GRS Gabriel Roeder Smith & Company
Consultants & Actuaries

NEW HAMPSHIRE RETIREMENT SYSTEM

ACTUARIAL VALUATION REPORT

AS OF JUNE 30, 2015

GRS
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June 30, 2016

Board of Trustees
New Hampshire Retirement System
54 Regional Drive
Concord, New Hampshire 03301-8507

Re: New Hampshire Retirement System Actuarial Valuation as of June 30, 2015

Dear Board Members:

The results of the June 30, 2015 Annual Actuarial Valuation of the New Hampshire Retirement System (NHRS) are presented in this report. The purposes of the valuation were:

- to measure the System's funding progress; and
- to calculate employer contribution rates for Fiscal Years 2018 and 2019.

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 above.

Calculations required for compliance with the Governmental Accounting Standards Board (GASB) Statements No. 67 and No. 68 have been issued in separate reports.

The contribution rates in this report are determined according to statute RSA 100-A:16, 53, 53-b, 53-c, and 53-d using the actuarial assumptions and methods disclosed in Section F of this report. This report includes risk measures on page 30 but does not include a more robust assessment of the risks of future experience not meeting the actuarial assumptions. Additional assessment of risks was outside the scope of this assignment. There is a proposed Actuarial Standard of Practice on Assessment and Disclosure of Risk Associated with Measuring Pension Obligations and Determining Pension Plan Contributions that was not considered for this valuation but may apply to future valuations.

The valuation was based upon information, furnished by 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 audit the data. We are not responsible for the accuracy or completeness of the data provided by NHRS. Detailed demographic information can be found in the CAFR Schedules and GASB Statement No. 67 Plan Reporting and Accounting Schedules report dated October 30, 2015.

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. Actuarial methods and assumptions were adopted by the Board pursuant to the June 30, 2015 Experience Study. 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. 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.

We certify that the information contained in this report is accurate and fairly presents the actuarial position of the New Hampshire Retirement System as of June 30, 2015. 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: plan experience differing from that anticipated by the economic and 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. Due to the limited scope of the actuary's assignment, the actuary did not perform an analysis of the potential range of such future measurements.

If there is other information that you need in order to make an informed decision regarding the matters discussed in this report, please contact us.

David T. Kausch, Heidi G. Barry and Judith A. Kermans are independent of the plan sponsors, are Members of the American Academy of Actuaries (MAAA), and meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinions contained herein.

Respectfully submitted,

David T. Kausch, FSA, EA, FCA, MAAA

Heidi G. Barry, ASA, MAAA

Judith A. Kermans, EA, FCA, MAAA

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Employer Contribution Rates for the 2018/2019 Biennium

	Computed Employer Contribution Rates as a Percent of Payroll				
	State Members				
	Employees	**Teachers**	**Police**	**Fire**	**Total***
Pension	11.08%		25.33%	27.79%	12.97%
Medical Subsidy	1.07%		4.10%	4.10%	1.47%
Total	12.15%		29.43%	31.89%	14.44%

	Computed Employer Contribution Rates as a Percent of Payroll				
	Political Subdivision Members				
	Employees	**Teachers**	**Police**	**Fire**	**Total***
Pension	11.08%	15.70%	25.33%	27.79%	15.96%
Medical Subsidy	0.30%	1.66%	4.10%	4.10%	1.63%
Total	11.38%	17.36%	29.43%	31.89%	17.59%

** The grand total contribution rates for NHRS (State and Political Subdivisions combined) are 15.27% of payroll for pension and 1.60% for the medical subsidy for a grand total of 16.87% of payroll. The rates shown above for the total State and total Political Subdivisions vary due to different proportions of payroll in the various member classifications.*

The Pension Funded Ratio (Actuarial Value of Assets divided by the Actuarial Accrued Liability) for NHRS in total is 59.2%.

Changes to the System included in the June 30, 2015 Actuarial Valuation:

1) The actuarial assumptions resulting from the July 1, 2010 through June 30, 2015 experience study were adopted by the Board and have been incorporated for actuarial valuation purposes. These changes increased the total employer contribution rate by 3.23% of payroll (pension and medical subsidy combined), and decreased the pension funded ratio by 4.2%.

2) In total, plan experience between June 30, 2014 and June 30, 2015 was favorable for pension and the medical subsidy. The dollar weighted rate of return for the year ending June 30, 2015 was 3.4% 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). On the basis of statutory funding, the rate of return was 10.7% 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.

Highlights of
June 30, 2015 Actuarial Valuation

3) Total covered payroll increased by 2.68% versus the assumed increase of 3.75% resulting in pension liability gains. Between the 2014 and 2015 valuation, the pension funded ratio decreased by 1.50% (60.7 to 59.2% after assumption changes). See Comment 1 on page 17.

4) The medical subsidy benefits are effectively pay-as-you-go with total assets in the four subaccounts being roughly half a year's total benefit payments. The market value of assets available to fund medical subsidy benefits decreased from $23.4 million to $20.1 million. See Comment 3 on page 18.

Details of the impact of changes can be found in the Discussion and Comments section.

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. Statutory Funding Information					
a. Actuarial Present Value of Projected Benefits	$ 4,701,418,465	$ 5,601,022,062	$ 2,709,029,658	$1,292,657,223	$14,304,127,408
b. Actuarial Present Value of Future Normal Costs	693,271,312	748,244,027	367,677,189	191,298,972	2,000,491,500
c. Actuarial Accrued Liability (AAL): a. – b.	4,008,147,153	4,852,778,035	2,341,352,469	1,101,358,251	12,303,635,908
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.	1,604,853,125	2,170,695,535	863,835,739	383,490,897	5,022,875,296
f. Funded Status: d. / c.	60.0%	55.3%	63.1%	65.2%	59.2%
III. 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

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	$ 78,328,478	$ 61,630,533	$ 264,010,132	$ 373,419,789	$ 777,388,932
b. Actuarial Present Value of Future Normal Costs	-	-	-	16,046,892	16,046,892
c. Actuarial Accrued Liability (AAL): a. – b.	78,328,478	61,630,533	264,010,132	357,372,897	761,342,040
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.	77,775,675	39,669,078	277,315,353	347,066,455	741,826,561
f. Funded Status: d. / c.	0.6%	35.7%	(5.0%)	2.9%	2.6%

Executive Summary
Contribution Rates

State Members

Covered Group	Employees	Teachers	Police	Fire	Total
Current Cost					
Total Normal Cost (% of Covered Payroll)	9.16%		17.22%	18.85%	10.23%
UAAL Contribution (% of Payroll)	8.92%		19.66%	20.74%	10.34%
Total Pension Contribution (% of Payroll)	18.08%		36.88%	39.59%	20.57%
Fiscal Year 2018					
Member Contributions (% of Payroll)	7.00%		11.55%	11.80%	7.60%
Employer Pension Contribution (% of Payroll)	11.08%		25.33%	27.79%	12.97%
Employer Medical Subsidy Contribution (% of Payroll)	1.07%		4.10%	4.10%	1.47%
Total Contributions for Fiscal Year 2018					
1. Percent of Payroll	12.15%	N/A	29.43%	31.89%	14.44%
2. Estimated Dollar Amount	$ 69,293,751	N/A	$ 24,183,872	$ 1,318,413	$ 94,796,036
Fiscal Year 2019					
Member Contributions (% of Payroll)	7.00%		11.55%	11.80%	7.60%
Employer Pension Contribution (% of Payroll)	11.08%		25.33%	27.79%	12.97%
Employer Medical Subsidy Contribution (% of Payroll)	1.07%		4.10%	4.10%	1.47%
Total Contributions for Fiscal Year 2019					
1. Percent of Payroll	12.15%	N/A	29.43%	31.89%	14.44%
2. Estimated Dollar Amount	$ 71,545,798	N/A	$ 24,969,848	$ 1,361,261	$ 97,876,907

Executive Summary
Contribution Rates (Concluded)

Political Subdivison Members

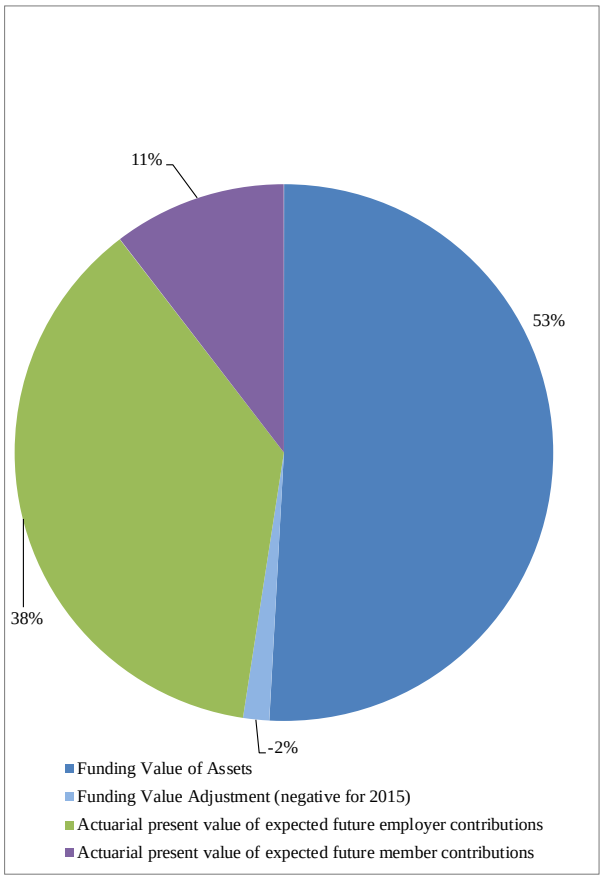
Covered Group	Employees	Teachers	Police	Fire	Total
Current Cost					
Total Normal Cost (% of Covered Payroll)	9.16%	9.07%	17.22%	18.85%	10.50%
UAAL Contribution (% of Payroll)	8.92%	13.63%	19.66%	20.74%	13.21%
Total Pension Contribution (% of Payroll)	18.08%	22.70%	36.88%	39.59%	23.71%
Fiscal Year 2018					
Member Contributions (% of Payroll)	7.00%	7.00%	11.55%	11.80%	7.75%
Employer Pension Contribution (% of Payroll)	11.08%	15.70%	25.33%	27.79%	15.96%
Employer Medical Subsidy Contribution (% of Payroll)	0.30%	1.66%	4.10%	4.10%	1.63%
Total Contributions for Fiscal Year 2018					
1. Percent of Payroll	11.38%	17.36%	29.43%	31.89%	17.59%
2. Estimated Dollar Amount	$ 76,361,679	$ 199,267,090	$ 66,374,223	$ 39,842,722	$ 381,845,714
Fiscal Year 2019					
Member Contributions (% of Payroll)	7.00%	7.00%	11.55%	11.80%	7.75%
Employer Pension Contribution (% of Payroll)	11.08%	15.70%	25.33%	27.79%	15.96%
Employer Medical Subsidy Contribution (% of Payroll)	0.30%	1.66%	4.10%	4.10%	1.63%
Total Contributions for Fiscal Year 2019					
1. Percent of Payroll	11.38%	17.36%	29.43%	31.89%	17.59%
2. Estimated Dollar Amount	$ 78,843,434	$ 205,245,103	$ 68,531,385	$ 41,137,610	$ 393,757,532

Total NHRS Members

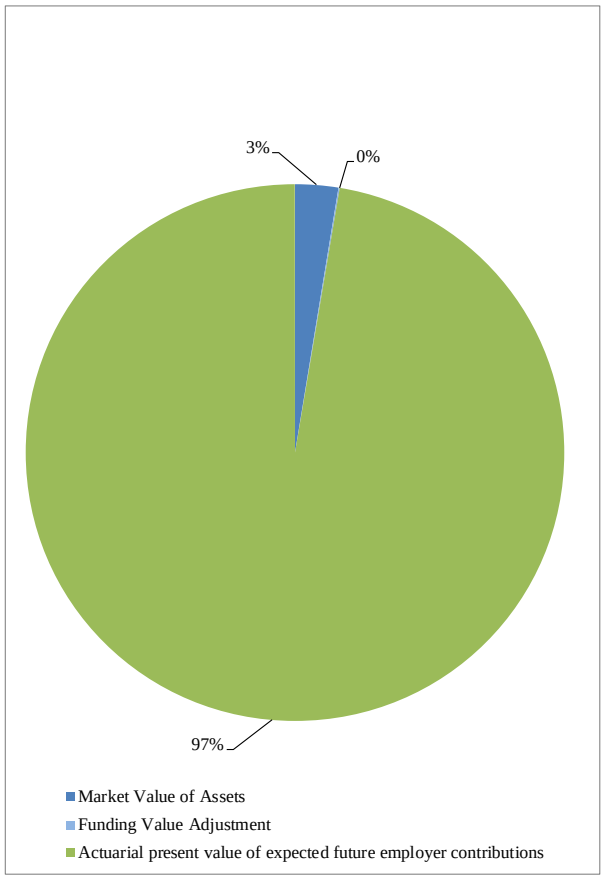
Covered Group	Employees	Teachers	Police	Fire	Total
Current Cost					
Fiscal Year 2018					
Estimated Dollar Amount	$ 145,655,430	$ 199,267,090	$ 90,558,095	$ 41,161,135	$ 476,641,750
Fiscal Year 2019					
Estimated Dollar Amount	$ 150,389,232	$ 205,245,103	$ 93,501,233	$ 42,498,871	$ 491,634,439

Sources of Funds

Pension

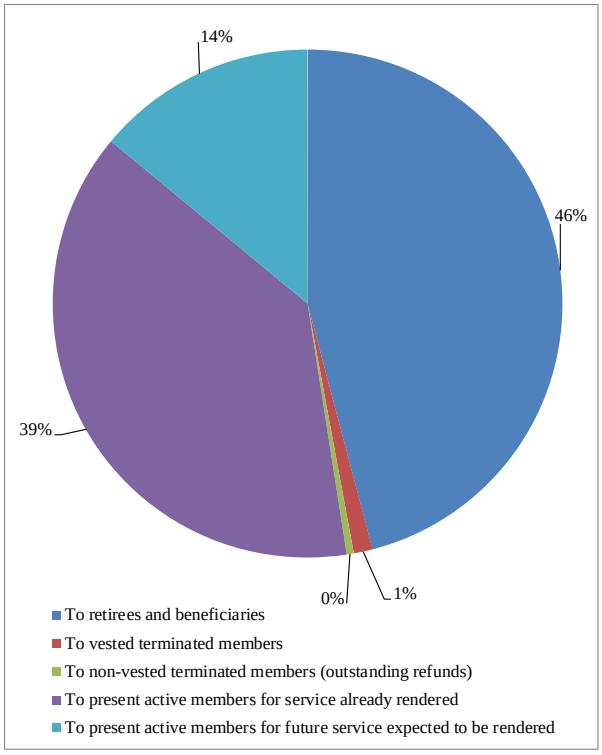


Medical Subsidy

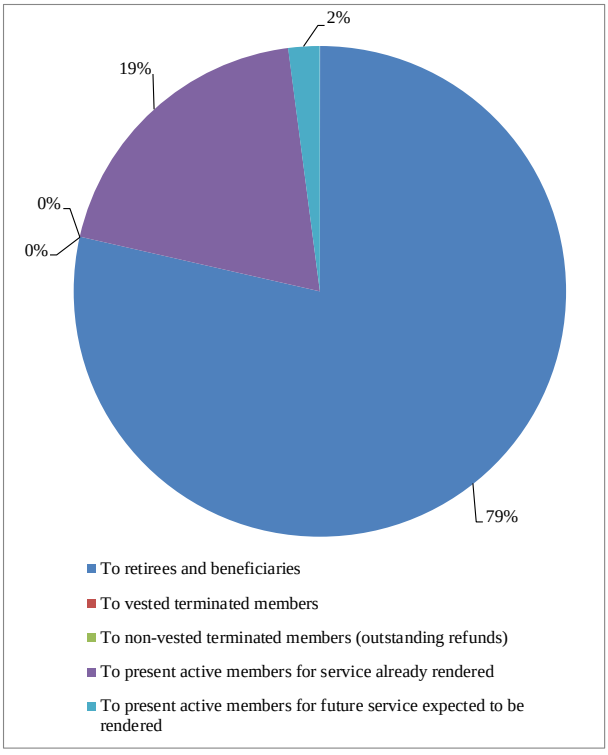


Uses of Funds

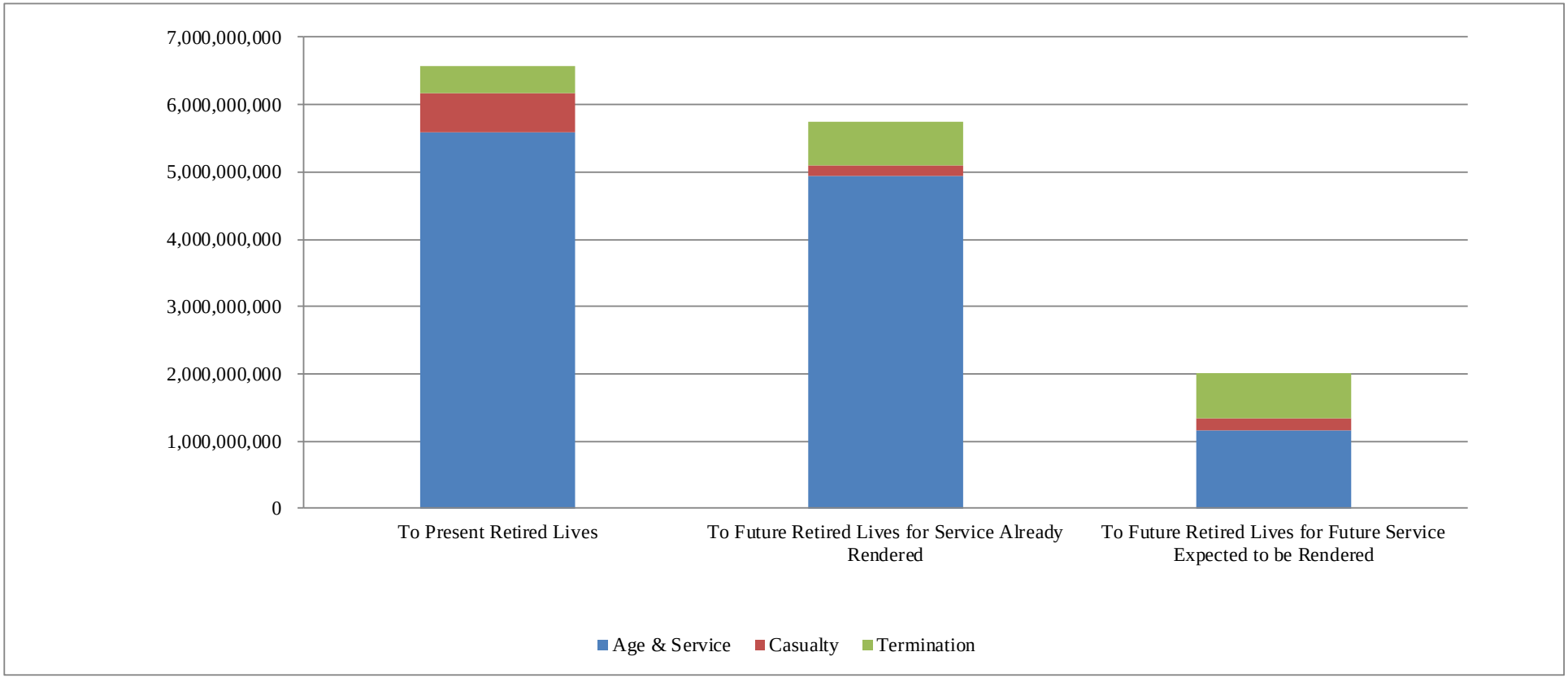
Pension

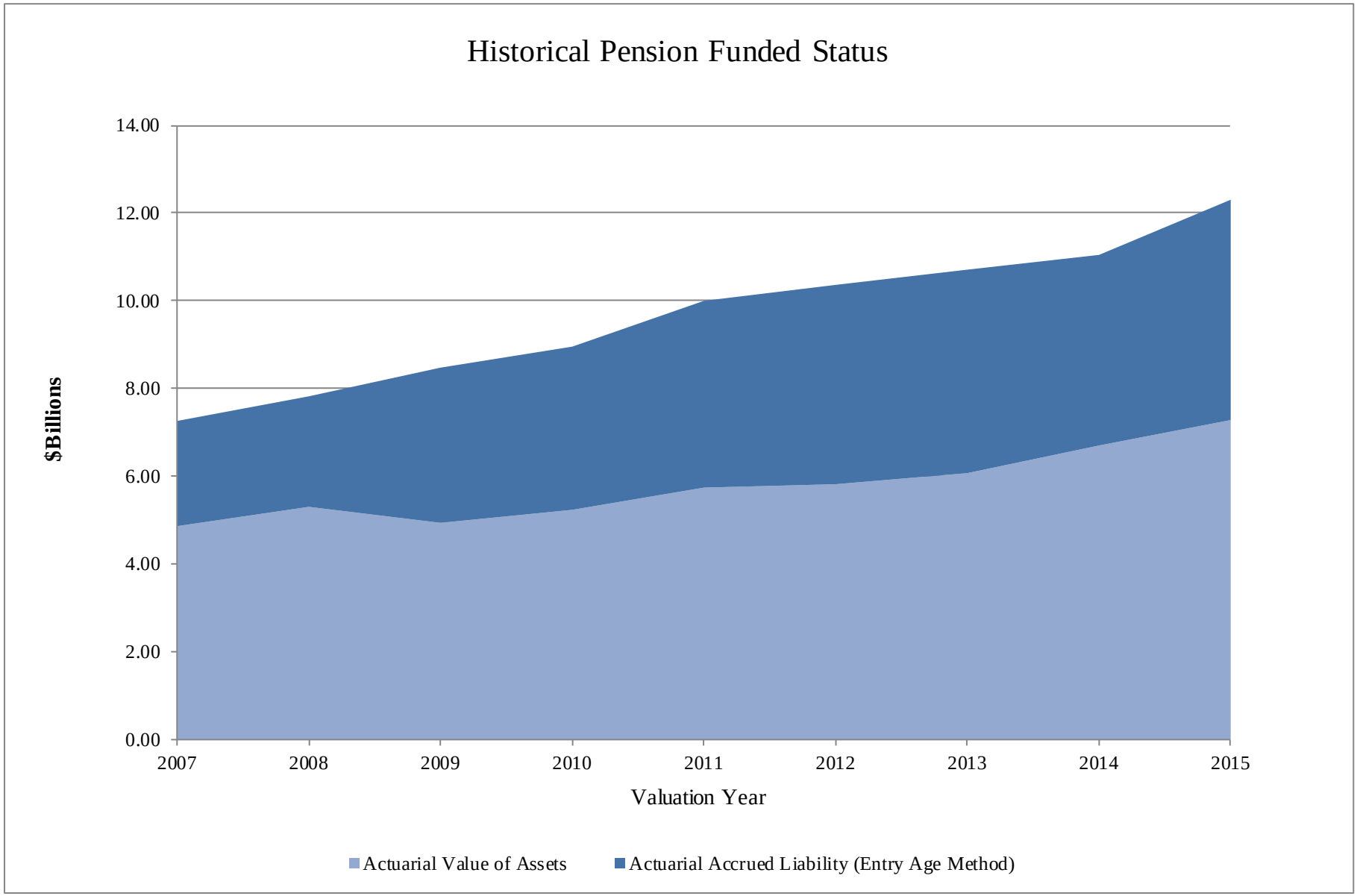


Medical Subsidy



Comparison of Pension Liabilities by Type




Historical Pension Funded Status
14.00
12.00
10.00
8.00
6.00
4.00
2.00
0.00
$Billions
2007
2008
2009
2010
2011
2012
2013
2014
2015
Valuation Year
Actuarial Value of Assets
Actuarial Accrued Liability (Entry Age Method)

Results of the Valuation

Actuarial Valuation

This is the actuarial valuation of the New Hampshire Retirement System, prepared as of June 30, 2015.

The primary purposes of this valuation report are to measure the plan's liabilities, to analyze changes in NHRS' actuarial position and to determine employer contribution rates.

Valuations for certifying contribution rates are prepared biennially, as of June 30 on the odd numbered years (2015, 2017, etc.). The June 30, 2015 actuarial valuation will establish the Fiscal Year 2018 and Fiscal Year 2019 employer contribution rates.

In addition, this report provides summaries of the member data, financial data, and actuarial assumptions and methods. Detailed information regarding member data and plan provisions can be found in the 'CAFR Schedules and GASB Statement No. 67 Plan Reporting and Accounting Schedules' report dated October 30, 2015. Calculations required for compliance with the Governmental Accounting Standards Board (GASB) Statement No. 68 have been issued in a separate report dated January 7, 2016.

Financing Objectives

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.

There are four separate 401(h) subgroups: 1) State Employees; 2) Political Subdivision Employees; 3) Teachers and 4) Police/Fire. The table below shows the pension and medical subsidy contribution rates for each subgroup.

	Computed Employer Contribution Rates as a Percent of Payroll				
	State Members				
	Employees	**Teachers**	**Police**	**Fire**	**Total***
Pension	11.08%		25.33%	27.79%	12.97%
Medical Subsidy	1.07%		4.10%	4.10%	1.47%
Total	12.15%		29.43%	31.89%	14.44%

	Computed Employer Contribution Rates as a Percent of Payroll				
	Political Subdivision Members				
	Employees	**Teachers**	**Police**	**Fire**	**Total***
Pension	11.08%	15.70%	25.33%	27.79%	15.96%
Medical Subsidy	0.30%	1.66%	4.10%	4.10%	1.63%
Total	11.38%	17.36%	29.43%	31.89%	17.59%

* *The grand total contribution rates for NHRS (State and Political Subdivisions combined) are 15.27% of payroll for pension and 1.60% for the medical subsidy for a grand total of 16.87% of payroll. The rates shown above for the total State and total Political Subdivisions vary due to different proportions of payroll in the various member classifications.*

The account balance for Teachers is negative as of June 30, 2015.

The State Employees' account has reached pay-as-you-go status.

The Political Subdivision Employees' account is projected to reach pay-as-you-go status in the fiscal year ending June 30, 2030. This is the same as the projection in the prior valuation.

The Police/Fire account is projected to reach pay-as-you-go status in the fiscal year ending June 30, 2025. This is one year later than the projection in the prior valuation.

The medical subsidy contribution rates for State Employees and Teachers shown above are the computed amounts needed for pay-as-you-go financing of the retiree medical subsidy with a 20% margin for adverse experience by June 30, 2018 and to maintain that margin thereafter. It is imperative that NHRS monitor collections closely to ensure the necessary funds are collected to provide the benefit.

History of Certified Contribution Rates

Pension

	Employer Contribution Rates				
Fiscal Year Ending	**Employees**	**Teachers**	**Police**	**Fire**	**Total**
2010	9.09%	9.38%	17.34%	22.52%	10.70%
2011	9.09%	9.38%	17.34%	22.52%	10.70%
July 1, 2011 -July 30, 2011	10.71%	11.51%	22.92%	28.25%	13.11%
Aug 1, 2011 - June 30, 2012	8.48%	8.99%	15.98%	18.92%	9.97%
2013	8.48%	8.99%	15.98%	18.92%	9.97%
2014-2015#	10.44%	11.96%	21.35%	23.79%	12.79%
2016-2017	10.86%	12.72%	22.54%	25.32%	13.55%
2018-2019	11.08%	15.70%	25.33%	27.79%	15.27%

	Employer Dollars ($Millions)*				
Fiscal Year Ending	**Employees**	**Teachers**	**Police**	**Fire**	**Total**
2010	$101.2	$97.1	$46.4	$25.0	$269.7
2011	$103.5	$98.0	$46.9	$26.2	$274.6
2012	$94.4	$93.5	$44.5	$22.2	$254.6
2013	$91.7	$92.9	$43.2	$22.0	$249.8
2014	$115.5	$126.1	$58.9	$27.9	$328.4
2015	$118.3	$124.2	$61.1	$28.7	$332.3
2016	*$126.5*	*$137.6*	*$65.1*	*$30.7*	*$359.9*
2017	*$130.6*	*$141.8*	*$67.2*	*$31.7*	*$371.3*
2018	*$137.5*	*$180.2*	*$77.9*	*$35.9*	*$431.5*
2019	*$142.0*	*$185.6*	*$80.5*	*$37.0*	*$445.1*

Medical Subsidy

	Employer Contribution Rates				
Fiscal Year Ending	**State Employees**	**Employees Political Sub**	**Teachers**	**Police & Fire**	**Total**
2010	3.03%	0.00%	1.32%	2.17%	1.47%
2011	3.03%	0.00%	1.32%	2.17%	1.47%
July 1, 2011 -July 30, 2011	1.60%	0.38%	2.44%	2.65%	1.82%
Aug 1, 2011 - June 30, 2012	1.60%	0.32%	2.31%	3.97%	1.95%
2013	1.60%	0.32%	2.31%	3.97%	1.95%
2014-15	1.62%	0.33%	2.20%	3.95%	1.90%
2016-17	1.64%	0.31%	2.95%	3.84%	2.21%
2018-19	1.07%	0.30%	1.66%	4.10%	1.60%

	Employer Dollars ($Millions)*				
Fiscal Year Ending	**State Employees**	**Employees Political Sub**	**Teachers**	**Police & Fire**	**Total**
2010	$10.4	$0.4	$13.6	$8.1	$32.6
2011	$10.3	$0.4	$13.8	$8.4	$32.9
2012	$8.3	$1.9	$24.0	$14.7	$48.9
2013	$8.8	$1.9	$23.8	$15.3	$49.8
2014	$8.2	$2.0	$23.3	$15.4	$48.9
2015	$8.6	$1.8	$22.6	$16.0	$49.0
2016	*$8.8*	*$2.0*	*$31.9*	*$15.7*	*$58.4*
2017	*$9.1*	*$2.0*	*$32.9*	*$16.2*	*$60.2*
2018	*$6.1*	*$2.0*	*$19.1*	*$17.9*	*$45.1*
2019	*$6.3*	*$2.1*	*$19.6*	*$18.5*	*$46.5*

** Dollar amounts for 2016 and beyond are estimated.*

 # Rates shown are for Political Subdivision. Rates for State are 10.51%, 21.45% and 23.90% for Employees, Police and Fire, respectively.

History of Certified Contribution Rates (Concluded)

Member Contributions

	Member Contribution Rates				
Fiscal Year Ending	**Employees**	**Teachers**	**Police**	**Fire**	**Total**
2010	5.00%	5.00%	9.30%	9.30%	5.64%
2011	5.00%	5.00%	9.30%	9.30%	5.64%
2012	7.00%	7.00%	11.55%	11.80%	7.69%
2013	7.00%	7.00%	11.55%	11.80%	7.69%
2014-15	7.00%	7.00%	11.55%	11.80%	7.69%
2016-17	7.00%	7.00%	11.55%	11.80%	7.71%
2018-19	7.00%	7.00%	11.55%	11.80%	7.71%

	Member Dollars ($Millions)*				
Fiscal Year Ending	**Employees**	**Teachers**	**Police**	**Fire**	**Total**
2010	$59.6	$54.2	$25.4	$10.2	$149.5
2011	$59.3	$56.2	$26.2	$10.7	$152.4
2012	$80.5	$75.0	$30.7	$13.4	$199.6
2013	$77.8	$74.1	$31.0	$13.7	$196.5
2014	$78.9	$74.7	$31.8	$13.7	$199.0
2015	$81.7	$74.8	$33.4	$14.2	$204.1
2016	*$81.5*	*$75.7*	*$33.3*	*$14.3*	*$204.8*
2017	*$84.2*	*$78.0*	*$34.4*	*$14.8*	*$211.4*
2018	*$86.9*	*$80.3*	*$35.5*	*$15.2*	*$217.9*
2019	*$89.7*	*$82.8*	*$36.7*	*$15.7*	*$224.9*

** Dollar amounts for 2016 and beyond are estimated.*

Funded Status

As of the valuation date, the Unfunded Actuarial Accrued Liability (UAAL) is $5,022.9 million (pension only), and the funded ratio (the ratio of the Actuarial Value of Assets to the Actuarial Accrued Liability) is 59.2% (pension only) after reflecting newly adopted actuarial assumptions. This valuation was prepared using the Entry-Age Actuarial Cost Method. For comparison, the funded ratio as of June 30, 2014 was 60.7% (pension only).

Variability of Future Contribution Rates

The Actuarial Cost Method used to determine the contribution rate is intended to produce contribution rates which are generally level as a percent of payroll. Even so, when experience differs from the assumptions, as it often does, the employer's contribution rate can vary from year-to-year.

The level percent of payroll amortization of the UAAL assumes that the plan will remain open to new hires, that the size of the covered active population will remain constant, and that the covered payroll will grow at 3.25% per year (3.0% for Teachers). To the extent that this does not occur, there may be variability in future contribution rates.

Actuarial Value of Assets

The Market Value of Assets of the System of $7.5 billion is greater than the Actuarial Value of Assets of $7.3 billion by $230 million as of the valuation date (see page 43). This difference will be gradually recognized over the next four years in the absence of future gains/losses.

The dollar weighted rate of return for the year ending June 30, 2015 was 3.4% 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 recognized dollar weighted rate of return on the actuarial value of assets was 10.7% for the year ending June 30, 2015.

Please see Section C for additional asset information.

Actuarial Assumptions and Methods

The method for determining the normal cost was changed. We projected the normal cost rates from the first year of the rate setting biennium to better reflect the impact of the changing benefit tiers and generational mortality. This change was made in the July 1, 2010 – June 30, 2015 experience study.

The assumptions were revised in accordance with the July 1, 2010 – June 30, 2015 experience study. There were no changes in methods. Interest rate and wage inflation assumptions were changed from 7.75%/3.75% to 7.25%/3.25%, respectively. Section F summarizes the current assumptions. The changes in actuarial assumptions increased the total employer contribution rate by 3.23% of payroll (pension and medical subsidy combined).

A summary of the changes to the major demographic assumptions follows:

Rates of Withdrawal
There were decreases in the overall rates of termination.

Rates of Disability
There was a decrease in the overall rates of disability for Fire and an increase in the overall rates of disability for the other member classifications.

Rates of Retirement
In general, rates of retirement were lowered.

Mortality rates
The Society of Actuaries (SOA) published new tables for U.S. pension plans called the RP-2014 tables in October 2014. The SOA also published the MP-2015 projection scales to reflect mortality improvements after 2015. The tables used are generational with an adjustment based on our analysis in the experience study.

Merit and Longevity Salary Increases
There was a decrease in overall rates of merit and longevity salary increases for Employees and modest increases in overall rates for the other member classifications.

Medical Subsidy Margin for Adverse Experience
An assumption of 5% of those members eligible for medical subsidy benefits who have opted-out are included in the valuation.

Additional information regarding the assumption changes may be found in the experience study report.

A complete description of the assumptions used in the valuation is in section F.

We believe that the actuarial assumptions contained in this report are reasonable under the Actuarial Standards of Practice and in compliance with the NHRS Statutes.

The results of the actuarial valuation are dependent on the actuarial assumptions used. Actual results can, and almost certainly will, differ as actual experience deviates from the assumptions. Even seemingly minor changes in the assumptions can materially change the liabilities, calculated contribution rates, and amortization periods.

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	143.6	413.2	181.7	76.5	815.0
Impact of Plan Change	0.0	0.0	0.0	0.0	N/A
Total	$1,604.9	$2,170.7	$863.8	$383.5	$5,022.9
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	(2.2)%	(5.1)%	(5.3)%	(4.8)%	(4.2)%
Impact of Plan Change	0.0 %	0.0 %	0.0 %	0.0 %	0.0 %
Total	60.0 %	55.3 %	63.1 %	65.2 %	59.2 %
Reconciliation of Employer Contribution Rate					
State Employees					
Prior Valuation	10.34 %		20.88 %	23.38 %	11.73 %
Impact of (Gain)Loss	(0.44)%		(1.57)%	(1.39)%	(0.57)%
Impact of Assumption Change	1.18 %		6.02 %	5.80 %	1.81 %
Impact of Plan Change	0.00 %		0.00 %	0.00 %	0.00 %
Total	11.08 %		25.33 %	27.79 %	12.97 %
Political Subdivision Employees					
Prior Valuation	10.34 %	12.09 %	20.88 %	23.38 %	13.12 %
Impact of (Gain)Loss	(0.44)%	(0.30)%	(1.57)%	(1.39)%	(0.56)%
Impact of Assumption Change	1.18 %	3.91 %	6.02 %	5.80 %	3.40 %
Impact of Plan Change	0.00 %	0.00 %	0.00 %	0.00 %	0.00 %
Total	11.08 %	15.70 %	25.33 %	27.79 %	15.96 %

	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	4.6	3.0	34.6	43.5	85.7
Impact of Plan Change	0.0	0.0	0.0	0.0	0.0
Total	$77.8	$39.6	$277.3	$347.1	$741.8
Reconciliation of Employer Contribution Rate					
Prior Valuation	1.03 %	0.28 %	1.23 %	3.91 %	1.38 %
Impact of (Gain)Loss	(0.02)%	(0.04)%	0.16 %	(0.19)%	0.02 %
Impact of Assumption Change	0.06 %	0.06 %	0.27 %	0.38 %	0.20 %
Impact of Plan Change	0.00 %	0.00 %	0.00 %	0.00 %	0.00 %
Total	1.07 %	0.30 %	1.66 %	4.10 %	1.60 %

Discussion and Comments

Comment 1:

In total, plan experience between June 30, 2014 and June 30, 2015 was 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 3.4% 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). On the basis of statutory funding, the rate of return was 10.7% 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.

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% (60.7% to 63.4%) before changes in actuarial assumptions. The funded ratio was 59.2% after reflecting the newly adopted actuarial assumptions.

The expectation if all assumptions are met is that future pension contribution rates will decline as new hires with lower normal cost replace those hired before July 1, 2011 with higher normal cost. The contribution for the unfunded actuarial accrued liability is designed to be a level percent of payroll with 22 years remaining in the 2018 Fiscal Year. Medical Subsidy contribution rates are expected to decline as the covered population diminishes. There are currently unrecognized asset gains (primarily from prior year's strong market performance) which will put additional downward pressure on the rates to the extent that future market experience meets expectations. For additional information, see the projections beginning on page 34.

Comment 2:

The System underwent an experience study for the 5-year period ending June 30, 2015. At the May 10, 2016 Board meeting, the Board adopted the use of a 7.25% investment return assumption, a 3.25% wage inflation assumption and the demographic package of assumptions proposed in the experience study. The impact of the assumptions changed can be found on pages 16 and 29. A summary of the assumption changes can be found on pages 14 and 15.

Comment 3:

June 30, 2015 Medical Subsidy Contribution Rates

Medical Subsidy benefits continue to warrant close monitoring. As required by the statutes, the objective is to contribute the minimum amount necessary to maintain assets sufficient to pay medical subsidy benefits in each of the four plans. Given the absence of assets from prior pre-funding (as exists for pension benefits), medical subsidy benefits payable in the future will be largely funded by future employer contributions. However, employer contributions toward medical subsidy benefits are subject to certain limitations as defined in IRC Section 401(h).

In addition, year to year deviations between actual contributions and benefits and projected contributions and benefits are more problematic with regard to medical subsidy funding than pension funding due to the lack of significant assets for medical subsidy benefits and the lag between the setting of the rates and the collection of contributions.

For purposes of determining the contribution rates for the 2018-2019 biennium as shown on page 1, we have assumed that benefits for all members receiving a benefit on the valuation date and those Group I eligible members not yet age 60 get paid. In addition, there are a significant number of eligible members who are not receiving benefits, particularly for Group I. 5% of those who opted-out of receiving benefits are assumed to opt back in on the valuation date. We have assumed that each subaccount maintains at least a 20% margin each year beginning in the first year of the 2018-2019 biennium.

There were more benefits paid from the Teachers 401(h) account than expected and less paid from the other accounts. We did not perform an in-depth review of the data, but indications are that Teachers lived longer than expected and some members eligible but previously not receiving benefits elected coverage during the year. As a result of the experience study, we have changed the mortality tables and added an assumption for those who opt out of receiving benefits (discussed above briefly).

Comment 4:

NHRS underwent a data clean-up effort. The June 30, 2015 census data includes a change in 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:

The normal cost rate as of June 30, 2015 for members hired on or after July 1, 2011 is shown in the table below.

Normal Cost	Employees	Teachers	Police	Fire	Total
Total	8.91 %	8.45 %	14.58 %	15.11 %	9.66 %
Member	7.00 %	7.00 %	11.55 %	11.80 %	7.71 %
Employer	1.91 %	1.45 %	3.03 %	3.31 %	1.95 %

The total normal cost for the active populations of the four member classifications is expected to decrease each year towards the rates for new hires. Normal cost is expected to increase each year with generational mortality. Note that the group of those hired on and after July 1, 2011 is 22% of the total active population. There may be fluctuations in the normal cost rate for these members over the next few years which should level out over time as the group grows.

Comment 6:

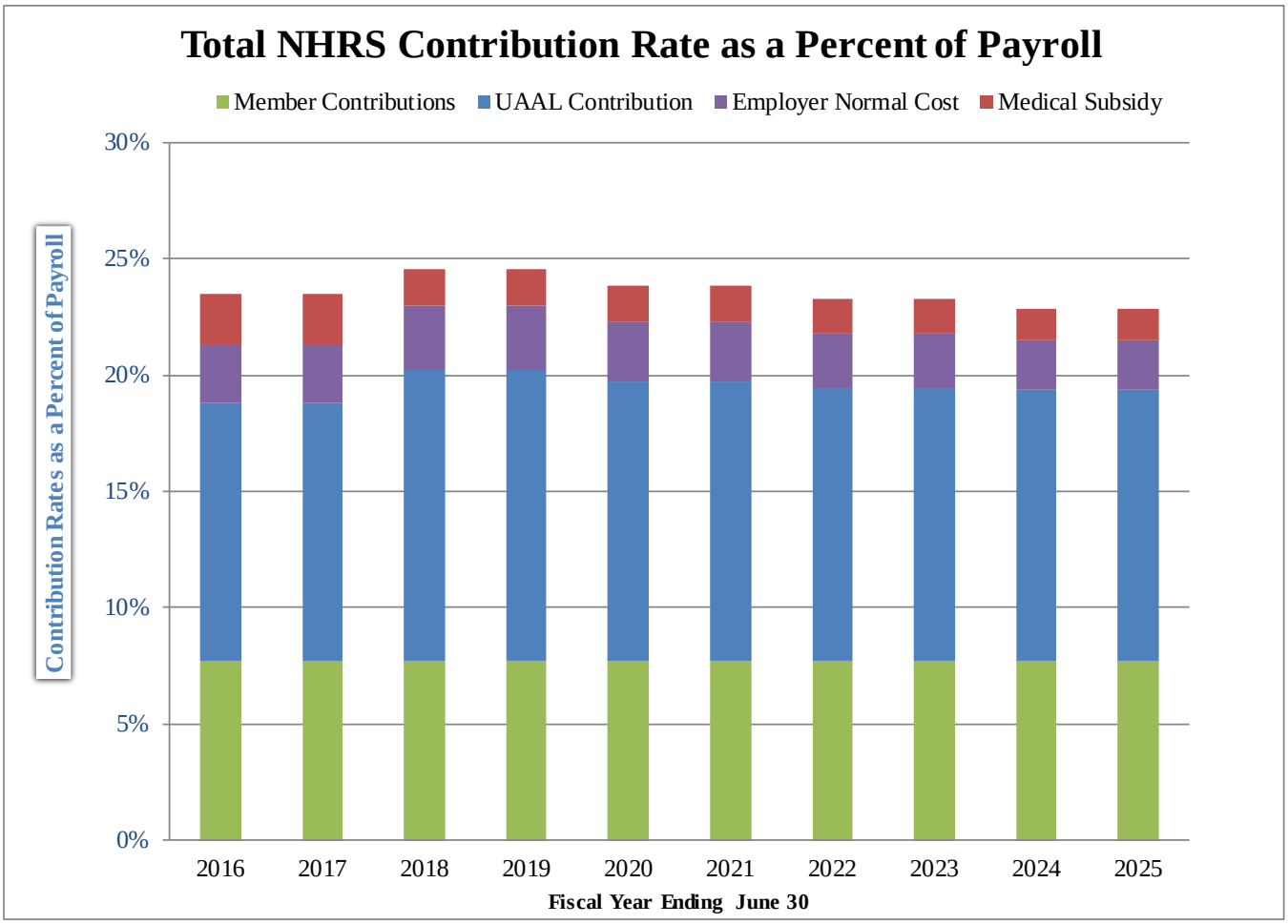
Prior to June 30, 2007, the statutory funding method did not report a funded status nor did it report that assets were below the retiree liability. As of June 30, 2015, there were 66% of assets needed to cover retiree liabilities, as shown in the table on page 31.The assets in the plan are not sufficient to cover current retiree liabilities and the ratio of retiree benefit payroll to the market value of assets is 0.10. This means that approximately 12 years of current retiree benefit payments can be paid from current assets if all assumptions are met and ignoring future contributions. The ability to make such payments beyond that period is heavily dependent upon future contributions and future investment return.

Comment 7:

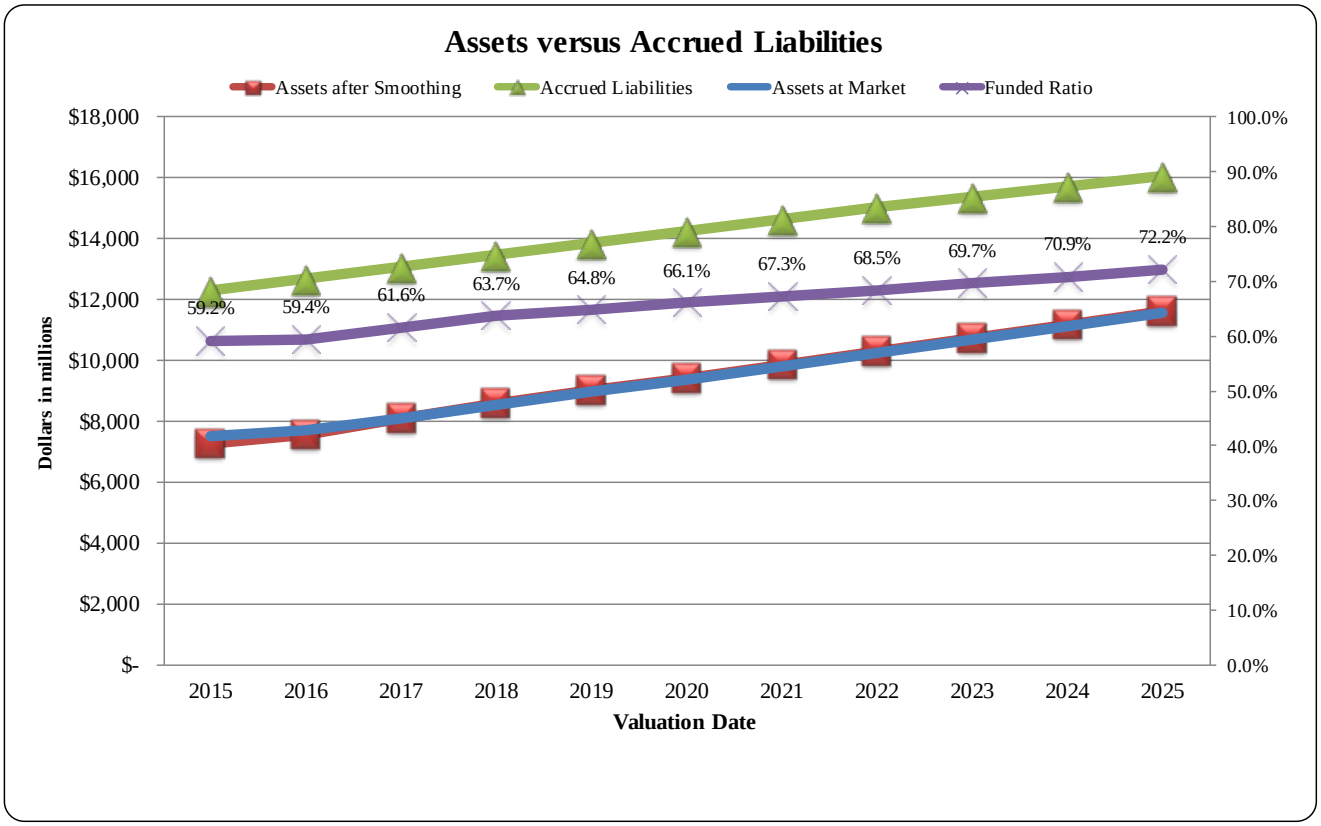
The GASB has issued new accounting standards for OPEB valuations similar to the new pension standards. GASB Statement No. 74 for the plan OPEB disclosures must be adopted no later than the June 30, 2017 fiscal year. GASB Statement No. 75 for employer OPEB disclosures (which will include similar proportionate share calculations) is effective for employer fiscal years beginning after June 15, 2017. We are working with NHRS staff to provide a smooth transition to the new standards.

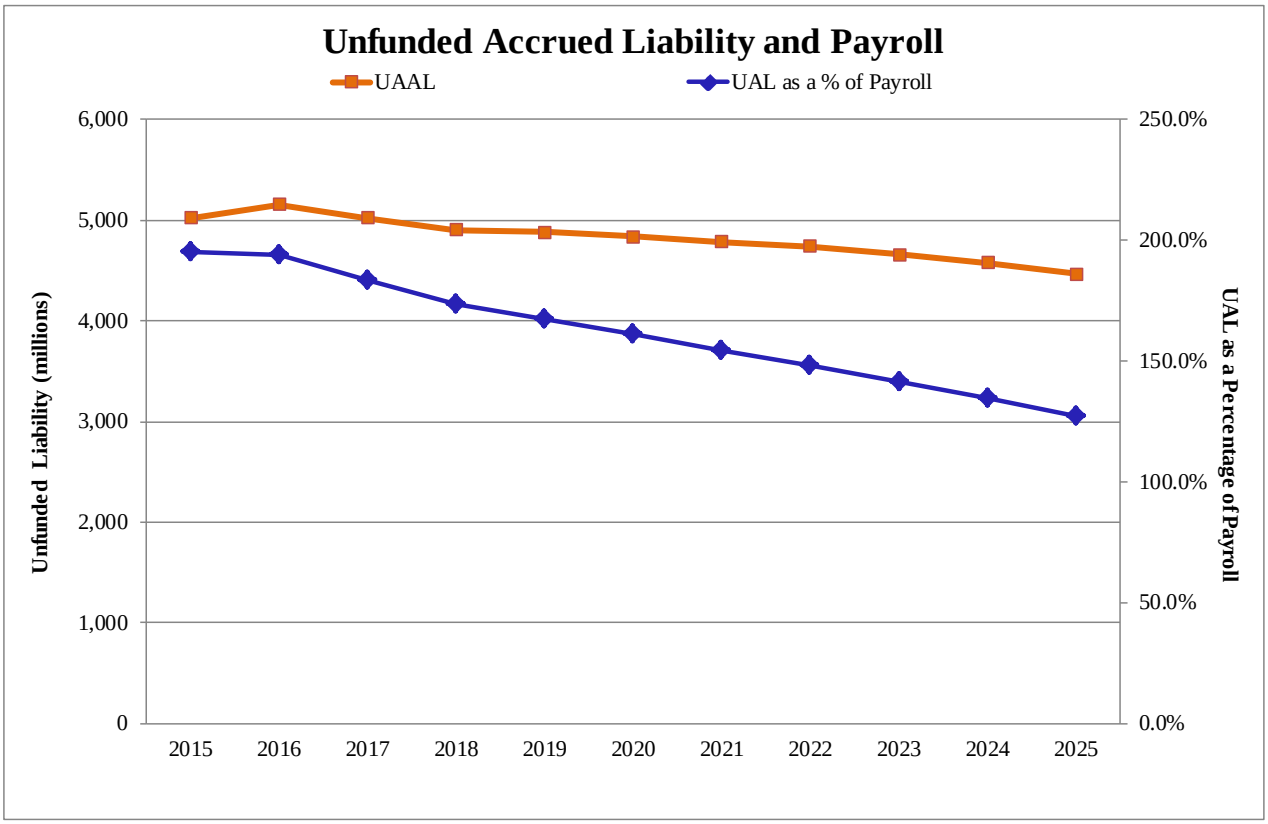
Projections

Projection results are useful in demonstrating changing relationships among key elements affecting system financial activity. For example, it demonstrates how benefits and system assets will grow in future decades. Projections are not predictions of specific future events and do not provide numeric precision in absolute terms. For instance, cash flow projected to occur 10 years in the future will not be exact (except by coincidence), but understanding the changing relationships between future benefit payout and future investment return can be very useful. It is important to understand that actual experience will differ from the projections.



Projected Contribution Rates - NHRS Total										
Fiscal Year Ending June 30	**2016**	**2017**	**2018**	**2019**	**2020**	**2021**	**2022**	**2023**	**2024**	**2025**
Medical Subsidy	2.21%	2.21%	1.60%	1.60%	1.57%	1.57%	1.46%	1.46%	1.36%	1.36%
Employer Normal Cost	2.47%	2.47%	2.73%	2.73%	2.51%	2.51%	2.33%	2.33%	2.18%	2.18%
UAAL Contribution	11.08%	11.08%	12.54%	12.54%	12.03%	12.03%	11.74%	11.74%	11.63%	11.63%
Employer Subtotal	**15.76%**	**15.76%**	**16.87%**	**16.87%**	**16.11%**	**16.11%**	**15.53%**	**15.53%**	**15.17%**	**15.17%**
Member Contributions	7.71%	7.71%	7.71%	7.71%	7.71%	7.71%	7.71%	7.71%	7.71%	7.71%
Grand Total	**23.47%**	**23.47%**	**24.58%**	**24.58%**	**23.82%**	**23.82%**	**23.24%**	**23.24%**	**22.88%**	**22.88%**


Assets versus Accrued Liabilities
Assets after Smoothing
Accrued Liabilities
Assets at Market
Funded Ratio
$18,000
$16,000
$14,000
$12,000
$10,000
$8,000
$6,000
$4,000
$2,000
$-
100.0%
90.0%
80.0%
70.0%
60.0%
50.0%
40.0%
30.0%
20.0%
10.0%
0.0%
Dollars in millions
59.2%
59.4%
61.6%
63.7%
64.8%
66.1%
67.3%
68.5%
69.7%
70.9%
72.2%
2015
2016
2017
2018
2019
2020
2021
2022
2023
2024
2025
Valuation Date


Unfunded Accrued Liability and Payroll
UAAL
UAL as a % of Payroll
6,000
5,000
4,000
3,000
2,000
1,000
0
250.0%
200.0%
150.0%
100.0%
50.0%
0.0%
Unfunded Liability (millions)
UAL as a Percentage of Payroll
2015
2016
2017
2018
2019
2020
2021
2022
2023
2024
2025

The actuarial projections of retirement and medical subsidy benefits are based on the regular valuation assumptions of NHRS including an open active group with constant population (Teachers' active population is assumed to decline 0.25% per year). The projections lead to some general observations:

1. Employer contribution rates are projected to be stable and gradually decline throughout the projection period. The expected gradual decline is due to the lower normal cost for post-July 1, 2011 hires, declining medical subsidy contributions as a percent of payroll, and decreases from the asset smoothing method caused by past gains being phased into the actuarial value of assets. Normal cost is expected to increase each year with generational mortality. Note that for the current valuation, the determination of the UAAL amortization assumes no future asset gains or losses.

2. The funded ratio is projected to increase steadily to 72% by the end of the projection period. The statutory 30-year amortization period is projected to bring the plan to 100% funded by June 30, 2039.

3. The projection of the funded ratio above reflects certain factors not reflected in the funded ratio projections provided in Section B. For example, the projection above reflects the phase-in of unrecognized investment gains as of June 30, 2015.

4. The projection is highly sensitive to the actual and expected profile of new hires. This is the fourth valuation with members hired on and after July 1, 2011. As the group of those hired on or after July 1, 2011 grows, the projection results may fluctuate year to year until the population stabilizes.

SECTION B

FUNDING RESULTS

Development of Employer Contribution Rates
State Employees

Division:	Employees	Teachers	Police	Fire	Total
Normal Cost					
Age and Service Retirement	4.84%		9.84%	13.74%	5.52%
Termination	3.09%		5.07%	2.77%	3.34%
Death-in-Service	0.24%		0.26%	0.31%	0.24%
Disability	0.64%		1.70%	1.68%	0.78%
Expenses	0.35%		0.35%	0.35%	0.35%
Total	9.16%		17.22%	18.85%	10.23%
UAAL Payment*	8.92%		19.66%	20.74%	10.34%
Total Pension Contribution	18.08%		36.88%	39.59%	20.57%
Fiscal Year 2018					
Member Contributions	7.00%		11.55%	11.80%	7.60%
Employer Pension Contribution	11.08%		25.33%	27.79%	12.97%
Employer Medical Subsidy Contribution	1.07%		4.10%	4.10%	1.47%
Total Employer Contribution	**12.15%**	N/A	**29.43%**	**31.89%**	**14.44%**
Estimated Dollar Contribution	$ 69,293,751	N/A	$ 24,183,872	$ 1,318,413	$ 94,796,036
Fiscal Year 2019					
Member Contributions	7.00%		11.55%	11.80%	7.60%
Employer Pension Contribution	11.08%		25.33%	27.79%	12.97%
Employer Medical Subsidy Contribution	1.07%		4.10%	4.10%	1.47%
Total Employer Contribution	**12.15%**	N/A	**29.43%**	**31.89%**	**14.44%**
Estimated Dollar Contribution	$ 71,545,798	N/A	$ 24,969,848	$ 1,361,261	$ 97,876,907
Contribution Rates from Prior Valuation					
FY 2016#	**12.50%**		**26.38%**	**29.16%**	**14.33%**
FY 2017#	**12.50%**		**26.38%**	**29.16%**	**14.33%**

* *Unfunded Actuarial Accrued Liability, financed over a 22-year period from the contribution effective date -- 7/1/2017.*

\# *Computed in June 30, 2013 Actuarial Valuation.*

Development of Employer Contribution Rates
Political Subdivision Members

Division:	Employees	Teachers	Police	Fire	Total
Normal Cost					
Age and Service Retirement	4.84%	5.43%	9.84%	13.74%	6.18%
Termination	3.09%	2.92%	5.07%	2.77%	3.19%
Death-in-Service	0.24%	0.12%	0.26%	0.31%	0.18%
Disability	0.64%	0.25%	1.70%	1.68%	0.60%
Expenses	0.35%	0.35%	0.35%	0.35%	0.35%
Total	9.16%	9.07%	17.22%	18.85%	10.50%
UAAL Payment*	8.92%	13.63%	19.66%	20.74%	13.21%
Total Pension Contribution	18.08%	22.70%	36.88%	39.59%	23.71%
Fiscal Year 2018					
Member Contributions	7.00%	7.00%	11.55%	11.80%	7.75%
Employer Pension Contribution	11.08%	15.70%	25.33%	27.79%	15.96%
Employer Medical Subsidy Contribution	0.30%	1.66%	4.10%	4.10%	1.63%
Total Employer Contribution	**11.38%**	**17.36%**	**29.43%**	**31.89%**	**17.59%**
Estimated Dollar Contribution	$ 76,361,679	$ 199,267,090	$ 66,374,223	$ 39,842,722	$ 381,845,714
Fiscal Year 2019					
Member Contributions	7.00%	7.00%	11.55%	11.80%	7.75%
Employer Pension Contribution	11.08%	15.70%	25.33%	27.79%	15.96%
Employer Medical Subsidy Contribution	0.30%	1.66%	4.10%	4.10%	1.63%
Total Employer Contribution	**11.38%**	**17.36%**	**29.43%**	**31.89%**	**17.59%**
Estimated Dollar Contribution	$ 78,843,434	$ 205,245,103	$ 68,531,385	$ 41,137,610	$ 393,757,532
Contribution Rates from Prior Valuation					
FY 2016#	**11.17%**	**15.67%**	**26.38%**	**29.16%**	**16.17%**
FY 2017#	**11.17%**	**15.67%**	**26.38%**	**29.16%**	**16.17%**

* *Unfunded Actuarial Accrued Liability, financed over a 22-year period from the contribution effective date -- 7/1/2017.*

\# *Computed in June 30, 2013 Actuarial Valuation.*

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	$ 6,091,068,458	$ 1,151,897,324	$ 4,939,171,134
Disability benefits likely to be paid to present active members	225,738,286	113,728,413	112,009,873
Death-in-service benefits likely to be paid on behalf of present active members (employer financed portion)	119,665,770	78,272,919	41,392,851
Separation benefits (refunds of contributions and deferred allowances) likely to be paid to present active members	1,067,706,621	656,592,844	411,113,777
Benefits likely to be paid to current inactive and vested deferred members	234,426,321	-	234,426,321
Benefits to be paid to current retirees, beneficiaries, and future beneficiaries of current retirees	6,565,521,952	-	6,565,521,952
Total	$ 14,304,127,408	$ 2,000,491,500	$ 12,303,635,908
Actuarial Value of Assets	$ 7,280,760,612	$ -	$ 7,280,760,612
Liabilities to be Covered by Future Contributions	$ 7,023,366,796	$ 2,000,491,500	$ 5,022,875,296
Funded Ratio			59.2%

NHRS Total Pension
Unfunded Actuarial Accrued Liability Payoff Projection
($Millions)

Level Percent Amortization

Year	Fiscal Year Ending June 30,	Employer Contribution Rates UAAL Payment	Projected Payroll	UAAL Beginning of Year	UAAL Payment	UAAL End of Year	Beginning of Year Funded Ratio
	2016	10.82%	$ 2,656	$ 5,023	$ 287	$ 5,089	59.2%
	2017	10.82%	2,739	5,089	296	5,151	59.2%
1	2018	12.54%	2,825	5,151	354	5,158	60.3%
2	2019	12.54%	2,913	5,158	365	5,153	61.5%
3	2020	12.54%	3,004	5,153	377	5,137	62.8%
4	2021	12.54%	3,098	5,137	389	5,107	64.1%
5	2022	12.54%	3,196	5,107	401	5,062	65.4%
6	2023	12.54%	3,297	5,062	413	5,000	66.7%
7	2024	12.54%	3,401	5,000	427	4,921	68.1%
8	2025	12.54%	3,508	4,921	440	4,822	69.6%
9	2026	12.54%	3,618	4,822	454	4,702	71.1%
10	2027	12.54%	3,732	4,702	468	4,558	72.7%
11	2028	12.54%	3,850	4,558	483	4,388	74.3%
12	2029	12.54%	3,972	4,388	498	4,190	76.1%
13	2030	12.54%	4,097	4,190	514	3,962	78.0%
14	2031	12.54%	4,226	3,962	530	3,700	80.0%
15	2032	12.54%	4,359	3,700	547	3,402	82.1%
16	2033	12.54%	4,497	3,402	564	3,065	84.3%
17	2034	12.54%	4,639	3,065	582	2,684	86.6%
18	2035	12.54%	4,785	2,684	600	2,257	89.1%
19	2036	12.54%	4,935	2,257	619	1,780	91.6%
20	2037	12.54%	5,091	1,780	638	1,247	94.3%
21	2038	12.54%	5,251	1,247	659	656	97.1%
22	2039	12.54%	5,416	656	679	-	100.0%

The funded ratio is projected in this amortization schedule assuming all actuarial assumptions are exactly met. Projections are not predictions of specific future events and do not provide numeric precision in absolute terms. It is important to understand that actual experience will differ from the projections shown on this page. When experience differs from the assumptions, as it often does, the employer's contribution rate can vary from year-to-year.

NHRS Total Pension
Unfunded Actuarial Accrued Liability Payoff Projection
($Millions)

Level Dollar Amortization
(Not the Statutory Method)

(Hypothetical Illustration)

Year	Fiscal Year Ending June 30,	UAAL Beginning of Year	UAAL Payment	UAAL End of Year	Beginning of Year Funded Ratio
	2016	$ 5,023	$ 287	$ 5,089	59.2%
	2017	5,089	296	5,151	59.2%
1	2018	5,151	460	5,049	60.8%
2	2019	5,049	460	4,939	62.5%
3	2020	4,939	460	4,821	64.6%
4	2021	4,821	460	4,695	66.6%
5	2022	4,695	460	4,559	68.5%
6	2023	4,559	460	4,414	70.5%
7	2024	4,414	460	4,258	72.4%
8	2025	4,258	460	4,090	74.4%
9	2026	4,090	460	3,911	76.3%
10	2027	3,911	460	3,718	78.3%
11	2028	3,718	460	3,512	80.2%
12	2029	3,512	460	3,291	82.1%
13	2030	3,291	460	3,053	84.1%
14	2031	3,053	460	2,799	86.0%
15	2032	2,799	460	2,526	87.9%
16	2033	2,526	460	2,233	89.7%
17	2034	2,233	460	1,919	91.6%
18	2035	1,919	460	1,582	93.4%
19	2036	1,582	460	1,221	95.1%
20	2037	1,221	460	833	96.8%
21	2038	833	460	418	98.5%
22	2039	418	460	-	100.0%

The funded ratio is projected in this amortization schedule assuming all actuarial assumptions are exactly met. Projections are not predictions of specific future events and do not provide numeric precision in absolute terms. It is important to understand that actual experience will differ from the projections shown on this page. When experience differs from the assumptions, as it often does, the employer's contribution rate can vary from year-to-year.

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	463,618,083	16,046,892
2. For unfunded actuarial accrued liability	5,022,875,296	741,826,561
3. Total	5,486,493,379	757,873,453
C. Actuarial present value of expected future member contributions	1,536,873,417	-
D. Total Present and Expected Future Resources	$ 14,304,127,408	$ 777,388,932

Present Value of Expected Future Benefit Payments

	Pension	Medical Subsidy
A. To retirees and beneficiaries	$ 6,565,521,952	$ 610,819,455
B. To vested terminated members	171,453,678	-
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	5,503,687,635	150,522,585
2. Allocated to service likely to be rendered after valuation date	2,000,491,500	16,046,892
3. Total	7,504,179,135	166,569,477
E. Total Actuarial Present Value of Expected Future Pension Payments	$ 14,304,127,408	$ 777,388,932

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	815,022,527	85,679,365
(8) Expected UAAL after changes: (5)+(6)+(7)	5,211,591,288	757,499,003
(9) Actual UAAL as of June 30, 2015	5,022,875,296	741,826,561
(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#^	59.2	99	25	2.0	2.8	4.8	33%

 # After reflection of changes in assumptions.
** After reflection of changes in legislation.*
**** Unavailable.*
^ The standard deviation of investment return as of June 30, 2015 was updated in the 7/1/2010-6/30/2015 experience study.

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.

Short Condition 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 short condition test is one means of checking a system's progress under its funding program. In a short condition 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; and
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, with assumptions and benefits unchanged and all assumptions met, 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.

As of June 30, 2015, there were 66% of assets needed to cover retiree liabilities, as shown in the table below. Decreases in this percent during a period of contribution discipline may be attributable in part to adverse experience and changes to more conservative assumptions such as in both June 30, 2011 and June 30, 2015 for NHRS.

Prior to June 30, 2007, the statutory funding method did not report a funded status nor did it report that assets were below the retiree liability. The assets in the plan are not sufficient to cover current retiree liabilities and the ratio of retiree benefit payroll to the market value of assets is 0.10. This means that approximately 12 years of current retiree benefit payments can be paid from current assets if all assumptions are met and ignoring future contributions. The ability to make such payments beyond that period is heavily dependent upon future contributions and future investment return.

Total of all Groups
($ in Thousands)

Fiscal Year	Projected Pension Liabilities for (1) Aggregate Member Contributions	(2) Current Retirees & Beneficiaries	(3) Active & Inactive Members (Employer Financed Portion)	Net Assets Available for Benefits	Percentage of Accrued Liabilities Covered by Net Assets Available (1)	(2)	(3)
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	2,949,169	6,098,512	2,440,932	7,280,761	100%	72%	0%
2015 #	2,949,169	6,565,522	2,788,945	7,280,761	100%	66%	0%

 # After reflection of changes in assumptions.
** After reflection of changes in legislation.*

Short Condition Test -- Comparative Statement
($ in Thousands)

Group	Fiscal Year		Projected Pension Liabilities for (1) Aggregate Member Contributions	(2) Current Retirees & Beneficiaries	(3) Active & Inactive Members (Employer Financed Portion)	Net Assets Available for Benefits	Percentage of Accrued Liabilities Covered by Net Assets Available (1)	(2)	(3)
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	#	1,137,601	2,007,299	863,247	2,403,294	100%	63%	0%
Teachers	2015	#	1,155,922	2,555,611	1,141,245	2,682,083	100%	60%	0%
Police	2015	#	433,215	1,364,908	543,229	1,477,517	100%	77%	0%
Fire	2015	#	222,431	637,704	241,223	717,867	100%	78%	0%

 # After reflection of changes in assumptions.
** After reflection of changes in legislation.*

Development of Pension Actuarial Liabilities
June 30, 2015

Employees Pension

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	$ 2,060,315,443	$ 349,140,078	$ 1,711,175,365
Disability benefits likely to be paid to present active members	73,468,436	43,903,221	29,565,215
Death-in-service benefits likely to be paid on behalf of present active members (employer financed portion)	65,708,963	44,293,906	21,415,057
Separation benefits (refunds of contributions and deferred allowances) likely to be paid to present active members	385,575,136	255,934,107	129,641,029
Benefits likely to be paid to current inactive and vested deferred members	109,051,811	-	109,051,811
Benefits to be paid to current retirees, beneficiaries, and future beneficiaries of current retirees	2,007,298,676	-	2,007,298,676
Total	$ 4,701,418,465	$ 693,271,312	$ 4,008,147,153
Actuarial Value of Assets	$ 2,403,294,028	$ -	$ 2,403,294,028
Liabilities to be Covered by Future Contributions	$ 2,298,124,437	$ 693,271,312	$ 1,604,853,125
Funded Ratio			60.0%

Employees Pension
Unfunded Actuarial Accrued Liability Payoff Projection
($Millions)

Year	Fiscal Year Ending June 30,	Employer Contribution Rates UAAL Payment	Projected Payroll	UAAL Beginning of Year	UAAL Payment	UAAL End of Year	Beginning of Year Funded Ratio
	2016	8.70%	$ 1,164	$ 1,605	$ 101	$ 1,617	60.0%
	2017	8.70%	1,202	1,617	105	1,625	60.3%
1	2018	8.92%	1,241	1,625	111	1,628	61.6%
2	2019	8.92%	1,281	1,628	114	1,628	62.8%
3	2020	8.92%	1,323	1,628	118	1,624	64.1%
4	2021	8.92%	1,366	1,624	122	1,615	65.5%
5	2022	8.92%	1,410	1,615	126	1,602	66.8%
6	2023	8.92%	1,456	1,602	130	1,583	68.1%
7	2024	8.92%	1,503	1,583	134	1,559	69.5%
8	2025	8.92%	1,552	1,559	138	1,529	70.9%
9	2026	8.92%	1,602	1,529	143	1,492	72.4%
10	2027	8.92%	1,654	1,492	148	1,447	73.9%
11	2028	8.92%	1,708	1,447	152	1,394	75.5%
12	2029	8.92%	1,764	1,394	157	1,332	77.1%
13	2030	8.92%	1,821	1,332	162	1,261	78.9%
14	2031	8.92%	1,880	1,261	168	1,178	80.8%
15	2032	8.92%	1,941	1,178	173	1,084	82.7%
16	2033	8.92%	2,004	1,084	179	977	84.8%
17	2034	8.92%	2,069	977	185	856	87.1%
18	2035	8.92%	2,136	856	191	720	89.4%
19	2036	8.92%	2,205	720	197	568	91.9%
20	2037	8.92%	2,277	568	203	399	94.5%
21	2038	8.92%	2,351	399	210	210	97.2%
22	2039	8.92%	2,427	210	216	-	100.0%

The funded ratio is projected in this amortization schedule assuming all actuarial assumptions are exactly met. Projections are not predictions of specific future events and do not provide numeric precision in absolute terms. It is important to understand that actual experience will differ from the projections shown on this page. When experience differs from the assumptions, as it often does, the employer's contribution rate can vary from year-to-year.

Development of Pension Actuarial Liabilities
June 30, 2015

Teachers Pension

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	$ 2,458,548,115	$ 445,288,274	$ 2,013,259,841
Disability benefits likely to be paid to present active members	47,866,350	20,183,184	27,683,166
Death-in-service benefits likely to be paid on behalf of present active members (employer financed portion)	38,187,426	25,418,156	12,769,270
Separation benefits (refunds of contributions and deferred allowances) likely to be paid to present active members	400,997,545	257,354,413	143,643,132
Benefits likely to be paid to current inactive and vested deferred members	99,811,978	-	99,811,978
Benefits to be paid to current retirees, beneficiaries, and future beneficiaries of current retirees	2,555,610,648	-	2,555,610,648
Total	$ 5,601,022,062	$ 748,244,027	$ 4,852,778,035
Actuarial Value of Assets	$ 2,682,082,500	$ -	$ 2,682,082,500
Liabilities to be Covered by Future Contributions	$ 2,918,939,562	$ 748,244,027	$ 2,170,695,535
Funded Ratio			55.3%

Teachers Pension
Unfunded Actuarial Accrued Liability Payoff Projection
($Millions)

Year	Fiscal Year Ending June 30,	Employer Contribution Rates UAAL Payment	Projected Payroll	UAAL Beginning of Year	UAAL Payment	UAAL End of Year	Beginning of Year Funded Ratio
	2016	10.65%	$ 1,082	$ 2,171	$ 115	$ 2,209	55.3%
	2017	10.65%	1,114	2,209	119	2,246	54.8%
1	2018	13.63%	1,147	2,246	156	2,247	55.8%
2	2019	13.63%	1,181	2,247	161	2,243	56.8%
3	2020	13.63%	1,216	2,243	166	2,234	58.1%
4	2021	13.63%	1,252	2,234	171	2,219	59.5%
5	2022	13.63%	1,290	2,219	176	2,198	60.9%
6	2023	13.63%	1,329	2,198	181	2,170	62.3%
7	2024	13.63%	1,369	2,170	187	2,134	63.8%
8	2025	13.63%	1,410	2,134	192	2,090	65.4%
9	2026	13.63%	1,452	2,090	198	2,036	67.2%
10	2027	13.63%	1,496	2,036	204	1,972	69.0%
11	2028	13.63%	1,541	1,972	210	1,897	70.9%
12	2029	13.63%	1,587	1,897	216	1,811	72.9%
13	2030	13.63%	1,635	1,811	223	1,711	75.1%
14	2031	13.63%	1,684	1,711	230	1,597	77.3%
15	2032	13.63%	1,735	1,597	236	1,468	79.7%
16	2033	13.63%	1,787	1,468	244	1,322	82.2%
17	2034	13.63%	1,841	1,322	251	1,158	84.9%
18	2035	13.63%	1,896	1,158	258	975	87.6%
19	2036	13.63%	1,953	975	266	770	90.5%
20	2037	13.63%	2,012	770	274	542	93.5%
21	2038	13.63%	2,072	542	282	289	96.7%
22	2039	13.63%	2,134	289	291	-	100.0%

The funded ratio is projected in this amortization schedule assuming all actuarial assumptions are exactly met. Projections are not predictions of specific future events and do not provide numeric precision in absolute terms. It is important to understand that actual experience will differ from the projections shown on this page. When experience differs from the assumptions, as it often does, the employer's contribution rate can vary from year-to-year.

Development of Pension Actuarial Liabilities
June 30, 2015

Police Pension

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	$ 1,020,924,884	$ 214,805,949	$ 806,118,935
Disability benefits likely to be paid to present active members	71,887,780	33,365,239	38,522,541
Death-in-service benefits likely to be paid on behalf of present active members (employer financed portion)	9,854,144	5,447,491	4,406,653
Separation benefits (refunds of contributions and deferred allowances) likely to be paid to present active members	219,546,981	114,058,510	105,488,471
Benefits likely to be paid to current inactive and vested deferred members	21,907,521	-	21,907,521
Benefits to be paid to current retirees, beneficiaries, and future beneficiaries of current retirees	1,364,908,348	-	1,364,908,348
Total	$ 2,709,029,658	$ 367,677,189	$ 2,341,352,469
Actuarial Value of Assets	$ 1,477,516,730	$ -	$ 1,477,516,730
Liabilities to be Covered by Future Contributions	$ 1,231,512,928	$ 367,677,189	$ 863,835,739
Funded Ratio			63.1%

Police Pension
Unfunded Actuarial Accrued Liability Payoff Projection
($Millions)

Year	Fiscal Year Ending June 30,	Employer Contribution Rates: UAAL Payment	Projected Payroll	UAAL Beginning of Year	UAAL Payment	UAAL End of Year	Beginning of Year Funded Ratio
	2016	16.87%	$ 289	$ 864	$ 49	$ 876	63.1%
	2017	16.87%	298	876	50	888	63.3%
1	2018	19.66%	308	888	61	889	64.3%
2	2019	19.66%	318	889	63	888	65.3%
3	2020	19.66%	328	888	64	886	66.5%
4	2021	19.66%	339	886	67	881	67.6%
5	2022	19.66%	350	881	69	874	68.8%
6	2023	19.66%	361	874	71	863	70.0%
7	2024	19.66%	373	863	73	850	71.2%
8	2025	19.66%	385	850	76	833	72.5%
9	2026	19.66%	398	833	78	813	73.9%
10	2027	19.66%	411	813	81	788	75.3%
11	2028	19.66%	424	788	83	759	76.8%
12	2029	19.66%	438	759	86	725	78.5%
13	2030	19.66%	452	725	89	685	80.2%
14	2031	19.66%	467	685	92	640	82.0%
15	2032	19.66%	482	640	95	588	83.9%
16	2033	19.66%	498	588	98	529	86.0%
17	2034	19.66%	514	529	101	463	88.1%
18	2035	19.66%	531	463	104	388	90.3%
19	2036	19.66%	548	388	108	305	92.7%
20	2037	19.66%	566	305	111	212	95.1%
21	2038	19.66%	584	212	115	108	97.6%
22	2039	19.66%	603	108	119	-	100.0%

The funded ratio is projected in this amortization schedule assuming all actuarial assumptions are exactly met. Projections are not predictions of specific future events and do not provide numeric precision in absolute terms. It is important to understand that actual experience will differ from the projections shown on this page. When experience differs from the assumptions, as it often does, the employer's contribution rate can vary from year-to-year.

Development of Pension Actuarial Liabilities
June 30, 2015

Fire Pension

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	$ 551,280,016	$ 142,663,023	$ 408,616,993
Disability benefits likely to be paid to present active members	32,515,720	16,276,769	16,238,951
Death-in-service benefits likely to be paid on behalf of present active members (employer financed portion)	5,915,237	3,113,366	2,801,871
Separation benefits (refunds of contributions and deferred allowances) likely to be paid to present active members	61,586,959	29,245,814	32,341,145
Benefits likely to be paid to current inactive and vested deferred members	3,655,011	-	3,655,011
Benefits to be paid to current retirees, beneficiaries, and future beneficiaries of current retirees	637,704,280	-	637,704,280
Total	$ 1,292,657,223	$ 191,298,972	$ 1,101,358,251
Actuarial Value of Assets	$ 717,867,354	$ -	$ 717,867,354
Liabilities to be Covered by Future Contributions	$ 574,789,869	$ 191,298,972	$ 383,490,897
Funded Ratio			65.2%

Fire Pension
Unfunded Actuarial Accrued Liability Payoff Projection
($Millions)

Year	Fiscal Year Ending June 30,	Employer Contribution Rates UAAL Payment	Projected Payroll	UAAL Beginning of Year	UAAL Payment	UAAL End of Year	Beginning of Year Funded Ratio
	2016	18.27%	$ 121	$ 383	$ 22	$ 389	65.2%
	2017	18.27%	125	389	23	393	65.5%
1	2018	20.74%	129	393	27	394	66.4%
2	2019	20.74%	133	394	28	394	67.4%
3	2020	20.74%	137	394	28	394	68.4%
4	2021	20.74%	141	394	29	393	69.4%
5	2022	20.74%	146	393	30	390	70.5%
6	2023	20.74%	151	390	31	386	71.6%
7	2024	20.74%	156	386	32	381	72.7%
8	2025	20.74%	161	381	33	374	73.8%
9	2026	20.74%	166	374	34	366	75.0%
10	2027	20.74%	171	366	35	356	76.3%
11	2028	20.74%	177	356	37	343	77.7%
12	2029	20.74%	183	343	38	329	79.1%
13	2030	20.74%	189	329	39	312	80.6%
14	2031	20.74%	195	312	40	293	82.3%
15	2032	20.74%	201	293	42	271	84.0%
16	2033	20.74%	208	271	43	246	85.8%
17	2034	20.74%	215	246	45	217	87.8%
18	2035	20.74%	222	217	46	185	89.9%
19	2036	20.74%	229	185	47	150	92.0%
20	2037	20.74%	236	150	49	110	94.3%
21	2038	20.74%	244	110	51	65	96.7%
22	2039	20.74%	252	65	52	-	100.0%

The funded ratio is projected in this amortization schedule assuming all actuarial assumptions are exactly met. Projections are not predictions of specific future events and do not provide numeric precision in absolute terms. It is important to understand that actual experience will differ from the projections shown on this page. When experience differs from the assumptions, as it often does, the employer's contribution rate can vary from year-to-year.

SECTION C

FUND ASSETS

Comparative Balance Sheet at Market Value

	June 30, 2015	June 30, 2014
ASSETS		
Current Assets		
Cash - Local Custodian	$ 5,274,859	$ 9,908,820
Contributions Receivable	61,645,383	64,131,764
OPEB Plan Receivable	13,724,010	12,405,894
Receivable for Investments Sold	10,825,113	11,960,669
Interest and Dividends Receivable	17,448,626	18,578,017
Other Receivables	0	0
Foreign Taxes Receivable	2,526,081	2,496,541
Prepaid Management Fees	84,905	97,484
Total Current Assets	$ 111,528,977	$ 119,579,189
Capital Assets (Net of Accumulated Depreciation)	75,588	141,143
Investments at Quoted Market Value:		
Domestic Investments	2,838,737,954	3,106,663,594
International Investments	1,190,058,988	1,270,281,116
Global Investments	243,915,975	235,015,968
Fixed Income Investments	1,731,783,453	1,576,619,374
Investments at Fair Market Value:		
Alternative Investments	726,224,767	470,908,893
Absolute Return Strategies	2,918,343	4,073,848
Commercial R/E Investments (Net Equity)	676,602,300	657,232,721
Temporary Investments	50,414,710	13,164,567
TOTAL ASSETS	$ 7,572,261,055	$ 7,453,680,413
LIABILITIES		
Management Fees & Other Payables	$ 9,079,507	$ 8,993,907
OPEB Plan Payable	13,724,010	12,405,894
Payable for Investments Purchased	19,401,347	18,218,626
TOTAL LIABILITIES	$ 42,204,864	$ 39,618,427
TOTAL FUND BALANCES	$ 7,530,056,191	$ 7,414,061,986

Reconciliation of System Assets

Item	June 30, 2015 Employees	Teachers	Police#	Fire#	Total
A. Market Value of Assets at Beginning of Year	$ 2,446,842,286	$ 2,725,757,301	$ 1,505,875,853	$ 735,586,546	$ 7,414,061,986
B. Revenues and Expenditures					
1. Contributions					
a. Employee Contributions	$ 81,655,987	$ 74,770,324	$ 33,413,478	$ 14,223,379	$ 204,063,168
b. Employer Contributions	128,680,211	146,763,706	72,374,414	33,390,401	381,208,732
c. Total	$ 210,336,198	$ 221,534,030	$ 105,787,892	$ 47,613,780	$ 585,271,900
2. Investment Return					
a. Interest, Dividends, and Other Income	$ 50,354,762	$ 55,828,914	$ 30,936,764	$ 15,093,525	$ 152,213,965
b. Net Realized and Unrealized Gains/(Losses)	40,725,704	45,260,908	25,223,143	12,307,418	123,517,173
c. Investment Expenses	(8,261,238)	(9,134,791)	(5,067,548)	(2,472,535)	(24,936,112)
d. Net Investment Income	$ 82,819,228	$ 91,955,031	$ 51,092,359	$ 24,928,408	$ 250,795,026
3. Benefits and Refunds					
a. Refunds	$ (14,387,661)	$ (7,073,141)	$ (4,293,877)	$ (590,060)	$ (26,344,739)
b. Regular Monthly Benefits	(205,278,103)	(251,573,828)	(116,483,717)	(55,262,640)	(628,598,288)
c. Partial Lump-Sum Benefits Paid	(1,732,467)	(630,965)	(257,677)	(91,600)	(2,712,709)
d. Medical Premium Subsidy Payments	(14,161,406)	(22,762,091)	(10,562,992)	(5,811,191)	(53,297,680)
e. Total	$ (235,559,637)	$ (282,040,025)	$ (131,598,263)	$ (61,755,491)	$ (710,953,416)
4. **Administrative Expenses**	$ (2,519,314)	$ (2,793,570)	$ (1,547,753)	$ (755,100)	$ (7,615,737)
5. Miscellaneous Expenses	$ (520,592)	$ (520,981)	$ (313,286)	$ (148,709)	$ (1,503,568)
6. Interest Expense on OPEB Deficit	$ -	$ (1,113,313)	$ -	$ -	$ (1,113,313)
7. Interest Income on OPEB Deficit	$ 763,732	$ -	$ 178,286	$ 171,295	$ 1,113,313
8. Transfers	$ -	$ -	$ -	$ -	$ -
C. Market Value of Assets at End of Year	$ 2,502,161,901	$ 2,752,778,473	$ 1,529,475,088	$ 745,640,729	$ 7,530,056,191

 # 401(h) subsidy income and expense reported by NHRS in total for Police and Fire was allocated approximately 40% to Police and 60% to Fire for purposes of this schedule.

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%	7.25%			
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
June 30, 2015

	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.

SECTION D

ACCOUNTING DISCLOSURES

Schedule of Pension Funding Progress

Actuarial Valuation Date	Actuarial Value of Assets (a)	Actuarial Accrued Liability (AAL) Entry Age (b)	Unfunded AAL (UAAL) (b)-(a)	Funded Ratio (a)/(b)	Covered Payroll (c)	UAAL as a Percent of Covered Payroll [(b)-(a)]/(c)
June 30, 2007*	$ 4,862,256,315	$ 7,259,715,170	$ 2,397,458,855	67.0%	$ 2,195,339,382	109.2 %
June 30, 2008	5,302,034,006	7,821,316,352	2,519,282,346	67.8%	2,308,320,669	109.1 %
June 30, 2009*	4,937,319,506	8,475,051,817	3,537,732,311	58.3%	2,448,287,042	144.5 %
June 30, 2010	5,233,838,359	8,953,932,346	3,720,093,987	58.5%	2,481,383,620	149.9 %
June 30, 2011#*	5,740,516,293	9,998,251,218	4,257,734,925	57.4%	2,517,779,470	169.1 %
June 30, 2012	5,817,881,588	10,361,600,451	4,543,718,863	56.1%	2,487,757,437	182.6 %
June 30, 2013	6,070,681,258	10,708,768,437	4,638,087,179	56.7%	2,501,741,708	185.4 %
June 30, 2014	6,700,553,435	11,045,173,866	4,344,620,431	60.7%	2,507,898,809	173.2 %
June 30, 2015	7,280,760,612	11,488,613,381	4,207,852,769	63.4%	2,575,031,210	163.4 %
June 30, 2015#	7,280,760,612	12,303,635,908	5,022,875,296	59.2%	2,575,031,210	195.1 %

** After Benefit/Legislative changes.*
 # After Assumption changes/methods.

Post-Retirement Medical Subsidy
GASB Statement No. 43 Reporting

Determination of the Annual Required Contribution for Fiscal Years 2018 and 2019	Contributions Expressed as Percents of Payroll				
	State Employees	Political Subdivision Employees	Teachers	Police & Fire	Total
Normal Cost					
Age and Service Retirement	0.00%	0.00%	0.00%	0.53%	0.08%
Termination	0.00%	0.00%	0.00%	0.07%	0.01%
Death-in-Service	0.00%	0.00%	0.00%	0.02%	0.00%
Disability	0.00%	0.00%	0.00%	0.09%	0.01%
Total Normal Cost	0.00%	0.00%	0.00%	0.71%	0.10%
Amortization of Unfunded Actuarial Accrued Liabilities#	1.07%	0.30%	1.66%	3.39%	1.50%
Annual Required Contribution (ARC)	1.07%	0.30%	1.66%	4.10%	1.60%
Fiscal Year 2018 (ARC)					
Percent of Payroll	1.07%	0.30%	1.66%	4.10%	1.60%
Estimated Dollars	$ 6,102,413	$ 2,013,050	$ 19,054,342	$ 17,907,938	$ 45,077,743
Fiscal Year 2019 (ARC)					
Percent of Payroll	1.07%	0.30%	1.66%	4.10%	1.60%
Estimated Dollars	$ 6,300,741	$ 2,078,474	$ 19,625,972	$ 18,489,946	$ 46,495,133

Accrued Medical Subsidy Liabilities, $761,342,040 were more than applicable assets of $19,515,479.

The calculations above show the employer's Annual Required Contribution (ARC) for the years ended June 30, 2018 and June 30, 2019.

 # 22-year amortization of UAAL, but not less than solvency rate.

Determination of Unfunded Actuarial Accrued Liability (Medical) 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	$ 78,328,478	$ 61,630,533	$ 264,010,132	$ 206,850,312	$ 610,819,455
2. Vested Terminated Members	-	-	-	-	-
3. Active Members	-	-	-	166,569,477	166,569,477
Total Present Value of Future Medical Benefits	78,328,478	61,630,533	264,010,132	373,419,789	777,388,932
B. Present Value of Future Employer Normal Costs	-	-	-	16,046,892	16,046,892
C. Present Value of Future Contributions from Current Active Members	-	-	-	-	-
D. Actuarial Medical Accrued Liability (A.-B.-C.)	78,328,478	61,630,533	264,010,132	357,372,897	761,342,040
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.)	$ 77,775,675	$ 39,669,078	$ 277,315,353	$ 347,066,455	$ 741,826,561

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.

Determination of Medical Subsidy Contribution Rates

There are four separate 401(h) subgroups: 1) State Employees; 2) Political Subdivision Employees; 3) Teachers and 4) Police/Fire.

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.

The 401(h) cash flow projections on the following pages are used to develop the employer contribution rates for the medical subsidy. The medical subsidy contribution rates are the computed amounts needed for pay-as-you-go financing of the retiree medical subsidy with a 20% margin for adverse experience by June 30, 2018 and to maintain that margin thereafter.

It is imperative that NHRS monitor collections closely to ensure the necessary funds are collected to provide the benefit.

NHRS - 401(h) Cash Flow Projections
June 30, 2015

State Employees

Year Ending	Valuation Pay	Employer Contributions Rate -- Total	Employer Contributions Rate -- Health	Employer Contributions Dollars -- Health	Benefits Paid	Solvency Assets
6/30/2015	$ 518,140,590					$ 570,203
6/30/2016	534,980,159	12.50%	1.64%	$ 8,773,675	$ 8,106,775	1,302,618
6/30/2017	552,367,014	12.50%	1.64%	9,058,819	7,663,666	2,842,785
6/30/2018	570,318,942	12.15%	1.07%	6,102,413	7,253,063	1,856,526
6/30/2019	588,854,308	12.15%	1.07%	6,300,741	6,856,811	1,414,896
6/30/2020	607,992,073	12.15%	1.07%	6,476,807	6,476,807	
6/30/2021	627,751,815	12.05%	0.97%	6,115,305	6,115,305	
6/30/2022	648,153,749	11.97%	0.89%	5,755,806	5,755,806	
6/30/2023	669,218,746	11.89%	0.81%	5,405,266	5,405,266	
6/30/2024	690,968,355	11.81%	0.73%	5,052,537	5,052,537	
6/30/2025	713,424,827	11.74%	0.66%	4,706,665	4,706,665	
6/30/2026	736,611,134	11.67%	0.59%	4,365,664	4,365,664	
6/30/2027	760,550,996	11.61%	0.53%	4,029,376	4,029,376	
6/30/2028	785,268,903	11.55%	0.47%	3,709,191	3,709,191	
6/30/2029	810,790,142	11.50%	0.42%	3,400,645	3,400,645	
6/30/2030	837,140,822	11.45%	0.37%	3,107,441	3,107,441	
6/30/2031	864,347,899	11.41%	0.33%	2,819,443	2,819,443	
6/30/2032	892,439,206	11.36%	0.28%	2,541,459	2,541,459	
6/30/2033	921,443,480	11.33%	0.25%	2,282,942	2,282,942	
6/30/2034	951,390,393	11.29%	0.21%	2,039,801	2,039,801	
6/30/2035	982,310,581	11.26%	0.18%	1,812,630	1,812,630	
6/30/2036	1,014,235,675	11.24%	0.16%	1,601,941	1,601,941	
6/30/2037	1,047,198,334	11.21%	0.13%	1,408,143	1,408,143	
6/30/2038	1,081,232,280	11.19%	0.11%	1,232,090	1,232,090	
6/30/2039	1,116,372,329	11.18%	0.10%	1,068,521	1,068,521	

NHRS - 401(h) Cash Flow Projections
June 30, 2015

Political Subdivision Employees

Year Ending	Valuation Pay	Employer Contribution Rate -- Total	Employer Contribution Rate -- Health	Employer Contribution Dollars -- Health	Benefits Paid	Solvency Assets
6/30/2015	$ 609,625,359					$ 22,652,703
6/30/2016	629,438,183	11.17%	0.31%	$ 1,951,258	$5,929,124	20,172,960
6/30/2017	649,894,924	11.17%	0.31%	2,014,674	5,721,725	17,794,069
6/30/2018	671,016,509	11.38%	0.30%	2,013,050	5,503,533	15,467,125
6/30/2019	692,824,546	11.38%	0.30%	2,078,474	5,283,298	13,267,493
6/30/2020	715,341,344	11.38%	0.30%	2,146,024	5,083,682	
6/30/2021	738,589,938	11.38%	0.30%	2,215,770	4,861,979	
6/30/2022	762,594,111	11.38%	0.30%	2,287,782	4,632,036	
6/30/2023	787,378,420	11.38%	0.30%	2,362,135	4,406,462	
6/30/2024	812,968,219	11.38%	0.30%	2,438,905	4,181,238	
6/30/2025	839,389,686	11.38%	0.30%	2,518,169	3,949,609	
6/30/2026	866,669,851	11.38%	0.30%	2,600,010	3,725,236	
6/30/2027	894,836,621	11.38%	0.30%	2,684,510	3,502,132	
6/30/2028	923,918,811	11.38%	0.30%	2,771,756	3,272,630	
6/30/2029	953,946,172	11.38%	0.30%	2,861,839	3,047,040	
6/30/2030	984,949,423	11.37%	0.29%	2,823,927	2,823,927	
6/30/2031	1,016,960,279	11.34%	0.26%	2,602,428	2,602,428	
6/30/2032	1,050,011,488	11.31%	0.23%	2,383,881	2,383,881	
6/30/2033	1,084,136,861	11.28%	0.20%	2,171,908	2,171,908	
6/30/2034	1,119,371,309	11.26%	0.18%	1,966,064	1,966,064	
6/30/2035	1,155,750,877	11.23%	0.15%	1,767,605	1,767,605	
6/30/2036	1,193,312,781	11.21%	0.13%	1,577,767	1,577,767	
6/30/2037	1,232,095,446	11.19%	0.11%	1,397,690	1,397,690	
6/30/2038	1,272,138,548	11.18%	0.10%	1,228,366	1,228,366	
6/30/2039	1,313,483,051	11.16%	0.08%	1,070,624	1,070,624	

NHRS - 401(h) Cash Flow Projections
June 30, 2015

Teachers

Year Ending	Valuation Pay	Employer Contributions Rate -- Total	Rate -- Health	Dollars -- Health	Benefits Paid	Solvency Assets
6/30/2015	$1,050,447,092					$ (13,724,010)
6/30/2016	1,081,960,505	15.67%	2.95%	$ 31,917,835	$22,698,630	(5,165,600)
6/30/2017	1,114,419,320	15.67%	2.95%	32,875,370	21,773,312	5,964,402
6/30/2018	1,147,851,900	17.36%	1.66%	19,054,342	20,933,152	4,449,904
6/30/2019	1,182,287,457	17.36%	1.66%	19,625,972	20,240,524	4,135,692
6/30/2020	1,217,756,081	17.31%	1.61%	19,613,226	19,613,226	
6/30/2021	1,254,288,763	17.22%	1.52%	19,010,325	19,010,325	
6/30/2022	1,291,917,426	17.12%	1.42%	18,400,788	18,400,788	
6/30/2023	1,330,674,949	17.04%	1.34%	17,775,263	17,775,263	
6/30/2024	1,370,595,197	16.95%	1.25%	17,135,608	17,135,608	
6/30/2025	1,411,713,053	16.87%	1.17%	16,476,285	16,476,285	
6/30/2026	1,454,064,445	16.79%	1.09%	15,797,896	15,797,896	
6/30/2027	1,497,686,378	16.71%	1.01%	15,102,431	15,102,431	
6/30/2028	1,542,616,969	16.63%	0.93%	14,391,261	14,391,261	
6/30/2029	1,588,895,478	16.56%	0.86%	13,664,889	13,664,889	
6/30/2030	1,636,562,342	16.49%	0.79%	12,926,353	12,926,353	
6/30/2031	1,685,659,212	16.42%	0.72%	12,178,784	12,178,784	
6/30/2032	1,736,228,988	16.36%	0.66%	11,423,780	11,423,780	
6/30/2033	1,788,315,858	16.30%	0.60%	10,664,590	10,664,590	
6/30/2034	1,841,965,334	16.24%	0.54%	9,904,904	9,904,904	
6/30/2035	1,897,224,294	16.18%	0.48%	9,148,806	9,148,806	
6/30/2036	1,954,141,023	16.13%	0.43%	8,400,756	8,400,756	
6/30/2037	2,012,765,254	16.08%	0.38%	7,665,504	7,665,504	
6/30/2038	2,073,148,212	16.04%	0.34%	6,952,071	6,952,071	
6/30/2039	2,135,342,658	15.99%	0.29%	6,257,302	6,257,302	

NHRS - 401(h) Cash Flow Projections
June 30, 2015

Police and Fire

Year Ending	Valuation Pay	Employer Contributions			Benefits Paid	Solvency Assets
		Rate -- Total	Rate -- Health	Dollars -- Health		
6/30/2015	$ 396,818,169					$ 10,630,843
6/30/2016	409,714,759	N/A	3.84%	$ 15,733,047	$17,214,003	9,866,938
6/30/2017	423,030,489	N/A	3.84%	16,244,371	18,121,803	8,636,802
6/30/2018	436,778,980	N/A	4.10%	17,907,938	18,909,214	8,225,399
6/30/2019	450,974,297	N/A	4.10%	18,489,946	19,719,070	7,548,061
6/30/2020	465,630,962	N/A	4.10%	19,090,869	20,473,025	
6/30/2021	480,763,968	N/A	4.10%	19,711,323	21,087,711	
6/30/2022	496,388,797	N/A	4.10%	20,351,941	21,485,318	
6/30/2023	512,521,433	N/A	4.10%	21,013,379	21,697,581	
6/30/2024	529,178,380	N/A	4.10%	21,696,314	21,719,046	
6/30/2025	546,376,677	N/A	3.96%	21,617,014	21,617,014	
6/30/2026	564,133,919	N/A	3.79%	21,354,535	21,354,535	
6/30/2027	582,468,271	N/A	3.61%	21,014,430	21,014,430	
6/30/2028	601,398,490	N/A	3.43%	20,608,441	20,608,441	
6/30/2029	620,943,941	N/A	3.24%	20,109,715	20,109,715	
6/30/2030	641,124,619	N/A	3.05%	19,553,398	19,553,398	
6/30/2031	661,961,169	N/A	2.86%	18,945,006	18,945,006	
6/30/2032	683,474,907	N/A	2.68%	18,302,418	18,302,418	
6/30/2033	705,687,841	N/A	2.50%	17,627,525	17,627,525	
6/30/2034	728,622,696	N/A	2.32%	16,918,422	16,918,422	
6/30/2035	752,302,934	N/A	2.16%	16,215,300	16,215,300	
6/30/2036	776,752,779	N/A	1.99%	15,485,930	15,485,930	
6/30/2037	801,997,244	N/A	1.84%	14,759,096	14,759,096	
6/30/2038	828,062,154	N/A	1.70%	14,044,039	14,044,039	
6/30/2039	854,974,174	N/A	1.56%	13,323,219	13,323,219	

SECTION E

PARTICIPANT DATA

Active Members by Valuation Division

Valuation Group	Active Members	Valuation Payroll	Average Age	Average Service*	Average Pay
Employees:					
Male	9,434	$ 493,232,566	49.0	11.7	$52,282
Female	14,864	634,533,383	49.4	11.1	42,689
Total	24,298	1,127,765,949	49.2	11.3	46,414
Teachers:					
Male	3,845	241,865,270	46.1	14.1	62,904
Female	13,887	808,581,822	46.3	13.3	58,226
Total	17,732	1,050,447,092	46.3	13.5	59,240
Police:					
Male	3,610	246,892,830	39.3	11.3	68,391
Female	564	32,661,896	38.8	8.9	57,911
Total	4,174	279,554,726	39.2	11.0	66,975
Fire:					
Male	1,564	114,355,012	41.3	13.3	73,117
Female	44	2,908,431	41.1	11.6	66,101
Total	1,608	117,263,443	41.3	13.3	72,925
Total:					
Male	18,453	1,096,345,678	45.9	12.3	59,413
Female	29,359	1,478,685,532	47.7	12.1	50,366
Grand Total	47,812	$2,575,031,210	47.0	12.2	$53,857

** One month of service was added to the reported service for all active participants in consideration of potential subsidized service purchases in the future.*

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

Summary of Membership Data by Category

	June 30 2015	June 30 2014
Active Members		
Number	47,812	48,307
Average age (years)	47.0	47.1
Average service* (years)	12.2	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

** For 2015, one month of service was added to the reported service for all active participants in consideration of potential subsidized service purchases in the future.*

SECTION F

METHODS & ASSUMPTIONS

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; and

(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).

The rate-setting valuations project the unfunded actuarial accrued liability to the beginning of the applicable biennium to determine the unfunded amortization rate. We projected the normal cost rates from the first year of the rate setting biennium to better reflect the impact of the changing benefit tiers and generational mortality. We developed projected normal cost rates based on a new entrant profile determined by the current active population with 3-8 years of service.

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.

At the November 12, 2013 Board meeting, the Board elected to incorporate a 20% margin requirement from the end of the first year of the biennium and every year thereafter.

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 this 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, 2017. 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.

Valuation 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, 2010 to June 30, 2015 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 valuations is 7.25% per year, compounded annually (net after investment expenses). ***The investment return rate*** assumed in the medical subsidy valuations is 3.25% per year, compounded annually (net after investment expenses) for purposes of computing accrued liabilities and other disclosures required by GASB Statement No. 43. However, for determining the solvency contribution rate for the medical subsidy account, the investment return rate assumption was 7.25% on the market value of assets.

The ***Wage Inflation Rate*** assumed in this valuation was 3.25% 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 2.50% 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 7.25% 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 – at 4.75%, with a 2.50% price inflation assumption.

The active member population for Employees, Police and Fire is assumed to remain constant. For purposes of financing the unfunded liabilities, total payroll is assumed to grow at the wage inflation rate – 3.25% per year. For Teachers, the active member population is assumed to decline by 0.25% per year. For purposes of financing the unfunded liabilities, total payroll is assumed to grow at the wage inflation rate minus 0.25% – 3.00% per year.

Pay increase assumptions for individual active members are shown for sample ages on the following pages. Part of the assumption for each age is for merit and/or seniority increase, and the other 3.25% recognizes wage inflation, including price inflation, productivity increases, and other macroeconomic forces.

Valuation 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	10.00%	3.25%	13.25%
2	6.00%	3.25%	9.25%
3	2.50%	3.25%	5.75%
4	2.00%	3.25%	5.25%
5	1.50%	3.25%	4.75%
6	1.25%	3.25%	4.50%
7	1.00%	3.25%	4.25%
8	1.00%	3.25%	4.25%
9	1.00%	3.25%	4.25%
10	0.50%	3.25%	3.75%
11	0.50%	3.25%	3.75%
12	0.50%	3.25%	3.75%
13	0.50%	3.25%	3.75%
14	0.50%	3.25%	3.75%
15	0.50%	3.25%	3.75%
16	0.50%	3.25%	3.75%
17	0.50%	3.25%	3.75%
18	0.50%	3.25%	3.75%
19	0.50%	3.25%	3.75%
20	0.50%	3.25%	3.75%
21	0.50%	3.25%	3.75%
22	0.50%	3.25%	3.75%
23	0.50%	3.25%	3.75%
24	0.50%	3.25%	3.75%
25	0.50%	3.25%	3.75%
Ref:	662 - -3.25%		

Valuation 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			1.00%			1.00%
46			1.00%			1.00%
47			1.00%			1.25%
48			1.00%			1.25%
49			1.00%			1.00%
50		0.75%	1.75%		0.75%	2.20%
51		0.75%	2.50%		0.75%	2.50%
52		0.75%	3.10%		0.75%	2.50%
53		0.75%	3.50%		0.75%	3.50%
54		0.75%	3.75%		1.25%	4.00%
55		1.50%	6.00%		1.75%	8.00%
56		2.20%	9.00%		2.75%	6.00%
57		2.20%	11.00%		2.50%	12.00%
58		3.00%	11.50%		3.25%	12.00%
59		4.50%	18.00%		5.00%	13.00%
60	11.00%			11.00%		
61	11.00%			11.00%		
62	16.00%			15.00%		
63	16.00%			14.00%		
64	14.00%			14.00%		
65	16.00%			20.00%		
66	25.00%			22.00%		
67	23.00%			22.00%		
68	21.00%			18.00%		
69	20.00%			19.00%		
70	100.00%			100.00%		
Ref.	2552	2554	2556	2553	2555	2557

Valuation 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

	% of Active Members Retiring Within Next Year			
Retirement	**Male**		**Female**	
Ages	**Normal**	**Early**	**Normal**	**Early**
60		11%		11%
61		11%		11%
62		16%		15%
63		16%		14%
64		14%		14%
65	45%		44%	
66	45%		44%	
67	23%		22%	
68	21%		18%	
69	20%		19%	
70	100%		100%	
Ref.	999	2552	999	2553
	65	60	65	60

Valuation Assumptions

Employees
(Concluded)

Rates of separation from active membership were as shown below (rates do not apply to members eligible for normal retirement 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	23.00%	30.00%
	1	20.00%	22.00%
	2	15.00%	16.00%
	3	12.00%	12.00%
	4	10.00%	8.00%
25	5+	7.20%	7.20%
30		7.20%	7.20%
35		5.04%	5.04%
40		5.04%	5.04%
45		5.04%	5.04%
50		3.96%	3.96%
55		3.60%	3.60%
60		3.60%	3.60%
Ref.		256	256
		1.8	1.8
		59	36

Rates of disability among active members. 60% are assumed to be ordinary disability and 40% are assumed to be accidental disability.

Sample Ages	% of Active Members Becoming Disabled Within Next Year	
	Men	Women
20	0.03%	0.00%
25	0.03%	0.02%
30	0.03%	0.02%
35	0.03%	0.03%
40	0.08%	0.06%
45	0.16%	0.11%
50	0.27%	0.23%
55	0.47%	0.42%
Ref	7	19
	1.40	0.90

Valuation 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	10.00%	3.25%	13.25%
2	6.00%	3.25%	9.25%
3	3.25%	3.25%	6.50%
4	2.75%	3.25%	6.00%
5	2.50%	3.25%	5.75%
6	2.25%	3.25%	5.50%
7	2.00%	3.25%	5.25%
8	1.75%	3.25%	5.00%
9	1.50%	3.25%	4.75%
10	1.25%	3.25%	4.50%
11	1.00%	3.25%	4.25%
12	1.00%	3.25%	4.25%
13	1.00%	3.25%	4.25%
14	1.00%	3.25%	4.25%
15	1.00%	3.25%	4.25%
16	1.00%	3.25%	4.25%
17	1.00%	3.25%	4.25%
18	1.00%	3.25%	4.25%
19	1.00%	3.25%	4.25%
20	1.00%	3.25%	4.25%
21	1.00%	3.25%	4.25%
22	1.00%	3.25%	4.25%
23	1.00%	3.25%	4.25%
24	1.00%	3.25%	4.25%
25	1.00%	3.25%	4.25%
Ref:	663 - -3.25%		

The Teachers' active head count is assumed to decline 0.25% per year. The open group payroll growth assumption is consequently 3.00% per year (3.25% - 0.25%).

Valuation 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			1.00%			1.00%
46			1.00%			1.00%
47			1.00%			1.00%
48			1.00%			1.00%
49			1.00%			1.00%
50		1.00%	1.00%		0.50%	1.00%
51		1.00%	1.00%		0.50%	1.00%
52		1.00%	1.50%		0.50%	1.00%
53		1.00%	2.00%		0.50%	1.00%
54		1.00%	2.00%		1.00%	2.00%
55		1.00%	3.00%		1.50%	5.00%
56		3.50%	7.00%		2.50%	8.00%
57		2.00%	11.00%		3.75%	11.00%
58		8.50%	15.00%		4.50%	14.00%
59		6.00%	19.00%		9.00%	17.00%
60	18.00%			13.00%		
61	19.00%			15.00%		
62	20.00%			19.00%		
63	21.00%			19.00%		
64	22.00%			21.00%		
65	23.00%			25.00%		
66	30.00%			32.00%		
67	25.00%			27.00%		
68	25.00%			27.00%		
69	25.00%			27.00%		
70	100.00%			100.00%		
Ref.	2558	1925	2561	2559	2560	2562

Valuation 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		18%		13%
61		19%		15%
62		20%		19%
63		21%		19%
64		22%		21%
65	58%		56%	
66	58%		56%	
67	25%		27%	
68	25%		27%	
69	25%		27%	
70	100%		100%	
Ref.	999	2558	999	2559
	65	60	65	60

Valuation Assumptions

Teachers
(Concluded)

Rates of separation from active membership were as shown below (rates do not apply to members eligible for normal retirement 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	35.0%	31.0%
	1	17.0%	16.0%
	2	14.0%	13.0%
	3	10.0%	11.0%
	4	8.0%	8.0%
25	5+	4.0%	6.0%
30		4.0%	6.0%
35		2.8%	4.2%
40		2.8%	4.2%
45		2.8%	4.2%
50		2.2%	3.3%
55		2.0%	3.0%
60		2.0%	3.0%
Ref.		256	256
		1.00	1.50
		184	996

Rates of disability among active members. 67% percent are assumed to be ordinary disability and 33% percent are assumed to be accidental disability.

Sample Ages	% of Active Members Becoming Disabled Within Next Year	
	Male	Female
20	0.01%	0.00%
25	0.01%	0.00%
30	0.02%	0.00%
35	0.02%	0.01%
40	0.04%	0.04%
45	0.07%	0.06%
50	0.17%	0.11%
55	0.38%	0.35%
Ref	2	66
	0.25	0.75

Valuation 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	22.00%	3.25%	25.25%
2	15.00%	3.25%	18.25%
3	7.00%	3.25%	10.25%
4	5.00%	3.25%	8.25%
5	3.75%	3.25%	7.00%
6	2.50%	3.25%	5.75%
7	2.00%	3.25%	5.25%
8	1.50%	3.25%	4.75%
9	1.00%	3.25%	4.25%
10	1.00%	3.25%	4.25%
11	1.00%	3.25%	4.25%
12	1.00%	3.25%	4.25%
13	1.00%	3.25%	4.25%
14	1.00%	3.25%	4.25%
15	1.00%	3.25%	4.25%
16	1.00%	3.25%	4.25%
17	1.00%	3.25%	4.25%
18	1.00%	3.25%	4.25%
19	1.00%	3.25%	4.25%
20	1.00%	3.25%	4.25%
21	1.00%	3.25%	4.25%
22	1.00%	3.25%	4.25%
23	1.00%	3.25%	4.25%
24	1.00%	3.25%	4.25%
25	1.00%	3.25%	4.25%
Ref:	665 - -3.25%		

Valuation Assumptions

Police
(Continued)

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

(Applying to Eligible Members)

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	22%					
46	22%	27%				
47	22%	27%	31%			
48	22%	25%	31%	34%		
49	22%	25%	31%	34%	38%	
50	22%	25%	27%	34%	38%	40%
51	22%	22%	27%	31%	38%	40%
52	22%	22%	22%	31%	33%	40%
53	22%	22%	22%	22%	33%	38%
54	22%	22%	22%	22%	22%	38%
55	22%	22%	22%	22%	22%	22%
56	22%	22%	22%	22%	22%	22%
57	22%	22%	22%	22%	22%	22%
58	22%	22%	22%	22%	22%	22%
59	22%	22%	22%	22%	22%	22%
60	22%	22%	22%	22%	22%	22%
61	20%	20%	20%	20%	20%	20%
62	22%	22%	22%	22%	22%	22%
63	22%	22%	22%	22%	22%	22%
64	20%	20%	20%	20%	20%	20%
65	25%	25%	25%	25%	25%	25%
66	50%	50%	50%	50%	50%	50%
67	50%	50%	50%	50%	50%	50%
68	50%	50%	50%	50%	50%	50%
69	50%	50%	50%	50%	50%	50%
70	100%	100%	100%	100%	100%	100%
Ref.	2563 45					

Valuation Assumptions

Police
(Concluded)

Rates of separation from active membership were as shown below (rates 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	25.00%	30.00%
	1	15.00%	20.00%
	2	10.00%	13.00%
	3	7.00%	11.50%
	4	5.00%	10.00%
25	5+	5.88%	5.88%
30		4.93%	4.93%
35		4.13%	4.13%
40		3.45%	3.45%
45		2.83%	2.83%
50		2.40%	2.40%
55		1.98%	1.98%
60		1.60%	1.60%
Ref.		40	40
		0.5	0.5
		16	1008

Rates of disability among active members.

Sample Ages	% of Active Members Becoming Disabled Within Next Year	
	Ordinary	Accidental
20	0.03%	0.03%
25	0.03%	0.03%
30	0.03%	0.03%
35	0.07%	0.07%
40	0.16%	0.16%
45	0.28%	0.28%
50	0.45%	0.45%
55	0.67%	0.67%
Ref	35	35
	0.40	0.40

Valuation 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	22.00%	3.25%	25.25%
2	15.00%	3.25%	18.25%
3	7.00%	3.25%	10.25%
4	5.00%	3.25%	8.25%
5	3.75%	3.25%	7.00%
6	2.50%	3.25%	5.75%
7	2.00%	3.25%	5.25%
8	1.50%	3.25%	4.75%
9	1.00%	3.25%	4.25%
10	1.00%	3.25%	4.25%
11	1.00%	3.25%	4.25%
12	1.00%	3.25%	4.25%
13	1.00%	3.25%	4.25%
14	1.00%	3.25%	4.25%
15	1.00%	3.25%	4.25%
16	1.00%	3.25%	4.25%
17	1.00%	3.25%	4.25%
18	1.00%	3.25%	4.25%
19	1.00%	3.25%	4.25%
20	1.00%	3.25%	4.25%
21	1.00%	3.25%	4.25%
22	1.00%	3.25%	4.25%
23	1.00%	3.25%	4.25%
24	1.00%	3.25%	4.25%
25	1.00%	3.25%	4.25%
Ref:	665 - -3.25%		

Valuation Assumptions

Fire
(Continued)

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

(Applying to Eligible Members)

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	12%					
46	12%	15%				
47	12%	15%	18%			
48	12%	15%	18%	22%		
49	12%	15%	18%	22%	26%	
50	17%	15%	18%	21%	26%	30%
51	17%	17%	18%	21%	26%	30%
52	17%	17%	17%	21%	21%	30%
53	17%	17%	17%	17%	21%	22%
54	17%	17%	17%	17%	17%	22%
55	22%	22%	22%	22%	22%	22%
56	22%	22%	22%	22%	22%	22%
57	22%	22%	22%	22%	22%	22%
58	22%	22%	22%	22%	22%	22%
59	22%	22%	22%	22%	22%	22%
60	28%	28%	28%	28%	28%	28%
61	28%	28%	28%	28%	28%	28%
62	28%	28%	28%	28%	28%	28%
63	28%	28%	28%	28%	28%	28%
64	28%	28%	28%	28%	28%	28%
65	28%	28%	28%	28%	28%	28%
66	28%	28%	28%	28%	28%	28%
67	28%	28%	28%	28%	28%	28%
68	28%	28%	28%	28%	28%	28%
69	28%	28%	28%	28%	28%	28%
70	100%	100%	100%	100%	100%	100%
Ref.	2564 45					

Valuation Assumptions

Fire
(Concluded)

Rates of separation from active membership were as shown below (rates 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	7.75%	7.75%
	1	4.50%	4.50%
	2	3.00%	3.00%
	3	2.75%	2.75%
	4	2.25%	2.25%
25	5 & Over	1.25%	1.25%
30		1.25%	1.25%
35		1.25%	1.25%
40		1.25%	1.25%
45		1.25%	1.25%
50		1.25%	1.25%
55		1.25%	1.25%
60		1.25%	1.25%
Ref.		151 1.25 1007	151 1.25 1007

Rates of disability among active members.

Sample Ages	% of Active Members Becoming Disabled Within Next Year	
	Ordinary	Accidental
20	0.04%	0.04%
25	0.06%	0.06%
30	0.07%	0.07%
35	0.09%	0.09%
40	0.12%	0.12%
45	0.18%	0.18%
50	0.27%	0.27%
55	0.40%	0.40%
Ref	3 0.35	3 0.35

Valuation Assumptions

Healthy Mortality

The standard mortality table for death after retirement is the RP-2014 Healthy Annuitant generational mortality tables for males and females, adjusted for mortality improvements using Scale MP-2015.

Sample Attained Ages	Probability of Dying Next Year*		Future Life Expectancy (years)*	
	Men	Women	Men	Women
35	0.116%	0.107%	50.27	52.86
40	0.172%	0.157%	45.03	47.68
45	0.258%	0.203%	39.89	42.56
50	0.395%	0.269%	34.89	37.52
55	0.568%	0.369%	30.13	32.60
60	0.773%	0.531%	25.57	27.81
65	1.091%	0.808%	21.18	23.18
70	1.686%	1.302%	17.01	18.78
75	2.751%	2.140%	13.17	14.72
80	4.633%	3.620%	9.79	11.09
Ref:	2135 x 1.00	2136 x 1.00		

** Applicable to calendar year 2015. Rates and life expectancy in future years are determined by the MP-2015 projection scale. The rates shown are the base table rates prior to using a scaling factor adjustment for each member classification. The scaling factor adjustments can be found on the next page.*

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

Disabled Mortality

Disabled pension mortality was based on the RP-2014 Disabled Retiree generational mortality tables for males and females, adjusted for mortality improvements using Scale MP-2015. The probabilities of disabled mortality at sample attained ages were as follows:

Sample Ages	Probability of Occurrence Next Year* Disabled Death	
	Men	Women
20	0.042%	0.018%
25	0.183%	0.086%
30	0.457%	0.225%
35	0.819%	0.444%
40	1.203%	0.676%
45	1.582%	0.884%
50	1.983%	1.157%
55	2.313%	1.474%
Ref	2137	2138
	1.00	1.00

** Applicable to calendar year 2015. Rates in future years are determined by the above rates and the MP-2015 projection scale. The rates shown are the base table rates prior to using a scaling factor adjustment for each member classification. The scaling factor adjustments can be found on the next page.*

Valuation Assumptions

Pre-Retirement Mortality

For active members dying before retirement, the mortality tables are based on the RP-2014 Employee generational mortality tables for males and females, adjusted for mortality improvements using Scale MP-2015. 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	0.036%	0.015%
25	0.043%	0.015%
30	0.042%	0.022%
35	0.050%	0.030%
40	0.059%	0.041%
45	0.092%	0.063%
50	0.164%	0.107%
55	0.276%	0.170%
Ref	2133 x 1.00	2134 x 1.00

** Applicable to calendar year 2015. Rates in future years are determined by the above rates and the MP-2015 projection scale. The rates shown are the base table rates prior to using a scaling factor adjustment for each member classification. The scaling factor adjustments are listed below.*

The weighting of ordinary and accidental deaths by member classification is as follows:

	Employees	Teachers	Police	Fire
Ordinary	98%	98%	50%	50%
Accidental	2%	2%	50%	50%

The scaling factors for each member classification apply to all mortality tables and are as follows:

	Employees	Teachers	Police	Fire
Scale-Male	116%	100%	99%	100%
Scale-Female	124%	87%	106%	101%

Miscellaneous and Technical Assumptions

Administrative & Investment Expenses	The investment return assumption is intended to be the return net of investment expenses. Assumed administrative expenses are added to the Normal Cost, and were 0.35% of payroll in the June 30, 2015 valuation.
Benefit Service	Exact Fractional service is used to determine the amount of benefit payable.
COLA	None assumed.
Decrement Operation	Disability and turnover decrements do not operate during normal retirement eligibility for Group I members. They do operate for early retirement for Group I members and during normal retirement for Group II members.
Decrement Timing	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.
Eligibility Testing	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.
Forfeitures	The percent of vested members who quit before retirement who elect to refund and forfeit their pension is assumed to be 25% at first vesting eligibility, grading to 0% at first retirement eligibility.
Incidence of Contributions	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.
Liability Adjustments	Normal, early and vesting retirement liabilities are increased by 7.5%, 5.0%, 11.5% and 11.5% for Employees, Teachers, Police and Fire respectively to account for end of career pay increases. 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.

Marriage Assumption

Group I: 60% of males and 60% of females are assumed to be married for purposes of death-in-service benefits. Group II: 60% of males and 60% 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.

Option Factors

Annuity values and factors are based on a 7.25% interest rate and the RP-2014 Healthy Annuitant mortality tables for males and females, adjusted for improvements using Scale MP-2015. While the tables used in the valuations are based on generational mortality, a static model with five years of projection was used for purposes of determining the option factors.

Unisex mortality was used based on active male/female blends observed in the June 30, 2015 valuation of 39%/61%, 22%/78%, 87%/13% and 97%/3% for Employees, Teachers, Police and Fire, respectively.

Disabled mortality is based on the RP-2014 Disabled Retiree mortality table using a static model with five years of mortality improvement projection.

For the Group I Straight Life factors, the current practice of not reflecting the changing benefit at age 65 is in the factor.

Each option factor is determined on an actuarial equivalent basis.

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.

New Entrant Profile

For purposes of projecting the normal cost to the beginning of the rate setting biennium, the new entrant profile is based on actual members with 3-8 years of service on the valuation date.

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

Service Purchases One month of service was added to the reported service for all active participants in consideration of potential subsidized service purchases in the future.

Split Benefits Active members with service in more than one plan are valued as if all service accrued is in their current plan. Split benefits are valued upon retirement, as reported in the data.

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

The NHRS underwent a thorough review of the medical subsidy data. We used the data as submitted without further audit.

Medical Subsidy Actual medical subsidy recipients are included in the valuation plus 5% of those who opted-out. For those members reported as eligible in the future but not currently receiving, we assumed that members would commence benefits at age eligibility.

The solvency rates for the medical subsidy benefits were determined to provide an estimated margin of 20% of the benefits by the end of the first year of the biennium and thereafter.

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

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.

SECTION G

GLOSSARY

Glossary

Actuarial Accrued Liability (AAL)	The difference between the Actuarial Present Value of Future Benefits, and the Actuarial Present Value of Future Normal Costs.
Actuarial Assumptions	Assumptions about future plan experience that affect costs or liabilities, such as: mortality, withdrawal, disablement, and retirement; future increases in salary; future rates of investment earnings; future investment and administrative expenses; characteristics of members not specified in the data, such as marital status; characteristics of future members; future elections made by members; and other items.
Actuarial Cost Method	A procedure for allocating the Actuarial Present Value of Future Benefits between the Actuarial Present Value of future Normal Costs and the Actuarial Accrued Liability.
Actuarial Equivalent	Of equal Actuarial Present Value, determined as of a given date and based on a given set of Actuarial Assumptions.
Actuarial Present Value (APV)	The amount of funds required to provide a payment or series of payments in the future. It is determined by discounting the future payments with an assumed interest rate and with the assumed probability each payment will be made.
Actuarial Present Value of Future Benefits (APVFB)	The Actuarial Present Value of amounts which are expected to be paid at various future times to active members, retired members, beneficiaries receiving benefits, and inactive, nonretired members entitled to either a refund or a future retirement benefit. Expressed another way, it is the value that would have to be invested on the valuation date so that the amount invested plus investment earnings would provide sufficient assets to pay all projected benefits and expenses when due.
Actuarial Valuation	The determination, as of a valuation date, of the Normal Cost, Actuarial Accrued Liability, Actuarial Value of Assets, and related Actuarial Present Values for a plan.
Actuarial Value of Assets	The value of the assets as of a given date, used by the actuary for valuation purposes. This may be the market or fair value of plan assets or a smoothed value in order to reduce the year-to-year volatility of calculated results, such as the funded ratio and the Annual Required Contribution (ARC).

Glossary

Amortization Method A method for determining the Amortization Payment. The most common methods used are level dollar and level percentage of payroll. Under the Level Dollar method, the Amortization Payment is one of a stream of payments, all equal, whose Actuarial Present Value is equal to the UAAL. Under the Level Percentage of Pay method, the Amortization payment is one of a stream of increasing payments, whose Actuarial Present Value is equal to the UAAL. Under the Level Percentage of Pay method, the stream of payments increases at the rate at which total covered payroll of all active members is assumed to increase.

Amortization Payment That portion of the plan contribution or ARC which is designed to pay interest on and to amortize the Unfunded Actuarial Accrued Liability.

Amortization Period The period used in calculating the Amortization Payment.

Annual Required Contribution (ARC) The employer's periodic required contributions, expressed as a dollar amount or a percentage of covered plan compensation. The ARC consists of the Employer Normal Cost and Amortization Payment.

Closed Amortization Period A specific number of years that is reduced by one each year, and declines to zero with the passage of time. For example if the amortization period is initially set at 30 years, it is 29 years at the end of one year, 28 years at the end of two years, etc.

Employer Normal Cost The portion of the Normal Cost to be paid by the employer. This is equal to the Normal Cost less expected member contributions.

Equivalent Single Amortization Period For plans that do not establish separate amortization bases (separate components of the UAAL), this is the same as the Amortization Period. For plans that do establish separate amortization bases, this is the period over which the UAAL would be amortized if all amortization bases were combined upon the current UAAL payment.

Experience Gain/Loss A measure of the difference between actual experience and that expected based upon a set of Actuarial Assumptions, during the period between two actuarial valuations. To the extent that actual experience differs from that assumed, Unfunded Actuarial Accrued Liabilities emerge which may be larger or smaller than projected. Gains are due to favorable experience, e.g., the assets earn more than projected, salaries do not increase as fast as assumed, members retire later than assumed, etc. Favorable experience means actual results produce actuarial liabilities not as large as projected by the actuarial assumptions. On the other hand, losses are the result of unfavorable experience, i.e., actual results that produce Unfunded Actuarial Accrued Liabilities which are larger than projected.

Glossary

Funded Ratio	The ratio of the Actuarial Value of Assets to the Actuarial Accrued Liability.
GASB	Governmental Accounting Standards Board.
Normal Cost	The annual cost assigned, under the Actuarial Cost Method, to the current plan year.
Open Amortization Period	An open amortization period is one which is used to determine the amortization payment but which does not change over time. In other words, if the initial period is set as 30 years, the same 30-year period is used in determining the amortization period each year. In theory, if an open amortization period is used to amortize the Unfunded Actuarial Accrued Liability, the UAAL will never completely disappear, but will become smaller each year, either as a dollar amount or in relation to covered payroll.
Unfunded Actuarial Accrued Liability	The difference between the Actuarial Accrued Liability and Actuarial Value of Assets.
Solvency Rate	The minimum contribution necessary to prevent insolvency (a fund balance less than $0) during or after the biennium in which contributions are being calculated. If fund balances are projected to be less than $0 prior to the beginning of the biennium (due to the lag between the valuation date and contribution certification), then the solvency rate is the minimum contribution necessary to bring the balance back to $0 by the end of the biennium. After the fund balance reaches $0, the solvency rate is becomes the pay-as-you-go rate.
Valuation Date	The date as of which the Actuarial Present Value of Future Benefits are determined. The benefits expected to be paid in the future are discounted to this date.

SECTION H

FUNDING POLICY

New Hampshire Retirement System
Actuarial Funding Policy
(Adopted: March 11, 2014)

FUNDING OBJECTIVES

The main financial objective of the New Hampshire Retirement System (NHRS) is to receive employer and member contributions to fund the long-term costs of benefits provided by statute to plan members and beneficiaries. From the perspective of the members and beneficiaries, a funding policy based on actuarially determined contributions is one which will pay all benefits provided by statute when due. From the perspective of the contributing plan sponsors and taxpayers, the actuarially determined contributions have the additional objectives of keeping contribution rates relatively stable as a percentage of active member payroll and equitably allocating the costs over the active members' period of active service. For pension funding, the payment of benefits is supported in part by income earned on investment assets. This funding policy meets those criteria. It is stipulated by state law and implemented through the application of Board adopted governance policies.

Statutory Pension Funding Policy for NHRS

The statute that establishes the pension funding policy for NHRS is RSA 100-A:16.

RSA 100-A:16 Excerpts:

> **100-A:16 Method of Financing** – All of the assets of the Retirement System shall be credited, according to the purpose for which they are held, between 2 funds, namely, the member annuity savings fund and the state annuity accumulation fund. Each of the funds shall be subdivided on account of the various member classifications. In making the determinations required under this section for financing the Retirement System, the Board of Trustees shall use the entry age normal funding methodology. The Board of Trustees shall direct the System's actuary to prepare biennial valuations of the System's assets and liabilities commencing with the valuation prepared as of June 30, 2007. Such biennial valuation shall be the basis for determining the annual contribution requirements of the System until the next following biennial valuation.
>
> …
> II(b) The contributions of each employer for benefits under the retirement system on account of group II members shall consist of a percentage of the earnable compensation of its members to be known as the "normal contribution," and an additional amount to be known as the "accrued liability contribution;" provided that beginning with state fiscal year 2013 and for each state fiscal year thereafter, any employer shall pay the full amount of such total contributions. The rate percent of such normal contribution, including contributions on behalf of group II members whose group II creditable service is in excess of 40 years, in each instance shall be fixed on the basis of the liabilities of the system with respect to the particular members of the various member classifications as shown by actuarial valuations,
>
> ...

> II(c) The contributions of each employer for benefits under the retirement system on account of group I members shall consist of a percentage of the earnable compensation of its members to be known as the "normal contribution," and an additional amount to be known as the "accrued liability contribution;" provided that beginning with state fiscal year 2013 and for each state fiscal year thereafter, any employer shall pay both normal and accrued liability contributions. The rate percent of such normal contribution in each instance shall be fixed on the basis of the liabilities of the system with respect to the particular members of the various member classifications as shown by actuarial valuation,
>
> ...
>
> II(e) Immediately following the actuarial valuation prepared as of June 30 of each fiscal year, the Board shall have an actuary determine the amount of the unfunded accrued liability for each member classification as the amount of the total liabilities of the state annuity accumulation fund on account of such classification which is not dischargeable by the total of the funds in hand to the credit of the state annuity accumulation fund on account of such classification, and the aforesaid normal contributions to be made on account of the members in such classification during the remainder of their active service. The amount so determined with respect to each member classification shall be known as the "unfunded accrued liability" with respect to such classification. On the basis of each such unfunded accrued liability, the board shall have an actuary determine the level annual contribution required to discharge such amount over a period of 30 years or the maximum period allowed by standards adopted by the Government Accounting Standards Board, whichever is less.

Board Established Policy Associated with Funding:

Actuarial Cost Method

The law stipulates under RSA 100-A:16 the use of the entry age normal actuarial cost method for each of the four member classifications. The purpose of this method is to determine the annual Normal Cost for each individual active member, payable from the date of employment to the date of retirement, that is:

(i) Sufficient to accumulate to the value of the member's benefit at the time of retirement, and
(ii) A constant percentage of the member's year by year projected covered pay.

The Actuarial Accrued Liability under this cost method is the accumulation of normal costs accrued prior to the actuarial valuation date. The Actuarial Accrued Liability represents the theoretical amount of assets required to fund benefits earned on members' past service. The Normal Cost represents the cost required to fund benefits accruing during the current year.

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Under RSA 100-A:16, II (i), if the actuarially determined normal contribution rate as set forth in subparagraphs (b) and (c) on account of any of the various member classifications shall be negative in any fiscal year, then the excess amount resulting from the difference between zero and the negative actuarially determined normal contribution rate shall be used to reduce the member contribution rate for that member classification in that fiscal year.

Under RSA 100-A:16, II-a. (a) if within a member classification the employer rates have lowered to require them to be equal to the member rates, then for all subsequent years the employer rates and the members rates for such member classification shall continue to be equal whether the system liabilities increase or decrease.

Asset Valuation Method

The Actuarial Value of Assets is based on the market value with investment gains and losses smoothed over 5 years. The Actuarial Value of Assets will not consistently be above or below the Market Value and is expected to converge to the Market Value in a relatively short period of time. At any time it may be either greater or less than Market Value. 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. If assumed rates are exactly realized for 4 consecutive years, the Actuarial Value will become equal to Market Value.

Actuarial Value is limited to a 20% corridor around the Market Value. This means that if the preliminary development of the Actuarial Value results in an amount that is greater than 120% of the Market Value (or less than 80% of the Market Value), the final Actuarial Value is limited to 120% (or 80%) of the Market Value. Any gains or losses on the Market Value outside of the 20% corridor are therefore recognized immediately.

Amortization Method

The law stipulates under RSA 100-A:16 an amortization period of 30 years or the maximum period allowed by standards adopted by the Government Accounting Standards Board (GASB), whichever is less. When this statute was enacted, the GASB accounting standards provided broad guidelines on plan funding. The GASB Statements Nos. 67 and 68 do not address plan funding and only address financial reporting. This Actuarial Funding Policy retains the original intent of the statute.

Beginning with the June 30, 2007 actuarial valuation which determined the employer contribution rates beginning with the fiscal year ending June 30, 2010, the 30-year period is a closed period ending June 30, 2039.

The amortization method is a level percentage of payroll, consistent with RSA 100-A:16 II (b) and (c).

Funding Target

The funding objective is to achieve 100% funding. For this purpose, 100% funding means that the Actuarial Value of Assets equals the Actuarial Accrued Liability. The amortization objective is to reach 100% funding by June 30, 2039.

Risk Management

The main financial objective of this funding policy is to fund the long-term costs of benefits provided by statute to plan members and beneficiaries. There are numerous risks that NHRS faces in trying to achieve this objective including funding risk, demographic risk, investment risk, and benefit risk. The Board policies for managing these risks are outlined in this section.

Funding Risk

Frequency of Actuarial Valuations

Regular valuations manage funding risk by allowing employer contribution rates to reflect actual experience as it emerges. Funding valuations are required by RSA 100-A:16, III, as of June 30 every other year on the odd years to determine employer contribution rates for the biennium beginning two years after the valuation date.

Interim funding valuations on June 30 of the even years are required for financial reporting. Funding calculations from interim valuations may be used as additional information for budgeting contributions in anticipation of the next rate setting valuation.

Demographic and Investment Risk

Process for Reviewing and Updating Actuarial Assumptions

The Board adopts actuarial assumptions based on recommendations of the actuary. Demographic and investment risks may be managed in part by having regular reviews of the actuarial assumptions. The law stipulates that the Board shall have the actuary make an actuarial investigation into the experience of the System at least every 5 years (RSA 100-A:14, IX) and shall adopt actuarial assumptions as necessary. If circumstances warrant, the Board may change assumptions more frequently based on the recommendation of the actuary.

The experience study report shall include, but not necessarily be limited to analysis of and recommendations regarding the following assumptions.

i. Pre-retirement withdrawal rates
ii. Retirement rates
iii. Disability rates
iv. Pay increase rates
v. Mortality rates both before and after retirement
vi. Investment returns considering both real return and inflation, which must be consistent with the investment policy

The actuary shall assume no change in the active member population unless there is compelling evidence to support the expectation of a significant increase or decrease in the workforce covered by the System.

The experience study report will serve as the basis for determinations by the Board regarding whether or not demographic or economic assumptions should be modified for future valuations.

In the interim years, the actuary shall issue a written opinion in regard to the reasonableness of the assumed rate of return that shall address any difference between the assumed rate of return and the expected rate of return as determined by the investment committee (RSA 100-A:15, VII. (c)(1)).

Responding to Favorable/Unfavorable Investment Experience

Investment risk is addressed in the System's Investment Manual. Annual investment experience other than assumed is reflected in the valuation asset method described above.

Asset Liability Studies

The Board adopts an asset allocation based on recommendations from the Independent Investment Committee (IIC), which relies upon the advice from the Director of Investments and the Investment Consultant to formulate its recommendations to the Board. The asset allocation approved by the Board will reflect the results of an Asset Liability Study performed at least once in every five-year period, or more often, as recommended by the IIC, System staff, and Investment Consultant.

Risk Measures

In order to quantify the risks outlined in this actuarial funding policy, the following metrics will be included in annual valuation reports. These metrics provide quantifiable measurements of risk and its movement over time:

i. Funded ratio (Actuarial Value of Assets divided by Actuarial Accrued Liability).
   - Measures progress towards the funding objective of the 100% target funded ratio.

ii. Actual Total Payroll versus expected Total Payroll for each member classification.
   - Measures the funding risk associated with receiving contributions as a level percent of payroll.

iii. Dollar standard deviation of investment return divided by Total Payroll
   - Measures the risk associated with negative asset returns relative impact on the funded status of the plan. A decrease in this measure indicates a decrease in investment risk.

iv. Total Unfunded Actuarial Accrued Liability (UAAL) divided by Total Payroll
   - Measures the risk associated with contribution decreases relative impact on the ability to fund the UAAL. A decrease in this measure indicates a decrease in contribution risk.

v. Total Actuarial Accrued Liability (AAL) divided by Total Payroll
   - Measures the risk associated with the ability to respond to liability experience through adjustments in contributions. A decrease in this measure indicates a decrease in experience risk. This also provides a long-term measure of the asset risk in situations where the System has a funded ratio below 100%.

vi. Total Actuarial Value of Assets divided by Total Payroll
   - Measures the risk associated with the ability to respond to asset experience through adjustments in contributions. A decrease in this measure indicates a decrease in asset risk.

Benefit Risk

Responding to Legislative Proposals and Changes

Benefit risk may be managed as follows:

1. The NHRS shall review legislative proposals and changes for the potential legal, administrative, IRC compliance, and funding impact on the System. If a legislative proposal has the potential for a meaningful impact on plan funding, the Board shall consult with the actuary to estimate the actuarial impact to the System.

2. Under RSA 100-A:15 VII (d), the NHRS may request or recommend legislative proposals to comply with other state or federal regulations, improve administration, or secure funding for benefits provided by statute.

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The NHRS does not determine benefit eligibility or the level of benefits.

Statutory Medical Subsidy Funding Policy for NHRS

The statutes that establish the medical subsidy funding policy for NHRS are RSA 100-A:53, 53-b, 53-c, and 53-d.

RSA 100-A:53, 53-b, 53-c, and 53-d Excerpts:

Medical Subsidy Funding Policy

Medical Subsidy benefits provided through NHRS are funded on a pay-as-you-go basis. The medical subsidy benefits provided by statute are fixed amounts for a declining population and therefore pay-as-you-go is a reasonable funding method.

The four sections of the statute refer to four separate member classifications for funding Medical Subsidy benefits provided through the NHRS. These member classifications differ from the pension member classifications and are RSA 100-A:53, Group II; 100-A:53-b, Group I Teachers; 100-A:53-c, Group I Political Subdivision Employees; 100-A:53-d, Group I State Employees.

The comparable funding provisions of the four sections of the statute are as follows:

The benefits provided under RSA 100-A:52, 52-a, and 52-b shall be provided by a 401(h) subtrust of the New Hampshire Retirement System. Beginning July 1, 2009, the 401(h) subtrust shall be funded by allocating to the subtrust the lesser of:

(a) 25 percent of member classification employer contributions; or

(b) The percentage of employer contributions made for the member classification determined by the actuary to be the minimum rate necessary to maintain the benefits provided under RSA 100-A:52, 52-a, and 52-b.

All contributions made to the Retirement System to provide medical benefits under RSA 100-A:52, 52-a, and 52-b shall be maintained in a separate account, the 401(h) subtrust. All funds and accumulated interest shall not be used for or diverted to any purpose other than to provide said medical benefits. Similarly, none of the funds accumulated to provide the retirement benefits set forth in this chapter, may be used or diverted to provide medical benefits under RSA 100-A:52, 52-a, and 52-b. The funds, if any, providing medical benefits under RSA 100-A:52, 52-a, and 52-b may be invested pursuant to the provisions of RSA 100-A:15.

Board Established Policy Associated with Funding:

The law stipulates under RSA 100-A:53, 53-b, 53-c, and 53-d the minimum rate necessary to maintain benefits. For purposes of this determination, the contribution rate calculations are made with respect to the market value of assets for each member classification separately. Any shortfall in assets for a member classification is to be made up through funding in the nearest rate setting biennium.

Risk Management

There are fewer risks in a pay-as-you-go medical subsidy arrangement than for pension pre-funding.

Solvency Risk

The greatest risk facing the pay-as-you-go financing of the statutory medical subsidy benefits is maintaining solvency of the four IRC Section 401(h) subtrusts. The contribution rate setting based on the June 30th valuation in the odd years determines the rates for the biennium beginning two years after the valuation and ending four years after the valuation date.

In order to mitigate the financing risk, the Board has adopted a policy of determining the employer contribution rate such that the expected assets in each of the four subtrusts will exceed the expected benefit payments for the year by at least 20% each year. This is referred to as a 20% margin. The Board may review the sufficiency of the margin and make changes based upon the recommendation of the actuary.

Risk Measures

In order to quantify the risks outlined in this actuarial funding policy, the following metrics will be included in annual valuation reports. These metrics provide quantifiable measurements of risk and its movement over time:

i. 20-year projections of contributions and benefit payments.
   - Measures progress towards the funding objective of solvency with a 20% margin.

ii. Actual Total Payroll versus expected Total Payroll for each member classification.
   - Measures the funding risk associated with receiving contributions as a level percent of payroll.

Miscellaneous Matters Associated with Funding:

Overall Conformance with Professional Standards of Practice

By law, the actuary shall be a member of the American Academy of Actuaries and have at least 7 years of actuarial experience (RSA 100-A:1, XXIX). The work of the actuary in connection with this policy shall conform to Actuarial Standards of Practice for public employee retirement plans promulgated by the Actuarial Standards Board and shall satisfy the requirements of the Governmental Accounting Standards Board with respect to the development of information needed by the system and by employers for financial reporting purposes.