,901	206	4,586,453	22,264
60 - 64	484	14,400,594	29,753	1,504	39,662,322	26,371
65 - 69	1,003	26,386,519	26,308	2,529	59,333,682	23,461
70 - 74	650	15,398,217	23,690	1,379	28,043,608	20,336
75 - 79	356	8,858,853	24,884	733	14,092,436	19,226
80 - 84	235	5,645,607	24,024	434	8,499,580	19,584
85 - 89	94	2,002,534	21,304	214	3,808,045	17,795
90 - 94	18	291,590	16,199	118	1,768,534	14,988
95 - 99	4	66,628	16,657	51	599,174	11,749
100 & Over				10	125,268	12,527
TOTAL	2,927	\$ 75,191,083	\$ 25,689	7,213	\$ 161,005,223	\$ 22,322

DISABILITY RETIREMENTS

Age Group	Males			Females		
	Number	Amount	Average	Number	Amount	Average
40 - 44	1	\$ 13,728	\$ 13,728	3	\$ 49,223	\$ 16,408
45 - 49	1	19,647	19,647	3	37,042	12,347
50 - 54	2	46,654	23,327	10	138,700	13,870
55 - 59	4	57,226	14,307	20	372,068	18,603
60 - 64	4	55,890	13,973	28	506,121	18,076
65 - 69	9	156,265	17,363	30	538,328	17,944
70 - 74	11	239,141	21,740	24	404,154	16,840
75 - 79	3	56,880	18,960	13	221,574	17,044
80 - 84	8	153,072	19,134	7	117,732	16,819
85 - 89	1	10,074	10,074	4	50,511	12,628
90 - 94	1	10,171	10,171	4	47,378	11,845
95 - 99				2	26,654	13,327
100 & Over						
TOTAL	45	\$ 818,748	\$ 18,194	148	\$ 2,509,485	\$ 16,956

Retirees and Beneficiaries Age Distribution
Teachers

BENEFICIARIES OF DECEASED MEMBERS

Age Group	Males			Females		
	Number	Amount	Average	Number	Amount	Average
25 - 29		\$ -	\$ -	1	\$ 13,182	\$ 13,182
30 - 34	1	4,741	4,741	2	17,705	8,853
35 - 39	3	26,050	8,683	2	7,987	3,994
40 - 44	3	36,459	12,153	1	3,154	3,154
45 - 49	6	53,090	8,848	5	48,569	9,714
50 - 54	9	77,357	8,595	5	46,486	9,297
55 - 59	7	68,531	9,790	15	290,652	19,377
60 - 64	19	307,347	16,176	37	620,604	16,773
65 - 69	36	638,962	17,749	65	1,381,166	21,249
70 - 74	35	491,952	14,056	60	1,416,843	23,614
75 - 79	27	483,185	17,896	58	1,458,432	25,145
80 - 84	19	312,696	16,458	51	1,103,420	21,636
85 - 89	10	148,408	14,841	24	468,683	19,528
90 - 94	5	84,135	16,827	13	114,319	8,794
95 - 99				6	72,352	12,059
100 & Over				1	13,847	13,847
TOTAL	180	\$2,732,913	\$15,183	346	\$7,077,401	\$20,455

Retirees and Beneficiaries Age Distribution Police

SERVICE RETIREMENTS

Age Group	Males			Females		
	Number	Amount	Average	Number	Amount	Average
40 - 44				7	\$ 91,424	\$ 13,061
45 - 49	187	\$ 9,379,373	\$ 50,157	42	1,244,215	29,624
50 - 54	376	19,237,922	51,165	78	1,934,662	24,803
55 - 59	434	20,809,143	47,947	69	1,609,296	23,323
60 - 64	400	16,648,236	41,621	80	1,514,772	18,935
65 - 69	369	13,713,892	37,165	64	1,103,079	17,236
70 - 74	218	6,753,509	30,979	47	618,214	13,153
75 - 79	144	4,228,182	29,362	15	235,806	15,720
80 - 84	75	1,911,780	25,490	14	220,521	15,752
85 - 89	35	923,532	26,387	5	83,590	16,718
90 - 94	1	9,091	9,091			
95 - 99	2	73,523	36,762	1	5,901	5,901
100 & Over						
TOTAL	2,241	\$ 93,688,183	\$ 41,806	422	\$ 8,661,480	\$ 20,525

DISABILITY RETIREMENTS

Age Group	Males			Females		
	Number	Amount	Average	Number	Amount	Average
25 - 29				1	\$ 9,349	\$ 9,349
30 - 34	2	\$ 75,945	\$ 37,973	1	40,235	40,235
35 - 39	8	279,759	34,970	2	61,242	30,621
40 - 44	13	484,633	37,279	2	75,262	37,631
45 - 49	37	1,456,993	39,378	3	121,420	40,473
50 - 54	42	1,366,439	32,534	10	332,969	33,297
55 - 59	48	1,612,192	33,587	11	302,216	27,474
60 - 64	43	1,347,691	31,342	6	171,365	28,561
65 - 69	50	1,495,311	29,906	13	303,686	23,360
70 - 74	38	1,184,037	31,159	2	48,562	24,281
75 - 79	15	421,028	28,069	2	25,529	12,765
80 - 84	8	194,920	24,365	1	21,995	21,995
85 - 89	2	52,343	26,172			
90 - 94						
95 - 99	2	24,381	12,191			
100 & Over						
TOTAL	308	\$ 9,995,672	\$ 32,453	54	\$ 1,513,830	\$ 28,034

Retirees and Beneficiaries Age Distribution Police

BENEFICIARIES OF DECEASED MEMBERS

Age Group	Males			Females		
	Number	Amount	Average	Number	Amount	Average
20 - 24	2	\$ 21,642	\$ 10,821			
25 - 29	1	11,314	11,314			
30 - 34				1	\$ 11,314	\$ 11,314
40 - 44				4	59,455	14,864
45 - 49	4	53,388	13,347	6	174,611	29,102
50 - 54	2	16,824	8,412	21	470,081	22,385
55 - 59	3	38,122	12,707	22	496,089	22,550
60 - 64	5	111,720	22,344	36	655,495	18,208
65 - 69	4	49,789	12,447	55	1,241,190	22,567
70 - 74	2	34,094	17,047	70	1,263,329	18,048
75 - 79	1	1,395	1,395	65	808,449	12,438
80 - 84	7	41,282	5,897	46	685,234	14,896
85 - 89	4	39,709	9,927	43	502,827	11,694
90 - 94				20	263,470	13,174
95 - 99	1	12,498	12,498	6	60,694	10,116
100 & Over				1	18,901	18,901
TOTAL	36	\$ 431,777	\$ 11,994	396	\$ 6,711,139	\$ 16,947

Retirees and Beneficiaries Age Distribution Fire

SERVICE RETIREMENTS						
Age Group	Males			Females		
	Number	Amount	Average	Number	Amount	Average
40 - 44				3	\$ 26,473	\$ 8,824
45 - 49	58	\$ 2,879,734	\$49,651	8	140,172	17,522
50 - 54	122	6,520,839	53,450	24	409,156	17,048
55 - 59	212	11,521,573	54,347	22	343,810	15,628
60 - 64	253	12,051,869	47,636	30	423,635	14,121
65 - 69	147	6,477,833	44,067	9	171,306	19,034
70 - 74	105	4,172,135	39,735	5	55,173	11,035
75 - 79	70	2,335,972	33,371	3	47,821	15,940
80 - 84	42	1,158,254	27,577			
85 - 89	21	542,926	25,854	1	25,849	25,849
90 - 94	6	191,718	31,953			
95 - 99	1	14,896	14,896			
100 & Over						
TOTAL	1,037	\$47,867,749	\$46,160	105	\$1,643,395	\$15,651

DISABILITY RETIREMENTS						
Age Group	Males			Females		
	Number	Amount	Average	Number	Amount	Average
25 - 29	1	\$ 19,303	\$ 19,303			
35 - 39	1	46,784	46,784			
40 - 44	3	70,608	23,536			
45 - 49	6	230,614	38,436			
50 - 54	14	457,943	32,710	2	\$ 67,631	\$ 33,816
55 - 59	14	482,558	34,468	2	67,353	33,677
60 - 64	19	625,264	32,909			
65 - 69	13	399,955	30,766			
70 - 74	18	518,923	28,829			
75 - 79	17	410,273	24,134			
80 - 84	4	113,862	28,466			
85 - 89	4	121,310	30,328			
90 - 94	1	32,536	32,536			
95 - 99	1	18,993	18,993			
100 & Over						
TOTAL	116	\$3,548,926	\$30,594	4	\$134,984	\$33,746

Retirees and Beneficiaries Age Distribution Fire

BENEFICIARIES OF DECEASED MEMBERS

Age Group	Males			Females		
	Number	Amount	Average	Number	Amount	Average
Under 20	1	\$ 5,913	\$ 5,913			
25 - 29	1	5,913	5,913	1	\$ 5,913	\$ 5,913
40 - 44	2	26,396	13,198			
45 - 49	2	12,785	6,393	2	80,834	40,417
50 - 54				8	101,454	12,682
55 - 59	2	6,780	3,390	27	492,912	18,256
60 - 64	1	2,783	2,783	21	438,344	20,874
65 - 69				44	925,554	21,035
70 - 74				34	648,061	19,061
75 - 79	1	15,853	15,853	37	647,964	17,513
80 - 84				34	583,216	17,153
85 - 89	2	38,479	19,240	47	731,169	15,557
90 - 94				18	242,804	13,489
95 - 99				4	42,483	10,621
100 & Over						
TOTAL	12	\$114,902	\$9,575	277	\$4,940,708	\$17,836

Active Members by Valuation Division

Valuation Group	Active Members	Valuation Payroll	Average		
			Age	Service	Pay
Employees:					
Male	9,434	\$ 493,232,566	49.0	11.6	\$52,282
Female	14,864	634,533,383	49.4	11.0	42,689
Total	24,298	1,127,765,949	49.2	11.2	46,414
Teachers:					
Male	3,845	241,865,270	46.1	14.0	62,904
Female	13,887	808,581,822	46.3	13.3	58,226
Total	17,732	1,050,447,092	46.3	13.4	59,240
Police:					
Male	3,610	246,892,830	39.3	11.2	68,391
Female	564	32,661,896	38.8	8.8	57,911
Total	4,174	279,554,726	39.2	10.9	66,975
Fire:					
Male	1,564	114,355,012	41.3	13.2	73,117
Female	44	2,908,431	41.1	11.5	66,101
Total	1,608	117,263,443	41.3	13.2	72,925
Total:					
Male	18,453	1,096,345,678	45.9	12.2	59,413
Female	29,359	1,478,685,532	47.7	12.0	50,366
Grand Total	47,812	\$2,575,031,210	47.0	12.1	\$53,857

Valuation Group	Active Members	Valuation Payroll
Employees:		
State	9,798	\$ 518,140,590
Political Subdivisions	14,500	609,625,359
Subtotal	24,298	1,127,765,949
Teachers:	17,732	1,050,447,092
Police:		
State	1,072	74,656,117
Political Subdivisions	3,102	204,898,609
Subtotal	4,174	279,554,726
Fire:		
State	62	3,756,009
Political Subdivisions	1,546	113,507,434
Subtotal	1,608	117,263,443
Total	47,812	\$ 2,575,031,210

Active Members Age and Service Distribution

Employees
June 30, 2015

Attained Age	Years of Service to Valuation Date							Totals	
	0-4	5-9	10-14	15-19	20-24	25-29	30 Plus	No.	Valuation Payroll
15-19	34							34	\$ 712,093
20-24	505	3						508	14,034,541
25-29	1,055	209	4					1,268	43,261,660
30-34	893	535	192	2				1,622	65,292,772
35-39	721	486	408	136				1,751	80,154,354
40-44	777	578	476	346	92	8		2,277	107,391,011
45-49	933	791	594	434	272	189	21	3,234	153,764,652
50-54	966	934	888	577	354	380	171	4,270	206,976,611
55-59	804	927	1,017	654	448	396	389	4,635	224,964,054
60-64	456	668	685	586	323	310	297	3,325	164,168,782
65-69	104	232	274	187	126	101	95	1,119	56,128,731
70+	27	44	71	45	23	21	24	255	10,916,688
TOTAL	7,275	5,407	4,609	2,967	1,638	1,405	997	24,298	\$ 1,127,765,949

While not used in the financial computations, the following group averages are computed and shown because of their general interest.

Age: 49.2 years
Service: 11.2 years
Annual Pay: \$46,414

Active Members Age and Service Distribution

Teachers June 30, 2015

Attained Age	Years of Service to Valuation Date							Totals	
	0-4	5-9	10-14	15-19	20-24	25-29	30 Plus	No.	Valuation Payroll
15-19									\$ -
20-24	154							154	5,473,975
25-29	1,061	224						1,285	51,952,624
30-34	639	1,139	209					1,987	94,213,369
35-39	406	697	1,040	137	1			2,281	127,078,824
40-44	372	443	616	702	75	3		2,211	134,074,581
45-49	323	502	511	509	358	93		2,296	141,238,520
50-54	205	425	495	426	286	378	111	2,326	147,285,036
55-59	135	279	488	500	271	354	478	2,505	165,448,565
60-64	74	162	306	429	296	299	493	2,059	139,962,191
65-69	9	62	93	107	94	62	128	555	38,593,652
70+	2	9	8	11	12	10	21	73	5,125,755
TOTAL	3,380	3,942	3,766	2,821	1,393	1,199	1,231	17,732	\$ 1,050,447,092

While not used in the financial computations, the following group averages are computed and shown because of their general interest.

Age: 46.3 years
Service: 13.4 years
Annual Pay: \$59,240

Active Members Age and Service Distribution

Police June 30, 2015

Attained Age	Years of Service to Valuation Date							Totals	
	0-4	5-9	10-14	15-19	20-24	25-29	30 Plus	No.	Valuation Payroll
15-19	4							4	\$ 140,075
20-24	204							204	7,915,990
25-29	493	125						618	32,213,793
30-34	216	346	103					665	42,027,191
35-39	98	150	321	78	1			648	45,646,985
40-44	70	109	204	306	88	2		779	57,803,970
45-49	48	61	100	166	148	58	3	584	44,431,550
50-54	32	45	68	60	67	70	18	360	27,368,221
55-59	21	15	42	37	34	26	23	198	14,465,277
60-64	11	11	27	14	9	12	4	88	5,742,958
65-69	2	3	7	3	4	2	3	24	1,516,079
70+					1		1	2	282,637
TOTAL	1,199	865	872	664	352	170	52	4,174	\$ 279,554,726

While not used in the financial computations, the following group averages are computed and shown because of their general interest.

Age: 39.2 years
Service: 10.9 years
Annual Pay: \$66,975

Active Members Age and Service Distribution

Fire
June 30, 2015

Attained Age	Years of Service to Valuation Date							Totals	
	0-4	5-9	10-14	15-19	20-24	25-29	30 Plus	No.	Valuation Payroll
15-19	1							1	\$ 46,197
20-24	46							46	2,157,848
25-29	107	49	1					157	8,740,830
30-34	89	109	40					238	14,814,522
35-39	23	59	114	38				234	16,698,404
40-44	11	50	98	87	22	1		269	20,084,042
45-49	8	31	91	85	77	40	1	333	26,552,836
50-54	6	12	42	36	27	59	18	200	16,762,571
55-59	4	3	17	18	9	21	21	93	8,181,108
60-64	4		6	7	2	5	8	32	2,857,655
65-69		2	1				2	5	367,430
70+									
TOTAL	299	315	410	271	137	126	50	1,608	\$ 117,263,443

While not used in the financial computations, the following group averages are computed and shown because of their general interest.

Age: 41.3 years
Service: 13.2 years
Annual Pay: \$72,925

Active Members Age and Service Distribution

Total
June 30, 2015

Attained Age	Years of Service to Valuation Date							Totals	
	0-4	5-9	10-14	15-19	20-24	25-29	30 Plus	No.	Valuation Payroll
15-19	39							39	\$ 898,365
20-24	909	3						912	29,582,354
25-29	2,716	607	5					3,328	136,168,907
30-34	1,837	2,129	544	2				4,512	216,347,854
35-39	1,248	1,392	1,883	389	2			4,914	269,578,567
40-44	1,230	1,180	1,394	1,441	277	14		5,536	319,353,604
45-49	1,312	1,385	1,296	1,194	855	380	25	6,447	365,987,558
50-54	1,209	1,416	1,493	1,099	734	887	318	7,156	398,392,439
55-59	964	1,224	1,564	1,209	762	797	911	7,431	413,059,004
60-64	545	841	1,024	1,036	630	626	802	5,504	312,731,586
65-69	115	299	375	297	224	165	228	1,703	96,605,892
70+	29	53	79	56	36	31	46	330	16,325,080
TOTAL	12,153	10,529	9,657	6,723	3,520	2,900	2,330	47,812	\$ 2,575,031,210

While not used in the financial computations, the following group averages are computed and shown because of their general interest.

Age: 47.0 years
 Service: 12.1 years
 Annual Pay: \$53,857

Historical Membership Data - Active

Total

Valuation Date	Active Members		Covered Payroll		Average Salary		Average	
	No.	% Inc.*	\$ Amount	% Inc.*	\$ Amount	% Inc.*	Age	Service
2005	51,060	N/A	\$2,043,568,262	N/A	\$ 40,023	N/A	45.2	9.9
2007	50,802	(0.3%)	2,195,339,382	3.6%	43,214	3.9%	45.6	10.6
2008	50,988	0.2%	2,308,320,669	5.1%	45,272	4.8%	45.7	10.6
2009	51,032	0.0%	2,448,287,042	6.1%	47,976	6.0%	46.0	10.9
2010	50,467	(0.6%)	2,481,383,620	1.4%	49,168	2.5%	46.3	11.1
2011	49,738	(0.7%)	2,517,779,470	1.5%	50,621	3.0%	46.6	11.4
2012	48,625	(1.1%)	2,487,757,437	(1.2%)	51,162	1.1%	46.9	11.8
2013	48,688	0.1%	2,501,741,708	0.6%	51,383	0.4%	47.0	12.0
2014	48,307	(0.4%)	2,507,898,809	0.2%	51,916	1.0%	47.1	12.1
2015	47,812	(0.5%)	2,575,031,210	2.7%	53,857	3.7%	47.0	12.1

* Average annual increase.

By Valuation Group (Valuation Payroll in Thousands)

	Fiscal Year	Active Members#	Valuation Payroll	Average Compensation	% Inc.*
Employees	2015	24,298	\$1,127,766	\$46,414	4.66 %
Teachers		17,732	1,050,447	59,240	3.06 %
Police		4,174	279,555	66,975	3.15 %
Fire		1,608	117,263	72,925	2.07 %
Total		47,812	\$2,575,031	\$53,857	3.74 %

	Fiscal Year	Active Members#	Valuation Payroll	Average Compensation	% Inc.*
Employees	2014	24,545	\$1,088,508	\$44,347	1.94 %
Teachers		17,986	1,033,867	57,482	(0.04)%
Police		4,166	270,497	64,930	1.91 %
Fire		1,610	115,027	71,445	(0.78)%
Total		48,307	\$2,507,899	\$51,916	1.04 %

Excludes temporary inactive members.

* Average annual increase.

Summary of Membership Data by Category

	June 30	
	2015	2014
Active Members		
Number	47,812	48,307
Average age (years)	47.0	47.1
Average service (years)	12.1	12.1
Average salary	\$53,857	\$51,916
Total payroll supplied, annualized	\$ 2,575,031,210	\$ 2,507,898,809
Vested Inactive Members		
Number	1,999	1,297
Average age (years)	52	52
Non-Vested Inactive Members		
Number	8,690	8,102
Service Retirees		
Number	27,114	26,958
Average age (years)	69	69
Total annual benefits	\$ 570,043,185	\$ 537,980,513
Average annual benefit	\$ 21,024	\$ 19,956
Disability Retirees		
Number	1,586	1,561
Average age (years)	63	62
Total annual benefits	\$ 30,483,173	\$ 30,088,288
Average annual benefit	\$ 19,220	\$ 19,275
Beneficiaries		
Number	2,650	2,535
Average age (years)	74	73
Total annual benefits	\$ 36,495,210	\$ 34,600,022
Average annual benefit	\$ 13,772	\$ 13,649
Total Covered Lives	89,851	88,760

Other Schedules of Interest
Schedule of Average Benefit Payment Amounts

Service	Employees								Total
	<u>0 - 4 yrs.*</u>	<u>5 - 9 yrs.</u>	<u>10 - 14 yrs.</u>	<u>15 - 19 yrs.</u>	<u>20 - 24 yrs.</u>	<u>25 - 29 yrs.</u>	<u>30 or more yrs.</u>		
Total annual benefit	\$ 4,407,144	\$ -	\$ 8,859,313	\$ 28,975,151	\$ 27,735,413	\$ 36,257,041	\$ 29,261,934	\$ 72,937,974	\$ 208,433,970
Average annual benefit	\$ 3,592	\$ -	\$ 5,409	\$ 7,466	\$ 11,288	\$ 14,811	\$ 20,622	\$ 30,227	\$ 13,462
Average monthly benefit	\$ 299	\$ -	\$ 451	\$ 622	\$ 941	\$ 1,234	\$ 1,718	\$ 2,519	\$ 1,122
Average final compensation	\$ 44,554	\$ -	\$ 43,186	\$ 41,904	\$ 47,573	\$ 49,030	\$ 55,589	\$ 64,928	\$ 49,559
Number of retired members	1,227 *	1,638	3,881	2,457	2,448	1,419	2,413	15,483	**

* Includes 273 members who did not have service reported.

** Includes 6,453 members who did not have AFC reported.

Service	Teachers								Total
	<u>0 - 4 yrs.*</u>	<u>5 - 9 yrs.</u>	<u>10 - 14 yrs.</u>	<u>15 - 19 yrs.</u>	<u>20 - 24 yrs.</u>	<u>25 - 29 yrs.</u>	<u>30 or more yrs.</u>		
Total annual benefit	\$ 1,508,628	\$ -	\$ 2,099,915	\$ 12,005,438	\$ 17,995,837	\$ 39,997,241	\$ 44,960,500	\$ 130,767,294	\$ 249,334,853
Average annual benefit	\$ 5,825	\$ -	\$ 6,840	\$ 8,919	\$ 14,059	\$ 19,239	\$ 24,868	\$ 34,595	\$ 22,961
Average monthly benefit	\$ 485	\$ -	\$ 570	\$ 743	\$ 1,172	\$ 1,603	\$ 2,072	\$ 2,883	\$ 1,913
Average final compensation	\$ 52,242	\$ -	\$ 56,107	\$ 49,238	\$ 58,293	\$ 62,540	\$ 67,126	\$ 71,943	\$ 64,076
Number of retired members	259 *	307	1,346	1,280	2,079	1,808	3,780	10,859	**

* Includes 108 members who did not have service reported.

** Includes 4,203 members who did not have AFC reported.

Service	Police								Total
	<u>0 - 4 yrs.*</u>	<u>5 - 9 yrs.</u>	<u>10 - 14 yrs.</u>	<u>15 - 19 yrs.</u>	<u>20 - 24 yrs.</u>	<u>25 - 29 yrs.</u>	<u>30 or more yrs.</u>		
Total annual benefit	\$ 4,035,768	\$ -	\$ 3,113,423	\$ 7,637,791	\$ 8,498,900	\$ 50,750,507	\$ 32,352,238	\$ 14,613,454	\$ 121,002,081
Average annual benefit	\$ 11,149	\$ -	\$ 16,561	\$ 19,287	\$ 27,067	\$ 36,380	\$ 54,010	\$ 71,987	\$ 35,002
Average monthly benefit	\$ 929	\$ -	\$ 1,380	\$ 1,607	\$ 2,256	\$ 3,032	\$ 4,501	\$ 5,999	\$ 2,917
Average final compensation	\$ 53,397	\$ -	\$ 57,211	\$ 53,878	\$ 64,646	\$ 78,872	\$ 94,266	\$ 107,053	\$ 77,621
Number of retired members	362 *	188	396	314	1,395	599	203	3,457	**

* Includes 222 members who did not have service reported.

** Includes 1,785 members who did not have AFC reported.

Service	Fire								Total
	<u>0 - 4 yrs.*</u>	<u>5 - 9 yrs.</u>	<u>10 - 14 yrs.</u>	<u>15 - 19 yrs.</u>	<u>20 - 24 yrs.</u>	<u>25 - 29 yrs.</u>	<u>30 or more yrs.</u>		
Total annual benefit	\$ 1,887,488	\$ -	\$ 510,218	\$ 1,910,711	\$ 3,019,196	\$ 20,053,408	\$ 19,144,668	\$ 11,724,975	\$ 58,250,664
Average annual benefit	\$ 13,579	\$ -	\$ 17,007	\$ 20,997	\$ 25,371	\$ 32,821	\$ 49,215	\$ 68,168	\$ 37,557
Average monthly benefit	\$ 1,132	\$ -	\$ 1,417	\$ 1,750	\$ 2,114	\$ 2,735	\$ 4,101	\$ 5,681	\$ 3,130
Average final compensation	\$ 55,075	\$ -	\$ 59,425	\$ 61,768	\$ 68,985	\$ 77,441	\$ 90,785	\$ 96,758	\$ 83,520
Number of retired members	139 *	30	91	119	611	389	172	1,551	**

* Includes 120 members who did not have service reported.

** Includes 949 members who did not have AFC reported.

Other Schedules of Interest
Schedule of Retired and Vested Members by Type of Benefit

Employees

June 30, 2015																			
		Type of Retirement**								Option Selected #									
Amount of Monthly Benefit	Number of Retirees*	1	2	3	4	5	6	7	No. Option	1	2	3	4	5	6	7	8	9	Other&
\$1 - \$500	4,501	3,452	51	2	12	-	556	428	2,685	157	247	99	662	211	6	6	-	-	428
501 - 1,000	4,846	3,619	260	125	8	2	415	417	2,670	111	317	109	877	329	12	4	-	-	417
1,001 - 1,500	2,857	2,244	80	230	12	4	154	133	1,463	78	219	94	603	260	6	1	-	-	133
1,501 - 2,000	1,704	1,427	23	95	4	2	96	57	796	39	160	69	422	151	7	3	-	-	57
2,001 - 2,500	980	876	2	25	-	2	57	18	420	11	97	42	299	90	1	2	-	-	18
2,501 - 3,000	649	590	3	7	-	1	41	7	248	16	88	30	181	76	1	2	-	-	7
3,001 - 3,500	392	366	-	3	-	-	19	4	155	6	55	17	115	40	-	-	-	-	4
3,501 - 4,000	274	262	1	1	-	-	10	-	83	5	43	22	88	32	1	-	-	-	-
Over 4,000	345	333	1	2	1	-	7	1	102	4	53	29	106	48	1	1	-	-	1
Totals	16,548	13,169	421	490	37	11	1,355	1,065	8,622	427	1,279	511	3,353	1,237	35	19	-	-	1,065

Teachers

June 30, 2015																			
		Type of Retirement**								Option Selected #									
Amount of Monthly Benefit	Number of Retirees*	1	2	3	4	5	6	7	No. Option	1	2	3	4	5	6	7	8	9	Other&
\$1 - \$500	849	544	1	-	-	-	70	234	428	31	39	2	95	16	3	1	-	-	234
501 - 1,000	1,865	1,353	44	-	3	-	116	349	954	77	88	27	295	68	5	2	-	-	349
1,001 - 1,500	1,694	1,390	70	4	4	-	93	133	830	51	120	48	396	110	5	1	-	-	133
1,501 - 2,000	1,762	1,581	29	6	5	-	71	70	778	54	143	44	494	170	2	7	-	-	70
2,001 - 2,500	1,804	1,700	15	9	-	1	57	22	764	40	143	68	549	212	1	5	-	-	22
2,501 - 3,000	1,452	1,394	8	3	-	-	41	6	602	40	128	53	430	186	3	4	-	-	6
3,001 - 3,500	1,146	1,100	3	1	-	-	36	6	477	23	102	44	369	118	3	4	-	-	6
3,501 - 4,000	633	617	-	-	1	-	13	2	264	19	67	23	174	84	-	-	-	-	2
Over 4,000	476	461	-	-	-	-	15	-	212	6	58	18	128	54	-	-	-	-	-
Totals	11,681	10,140	170	23	13	1	512	822	5,309	341	888	327	2,930	1,018	22	24	-	-	822

See Page 99 for footnotes.

Other Schedules of Interest
Schedule of Retired and Vested Members by Type of Benefit

Police

June 30, 2015																			
		Type of Retirement**								Option Selected #									
Amount of Monthly Benefit	Number of Retirants*	1	2	3	4	5	6	7	No. Option	1	2	3	4	5	6	7	8	9	Other&
\$1 - \$500	198	160	-	-	-	2	36	-	130	1	9	13	22	23	-	-	-	-	-
501 - 1,000	329	173	9	1	-	-	132	14	238	5	14	9	20	26	2	1	-	-	14
1,001 - 1,500	377	183	25	8	-	1	121	39	234	12	17	16	20	39	-	-	-	-	39
1,501 - 2,000	333	203	21	32	2	1	55	19	185	12	8	30	16	63	-	-	-	-	19
2,001 - 2,500	382	275	8	62	1	1	22	13	184	18	13	48	14	90	-	2	-	-	13
2,501 - 3,000	392	277	-	84	-	-	25	6	158	22	10	69	19	108	-	-	-	-	6
3,001 - 3,500	356	299	-	42	2	3	9	1	123	16	4	91	8	113	-	-	-	-	1
3,501 - 4,000	289	254	-	23	1	-	8	3	88	8	2	64	10	114	-	-	-	-	3
Over 4,000	899	839	1	46	1	1	8	3	221	18	9	279	14	354	1	-	-	-	3
Totals	3,555	2,663	64	298	7	9	416	98	1,561	112	86	619	143	930	3	3	-	-	98

Fire

June 30, 2015																			
		Type of Retirement**								Option Selected #									
Amount of Monthly Benefit	Number of Retirants*	1	2	3	4	5	6	7	No. Option	1	2	3	4	5	6	7	8	9	Other&
\$1 - \$500	45	23	-	-	-	2	20	-	40	-	2	-	1	2	-	-	-	-	-
501 - 1,000	110	36	1	-	-	-	72	1	105	-	1	-	1	2	-	-	-	-	1
1,001 - 1,500	160	67	8	5	1	5	70	4	122	6	6	7	8	7	-	-	-	-	4
1,501 - 2,000	144	68	8	11	-	1	52	4	100	8	5	10	7	10	-	-	-	-	4
2,001 - 2,500	180	115	3	21	1	3	35	2	98	13	8	23	7	29	-	-	-	-	2
2,501 - 3,000	171	131	2	26	-	-	9	3	63	8	5	30	10	52	-	-	-	-	3
3,001 - 3,500	151	129	1	16	-	2	3	-	41	7	3	39	2	59	-	-	-	-	-
3,501 - 4,000	135	125	-	8	-	1	1	-	40	5	1	30	2	57	-	-	-	-	-
Over 4,000	469	448	-	10	1	-	10	-	119	12	2	128	5	201	1	1	-	-	-
Totals	1,565	1,142	23	97	3	14	272	14	728	59	33	267	43	419	1	1	-	-	14

See Page 99 for footnotes.

**Type of Retirement

- 1-Service & early retirement
- 2-Ordinary disability retirement
- 3-Accidental disability retirement
- 4-Ordinary death in active service
- 5-Accidental death in active service
- 6-Beneficiaries of deceased members who retired on a service or disability allowance
- 7-Vested member with future benefit

#Option Selected

- No option - Straight life
- Option 1 - Cash refund
- Option 2 - 100% Joint & Survivorship
- Option 3 - 50% Joint & Survivorship
- Option 4 - 100% Pop-Up
- Option 5 - 50% Pop-Up
- Option 6 - Other % Joint & Survivorship
- Option 7 - Other % Pop-Up
- Option 8 - Fixed amount to Beneficiaries
- Option 9 - Widow's benefit (accidental disability) 50%

** Including Vested members with a future benefit.*

& Elections for Vested members are made at the time of commencement.

Other Schedules of Interest
Schedule of Average Benefit Payment Amounts
Medical Benefits

Service	State Employees							<u>Total</u>
	<u>0 - 4 yrs.*</u>	<u>5 - 9 yrs.</u>	<u>10 - 14 yrs.</u>	<u>15 - 19 yrs.</u>	<u>20 - 24 yrs.</u>	<u>25 - 29 yrs.</u>	<u>30 or more yrs.</u>	
Average annual benefit	\$ 4,891	\$ 4,918	\$ 4,607	\$ 4,751	\$ 4,116	\$ 4,400	\$ 4,452	\$ 4,401
Average monthly benefit	\$ 408	\$ 410	\$ 384	\$ 396	\$ 343	\$ 367	\$ 371	\$ 367
Annual Benefits	\$401,058	\$344,263	\$345,516	\$194,804	\$2,086,895	\$1,500,527	\$3,329,873	\$8,202,936
Number of retired members	82	70	75	41	507	341	748	1,864

** Includes 5 members who did not have service reported.*

Service	Political Subdivision Employees							<u>Total</u>
	<u>0 - 4 yrs.*</u>	<u>5 - 9 yrs.</u>	<u>10 - 14 yrs.</u>	<u>15 - 19 yrs.</u>	<u>20 - 24 yrs.</u>	<u>25 - 29 yrs.</u>	<u>30 or more yrs.</u>	
Average annual benefit	\$ 3,258	\$ 2,644	\$ 3,112	\$ 3,120	\$ 4,246	\$ 4,310	\$ 5,115	\$ 4,442
Average monthly benefit	\$ 272	\$ 220	\$ 259	\$ 260	\$ 354	\$ 359	\$ 426	\$ 370
Annual Benefits	\$52,132	\$26,435	\$40,461	\$18,717	\$2,581,495	\$1,262,906	\$1,667,570	\$5,649,716
Number of retired members	16	10	13	6	608	293	326	1,272

** Includes 6 members who did not have service reported.*

Service	Teachers							<u>Total</u>
	<u>0 - 4 yrs.*</u>	<u>5 - 9 yrs.</u>	<u>10 - 14 yrs.</u>	<u>15 - 19 yrs.</u>	<u>20 - 24 yrs.</u>	<u>25 - 29 yrs.</u>	<u>30 or more yrs.</u>	
Average annual benefit	\$ 3,062	\$2,842	\$ 4,679	\$5,684	\$ 4,514	\$ 4,633	\$ 5,374	\$ 5,002
Average monthly benefit	\$ 255	\$ 237	\$ 390	\$ 474	\$ 376	\$ 386	\$ 448	\$ 417
Annual Benefits	\$61,247	\$11,368	\$18,717	\$5,684	\$4,563,825	\$4,461,226	\$12,940,878	\$22,062,945
Number of retired members	20	4	4	1	1,011	963	2,408	4,411

** Includes 13 members who did not have service reported.*

Service	Police and Fire							<u>Total</u>
	<u>0 - 4 yrs.*</u>	<u>5 - 9 yrs.</u>	<u>10 - 14 yrs.</u>	<u>15 - 19 yrs.</u>	<u>20 - 24 yrs.</u>	<u>25 - 29 yrs.</u>	<u>30 or more yrs.</u>	
Average annual benefit	\$ 4,699	\$ 4,854	\$ 5,484	\$ 5,102	\$ 6,043	\$ 6,501	\$ 6,229	\$ 6,010
Average monthly benefit	\$ 392	\$ 405	\$ 457	\$ 425	\$ 504	\$ 542	\$ 519	\$ 501
Annual Benefits	\$291,312	\$407,761	\$970,582	\$892,798	\$7,674,258	\$4,303,589	\$1,793,931	\$16,334,231
Number of retired members	62	84	177	175	1,270	662	288	2,718

** Includes 19 members who did not have service reported.*

Number counts include 70 retirees who are eligible for a deferred subsidy.

Other Schedules of Interest
 Schedule of Retired Members by Type of Benefits
 Medical Benefits

State Employees

June 30, 2015					
Monthly Benefit	No. of Retirees	1 Person		2 Person	
		Pre-65	Post-65	Pre-65	Post-65
\$1-\$500	1,666	81	1,546	0	39
501-1,000	195	15	106	41	33
1,001-1,500	3	0	2	0	1
1,501-2,000	0	0	0	0	0
Over 2,000	0	0	0	0	0
Total	1,864	96	1,654	41	73

Political Subdivision Employees

June 30, 2015					
Monthly Benefit	No. of Retirees	1 Person		2 Person	
		Pre-65	Post-65	Pre-65	Post-65
\$1-\$500	1,149	75	1,070	0	4
501-1,000	121	20	59	15	27
1,001-1,500	2	0	0	0	2
1,501-2,000	0	0	0	0	0
Over 2,000	0	0	0	0	0
Total	1,272	95	1,129	15	33

Other Schedules of Interest
 Schedule of Retired Members by Type of Benefits
 Medical Benefits

Teachers

June 30, 2015					
Monthly Benefit	No. of Retirees	1 Person		2 Person	
		Pre-65	Post-65	Pre-65	Post-65
\$1-\$500	3,653	207	3,419	1	26
501-1,000	704	93	243	74	294
1,001-1,500	39	7	18	3	11
1,501-2,000	15	2	1	12	0
Over 2,000	0	0	0	0	0
Total	4,411	309	3,681	90	331

Police and Fire

June 30, 2015					
Monthly Benefit	No. of Retirees	1 Person		2 Person	
		Pre-65	Post-65	Pre-65	Post-65
\$1-\$500	1,654	435	1,194	13	12
501-1,000	1,039	143	235	641	20
1,001-1,500	16	4	1	6	5
1,501-2,000	9	0	0	9	0
Over 2,000	0	0	0	0	0
Total	2,718	582	1,430	669	37

Other Schedules of Interest Historical Membership Data - Retiree

EMPLOYEES (aggregate compensation and annual allowance dollars in thousands)									
RETIRED MEMBERSHIP DATA									
Fiscal Year	Added to Rolls		Removed from Rolls		Rolls End of Year		% Increase in Annual Allowances	Average Annual Allowances	
	No.**	Annual Allowances*	No.	Annual Allowances	No.	Annual Allowances			
2015 +	1,504	\$ 21,357	1335	\$ 10,968	15,483	\$ 208,434	5.25%	\$ 13,462	
2014	1,094	\$ 15,784	492	\$ 5,431	15,314	\$ 198,045	5.52%	\$ 12,932	
2013	1,110	\$ 16,335	539	\$ 6,699	14,712	\$ 187,692	5.41%	\$ 12,758	
2012	1,111	\$ 14,711	457	\$ 4,890	14,141	\$ 178,056	5.84%	\$ 12,591	
2011	1,113	\$ 16,521	428	\$ 4,578	13,487	\$ 168,235	7.64%	\$ 12,474	
2010	1,070	\$ 18,300	460	\$ 4,624	12,802	\$ 156,292	9.59%	\$ 12,208	
2009	934	\$ 14,703	322	\$ 3,864	12,192	\$ 142,616	8.23%	\$ 11,697	
2008	1,083	\$ 17,897	362	\$ 4,199	11,580	\$ 131,777	11.60%	\$ 11,380	
2007	1,465	\$ 22,691	579	\$ 5,471	10,859	\$ 118,079	17.07%	\$ 10,874	
2005	1,620	\$ 19,183	739	\$ 5,972	9,973	\$ 100,859	18.56%	\$ 10,113	
2003	1,258	\$ 13,588	572	\$ 4,029	9,092	\$ 85,067	18.11%	\$ 9,356	
2001	1,095	\$ 10,078	617	\$ 3,965	8,406	\$ 72,025	17.11%	\$ 8,568	
1999	1,183	\$ 10,077	571	\$ 3,195	7,928	\$ 61,501	20.00%	\$ 7,757	
1997	1,064	\$ 9,120	578	\$ 2,724	7,316	\$ 51,249	19.11%	\$ 7,005	
1995	1,195	N/A	393	N/A	6,830	\$ 43,027	26.95%	\$ 6,300	

TEACHERS (aggregate compensation and annual allowance dollars in thousands)									
RETIRED MEMBERSHIP DATA									
Fiscal Year	Added to Rolls		Removed from Rolls		Rolls End of Year		% Increase in Annual Allowances	Average Annual Allowances	
	No.**	Annual Allowances*	No.	Annual Allowances	No.	Annual Allowances			
2015+	840	\$ 21,563	946	\$ 6,891	10,859	\$ 249,335	6.25%	\$ 22,961	
2014	744	\$ 17,222	186	\$ 4,802	10,965	\$ 234,663	5.59%	\$ 21,401	
2013	698	\$ 15,844	247	\$ 5,860	10,407	\$ 222,243	4.70%	\$ 21,355	
2012	712	\$ 16,420	183	\$ 5,150	9,956	\$ 212,259	5.61%	\$ 21,320	
2011	504	\$ 10,402	164	\$ 3,644	9,427	\$ 200,989	3.48%	\$ 21,321	
2010	849	\$ 22,231	269	\$ 5,199	9,087	\$ 194,231	9.61%	\$ 21,375	
2009	1,001	\$ 26,668	148	\$ 3,214	8,507	\$ 177,199	15.26%	\$ 20,830	
2008	891	\$ 23,743	165	\$ 4,238	7,654	\$ 153,745	14.53%	\$ 20,087	
2007	1,254	\$ 29,350	230	\$ 4,004	6,928	\$ 134,240	23.28%	\$ 19,376	
2005	1,121	\$ 21,842	344	\$ 4,591	5,904	\$ 108,894	24.34%	\$ 18,444	
2003	848	\$ 15,910	239	\$ 2,735	5,127	\$ 87,580	26.86%	\$ 17,082	
2001	501	\$ 8,375	272	\$ 2,691	4,518	\$ 69,036	12.62%	\$ 15,280	
1999	685	\$ 11,458	292	\$ 2,504	4,289	\$ 61,301	25.29%	\$ 14,293	
1997	583	\$ 9,528	294	\$ 2,220	3,896	\$ 48,927	28.21%	\$ 12,558	
1995	627	N/A	204	N/A	3,607	\$ 38,161	45.93%	\$ 10,580	

* Includes additional COLA allowances. The benefit amounts shown are the monthly benefits as of the valuation date annualized and are not the actual benefits paid during the fiscal year.

** Includes beneficiaries in receipt but excludes deferred vested terminations.

+ June 30, 2015 data included a reclassification of members with split benefits resulting in an artificially high number of new additions to the rolls.

Other Schedules of Interest Historical Membership Data - Retiree

POLICE OFFICERS (aggregate compensation and annual allowance dollars in thousands)								
RETIRED MEMBERSHIP DATA								
Fiscal Year	Added to Rolls		Removed from Rolls		Rolls End of Year		% Increase in Annual Allowances	Average Annual Allowances
	No.**	Annual Allowances*	No.	Annual Allowances	No.	Annual Allowances		
2015+	282	\$ 7,303	107	\$ 1,675	3,457	\$ 121,002	4.88%	\$ 35,002
2014	178	\$ 6,420	59	\$ 1,304	3,282	\$ 115,374	4.64%	\$ 35,154
2013	247	\$ 8,189	65	\$ 1,464	3,163	\$ 110,258	6.50%	\$ 34,859
2012	171	\$ 6,977	70	\$ 1,008	2,981	\$ 103,533	6.12%	\$ 34,731
2011	237	\$ 10,370	59	\$ 1,133	2,880	\$ 97,564	10.46%	\$ 33,876
2010	189	\$ 7,711	52	\$ 1,413	2,702	\$ 88,327	7.68%	\$ 32,689
2009	157	\$ 7,235	28	\$ 627	2,565	\$ 82,029	8.76%	\$ 31,980
2008	179	\$ 8,504	36	\$ 1,376	2,436	\$ 75,421	10.44%	\$ 30,961
2007	361	\$ 14,045	80	\$ 1,540	2,293	\$ 68,293	22.42%	\$ 29,783
2005	308	\$ 8,934	83	\$ 1,492	2,012	\$ 55,788	17.68%	\$ 27,728
2003	262	\$ 7,903	61	\$ 971	1,787	\$ 47,406	23.81%	\$ 26,528
2001	280	\$ 6,085	63	\$ 960	1,586	\$ 38,290	25.58%	\$ 24,142
1999	238	\$ 5,790	39	\$ 604	1,369	\$ 30,490	30.00%	\$ 22,272
1997	167	\$ 3,252	54	\$ 648	1,170	\$ 23,450	22.39%	\$ 20,043
1995	194	N/A	32	N/A	1,057	\$ 19,160	41.07%	\$ 18,127

FIREFIGHTERS (aggregate compensation and annual allowance dollars in thousands)								
RETIRED MEMBERSHIP DATA								
Fiscal Year	Added to Rolls		Removed from Rolls		Rolls End of Year		% Increase in Annual Allowances	Average Annual Allowances
	No.**	Annual Allowances*	No.	Annual Allowances	No.	Annual Allowances		
2015+	105	\$ 4,546	47	\$ 882	1,551	\$ 58,251	6.71%	\$ 37,557
2014	89	\$ 2,774	43	\$ 1,139	1,493	\$ 54,587	3.09%	\$ 36,562
2013	98	\$ 3,497	27	\$ 715	1,447	\$ 52,952	5.55%	\$ 36,595
2012	79	\$ 3,105	39	\$ 495	1,376	\$ 50,170	5.49%	\$ 36,461
2011	111	\$ 5,051	29	\$ 696	1,336	\$ 47,560	10.08%	\$ 35,599
2010	53	\$ 2,490	36	\$ 766	1,254	\$ 43,205	4.16%	\$ 34,454
2009	60	\$ 2,628	23	\$ 644	1,237	\$ 41,481	5.02%	\$ 33,533
2008	63	\$ 3,456	31	\$ 1,110	1,200	\$ 39,497	6.31%	\$ 32,914
2007	131	\$ 7,404	24	\$ 1,066	1,168	\$ 37,151	20.57%	\$ 31,807
2005	128	\$ 4,393	66	\$ 1,290	1,061	\$ 30,813	15.83%	\$ 29,041
2003	142	\$ 4,747	49	\$ 1,067	999	\$ 26,602	30.26%	\$ 26,629
2001	164	\$ 3,861	39	\$ 541	906	\$ 20,422	29.36%	\$ 22,541
1999	108	\$ 2,684	41	\$ 514	781	\$ 15,787	25.03%	\$ 20,214
1997	93	\$ 2,244	38	\$ 432	714	\$ 12,627	23.01%	\$ 17,685
1995	63	N/A	28	N/A	659	\$ 10,265	19.35%	\$ 15,576

* Includes additional COLA allowances. The benefit amounts shown are the monthly benefits as of the valuation date annualized and are not the actual benefits paid during the fiscal year.

** Includes beneficiaries in receipt but excludes deferred vested terminations.

+ June 30, 2015 data included a reclassification of members with split benefits resulting in an artificially high number of new additions to the rolls.