

#### NEW HAMPSHIRE RETIREMENT SYSTEM

ACTUARIAL VALUATION REPORT - FINAL AS OF JUNE 30, 2012



December 21, 2012

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

Re: New Hampshire Retirement System Actuarial Valuation as of June 30, 2012

**Dear Board Members:** 

The results of the June 30, 2012 Annual Actuarial Valuation of the New Hampshire Retirement System (NHRS) are presented in this report. The purposes of this valuation were:

- to measure the System's funding progress;
- to estimate the employer contribution rate for Fiscal Years 2016 and 2017 (final employer rate will be computed in the June 30, 2013 actuarial valuation);
- to determine actuarial information for reporting purposes in compliance with Governmental Accounting Standards Statements No. 25 and No. 43 for the 2012 fiscal year.

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 purpose described.

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

The valuation results summarized in this report involve actuarial calculations that require assumptions about future events. We believe that the assumptions and methods used in this report are reasonable and appropriate for the purpose 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.

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.

Board of Trustees December 21, 2012 Page 2

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, 2012. 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.

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

Respectfully submitted,

David Transch

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# **SECTION A**INTRODUCTION

## Highlights of June 30, 2012 Actuarial Valuation

#### Estimate of Employer Contribution Rates for the 2016/17 Biennium

Estimated Employer	Contri	bution	Rates	as a Percent	of Payroll
			_		

	State Members					
	Employees	Teachers	Police	Fire	NHRS Total	
	Employees	reactions	1 once		1000	
Pension	11.18%		22.81%	25.83%	13.73%	
Medical Subsidy	1.63%		3.88%	3.88%	1.81%	
Total	12.81%		26.69%	29.71%	15.54%	

#### Estimated Employer Contribution Rates as a Percent of Payroll

	Political Subdivision Members					
					NHRS	
	<b>Employees</b>	Teachers	Police	Fire	Total	
Pension	11.18%	12.76%	22.81%	25.83%	13.73%	
Medical Subsidy	0.36%	1.96%	3.88%	3.88%	1.81%	
Total	11.54%	14.72%	26.69%	29.71%	15.54%	

The Funded Ratio is 56.1%.

#### Changes to the System included in the June 30, 2012 Actuarial Valuation:

- 1) Overall, plan experience was unfavorable. The rate of return for the year ending June 30, 2012 was 0.33% on the market value of assets and 3.22% for the actuarial value of assets, both below the assumed rate of return of 7.75% resulting in a recognized loss of \$260 million (pension and medical subsidy combined). Total covered payroll decreased by 1.19% versus the assumed increase of 3.75%. The decrease in payroll results in pension liability gains but an increase in contribution rates for both pension and medical subsidy. Experience increased the total NHRS employer contribution rate by 0.80% of payroll (pension and medical subsidy combined) and decreased the pension funded ratio by 1.3%.
- 2) There were changes in plan provisions since the prior valuation most of which were technical corrections to existing provisions. The impact of these changes was de minimus and therefore not reflected in the valuation.

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

# Executive Summary Pension

Covered Group	<b>Employees</b>	Teachers	Police	Fire	Total
I. Number of Participants as of June 30, 2012					
a. Actives	24,747	18,161	4,118	1,599	48,625
b. Retirees, Disabilities, and Beneficiaries	14,141	9,956	2,981	1,376	28,454
c. Vested Terminations	721	588	54	9	1,372
d. Total	39,609	28,705	7,153	2,984	78,451
e. Total Covered Annual Payroll	\$1,076,831,374	\$1,036,604,873	\$ 261,864,916	\$ 112,456,274	\$ 2,487,757,437
II. Long Range Pension Cost					
a. Actuarial Present Value of Projected Benefits	\$4,189,784,907	\$4,751,996,642	\$2,252,734,785	\$1,106,839,194	\$12,301,355,528
b. Actuarial Present Value of Future Normal Costs	740,397,433	701,912,234	316,941,691	180,503,719	1,939,755,077
c. Actuarial Accrued Liability (AAL): a. – b.	3,449,387,474	4,050,084,408	1,935,793,094	926,335,475	10,361,600,451
d. Valuation Assets	1,877,394,780	2,173,314,598	1,189,308,074	577,864,136	5,817,881,588
e. Unfunded Actuarial Accrued Liability (UAAL): c	d. 1,571,992,694	1,876,769,810	746,485,020	348,471,339	4,543,718,863
f. Funded Status	54.4%	53.7%	61.4%	62.4%	56.1%



# Executive Summary (Continued) Medical Subsidy

	State	Political Subdivision		Police and	Grand
Covered Group	Employees	Employees	Teachers	Fire	Total
I. Number of Participants Covered by					
Post Retirement Medical Subsidy as of June 30, 2012					
a. Actives	-	_	-	5,717	5,717
b. Retirees, Disabilities, and Beneficiaries	2,051	1,403	4,441	2,566	10,461
c. Vested Terminations		-	-	-	-
d. Total	2,051	1,403	4,441	8,283	16,178
e. Total NHRS Covered Annual Payroll	\$ 491,960,120	\$ 584,871,254	\$ 1,036,604,873	\$ 374,321,190	\$ 2,487,757,437
II. Long Range Post-Retirement Medical Subsidy Cost					
a. Actuarial Present Value of Projected Benefits	\$ 88,414,544	\$ 73,253,911	\$ 254,849,708	\$ 354,950,980	\$ 771,469,143
b. Actuarial Present Value of Future Normal Costs		-	-	18,710,117	18,710,117
c. Actuarial Accrued Liability (AAL): a. – b.	88,414,544	73,253,911	254,849,708	336,240,863	752,759,026
d. Valuation Assets	(916,697)	25,518,505	(9,097,721)	8,812,923	24,317,010
e. Unfunded Actuarial Accrued Liability (UAAL): c d.	89,331,241	47,735,406	263,947,429	327,427,940	728,442,016
f. Funded Status	(1.0%)	34.8%	(3.6%)	2.6%	3.2%



# Executive Summary (Continued) Pension State Members

Covered Group	Employees	Teachers	Police	Fire	Total
Current Cost					
Total Normal Cost (% of Covered Payroll)	9.47%		17.26%	19.02%	10.51%
UAAL Contribution (% of Payroll)	8.71%		17.10%	18.61%	10.92%
Total Pension Contribution (% of Payroll)	18.18%		34.36%	37.63%	21.43%
Fiscal Year 2016					
Member Contributions (% of Payroll)	7.00%		11.55%	11.80%	7.70%
Employer Pension Contribution (% of Payroll)	11.18%		22.81%	25.83%	13.73%
Employer Health Contribution (% of Payroll)	1.63%		3.88%	3.88%	1.81%
<b>Total Contributions for Fiscal Year 2016</b>					
1. Percent of Payroll	12.81%	N/A	26.69%	29.71%	15.54%
2. Estimated Dollar Amount	\$ 73,018,255	N/A	\$ 20,996,339	\$ 1,332,646	\$ 95,347,240
Fiscal Year 2017					
Member Contributions (% of Payroll)	7.00%		11.55%	11.80%	7.70%
Employer Pension Contribution (% of Payroll)	11.18%		22.81%	25.83%	13.73%
Employer Health Contribution (% of Payroll)	1.63%		3.88%	3.88%	1.81%
<b>Total Contributions for Fiscal Year 2017</b>					
1. Percent of Payroll	12.81%	N/A	26.69%	29.71%	15.54%
2. Estimated Dollar Amount	\$ 75,756,440	N/A	\$ 21,783,702	\$ 1,382,620	\$ 98,922,761



# Executive Summary (Continued)

#### Political Subdivision Members

Covered Group	<b>Employees</b>	Teachers	Police	Fire	Total
Current Cost					_
Total Normal Cost (% of Covered Payroll)	9.47%	8.95%	17.26%	19.02%	10.51%
UAAL Contribution (% of Payroll)	8.71%	10.81%	17.10%	18.61%	10.92%
Total Pension Contribution (% of Payroll)	18.18%	19.76%	34.36%	37.63%	21.43%
Fiscal Year 2016					
Member Contributions (% of Payroll)	7.00%	7.00%	11.55%	11.80%	7.70%
Employer Pension Contribution (% of Payroll)	11.18%	12.76%	22.81%	25.83%	13.73%
Employer Health Contribution (% of Payroll)	0.36%	1.96%	3.88%	3.88%	1.81%
<b>Total Contributions for Fiscal Year</b>					
1. Percent of Payroll	11.54%	14.72%	26.69%	29.71%	15.54%
2. Estimated Dollar Amount	\$ 78,202,116	\$ 176,796,424	\$ 59,983,762	\$ 37,378,744	\$ 352,361,046
Fiscal Year 2017					
Member Contributions (% of Payroll)	7.00%	7.00%	11.55%	11.80%	7.70%
Employer Pension Contribution (% of Payroll)	11.18%	12.76%	22.81%	25.83%	13.73%
Employer Health Contribution (% of Payroll)	0.36%	1.96%	3.88%	3.88%	1.81%
<b>Total Contributions for Fiscal Year</b>					
1. Percent of Payroll	11.54%	14.72%	26.69%	29.71%	15.54%
2. Estimated Dollar Amount	\$ 81,134,695	\$ 183,426,290	\$ 62,233,153	\$ 38,780,447	\$ 365,574,585

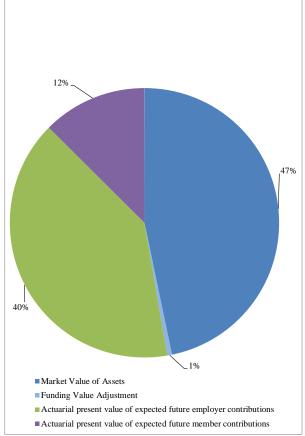
#### **Total NHRS Members**

Covered Group	<b>Employees</b>	Teachers	Police	Fire	Total
Current Cost					
Fiscal Year 2016					
Estimated Dollar Amount	\$ 151,220,371	\$ 176,796,424	\$ 80,980,101	\$ 38,711,390	\$ 447,708,286
Fiscal Year 2017					
Estimated Dollar Amount	\$ 156,891,135	\$ 183,426,290	\$ 84,016,855	\$ 40,163,067	\$ 464,497,346



#### Sources of Funds



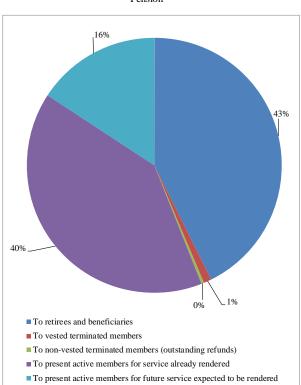


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Medical Subsidy

#### Uses of Funds

#### Pension

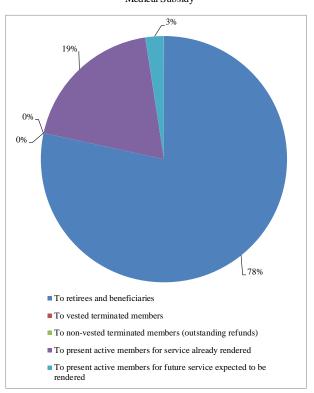


#### Medical Subsidy

Actuarial present value of expected future employer contributions

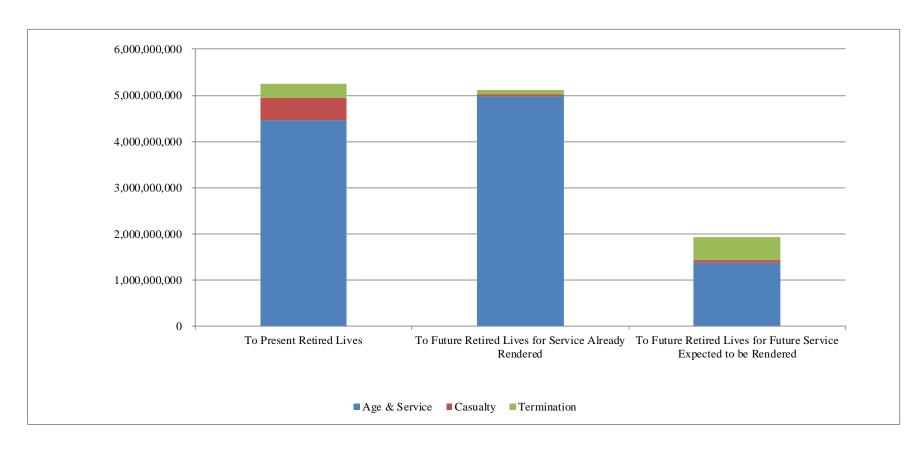
■ Market Value of Assets

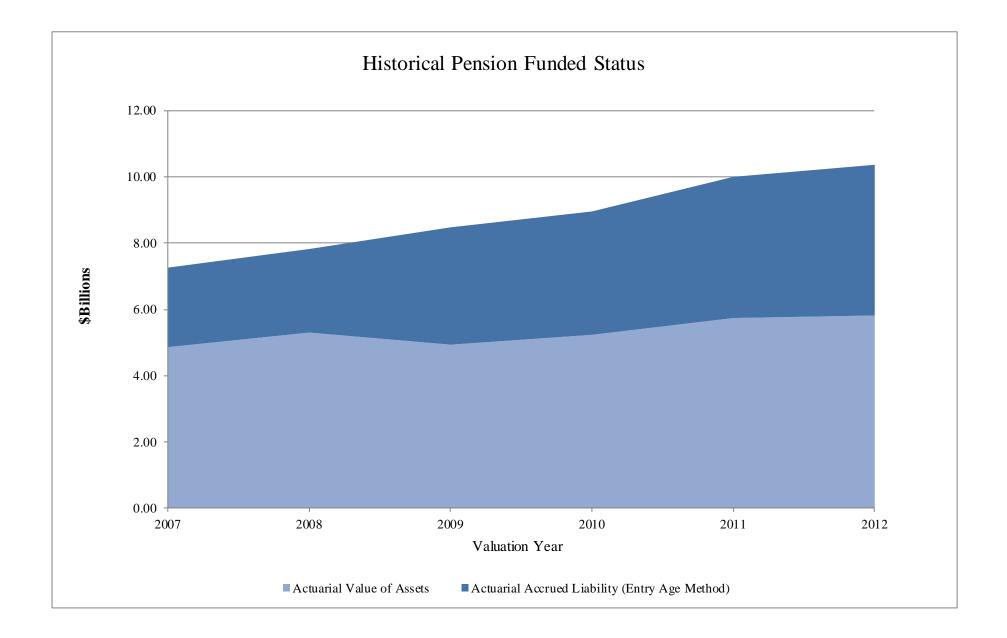
Funding Value Adjustment





#### Comparison of Pension Liabilities by Type





#### **Results of the Valuation**

#### **Actuarial Valuation**

This is the actuarial valuation of the New Hampshire Retirement System, prepared as of June 30, 2012. Valuations for certifying contribution rates are prepared biennially, as of June 30 on the odd numbered years (2009, 2011, etc.). The June 30, 2012 is an interim valuation that estimates the contribution rate for Fiscal Years 2016 and 2017. Ultimately, the June 30, 2013 actuarial valuation will establish the FY 2016 and FY 2017 contribution rates.

The primary purposes of the valuation report are to measure the plan's liabilities, to estimate the required employer contribution rate in accordance with actuarial standards and the New Hampshire State Statute, and to analyze changes in NHRS' actuarial position.

In addition, the report provides information in connection with Governmental Accounting Standards Board Statements No. 25 and No. 43 (GASB No. 25 and GASB No. 43), and it provides summaries of the member data, financial data, plan provisions, and actuarial assumptions and methods.

#### **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 24 years for FY 2016 and 23 years for FY 2017.

We have estimated the pension contribution rates that will satisfy the statute based on the June 30, 2012 valuation to be:

	Estimated Employer Contribution Rates - Pension						
					NHRS		
	<b>Employees</b>	Teachers	Police	Fire	Total		
2016-17 Biennium	11.18%	12.76%	22.81%	25.83%	13.73%		

In order for the statute to be satisfied, this entire rate must be contributed to the pension fund. The New Hampshire Statute also requires that employers contribute the lesser of the "solvency rate" or 25% of total employer contributions to the 401(h) account for the medical subsidy. IRS Regulations require the 401(h) contributions to be no more than 25% of total contributions other than contributions to fund past service credits. This is equivalent to the lesser of the "solvency rate," 33-1/3% of employer pension contributions or 33 1/3% of pension total normal cost contributions.



There are four separate 401(h) plans: 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.

**Estimated Employer Contribution Rates as a Percent of Payroll** 

	Employees	Teachers	Police	Fire	NHRS Total
	11.18%		22.81%	25.83%	13.73%
Subsidy	1.63%		3.88%	3.88%	1.81%
	12.81%		26.69%	29.71%	15.54%

Pension Medical Subsidy Total

	Estimated Employer Contribution Rates as a Percent of Payroll							
		Political Subdivision Members						
					NHRS			
	<b>Employees</b>	<b>Teachers</b>	Police	Fire	Total			
Pension	11.18%	12.76%	22.81%	25.83%	13.73%			
Medical Subsidy	0.36%	1.96%	3.88%	3.88%	1.81%			
Total	11.54%	14.72%	26.69%	29.71%	15.54%			

The 401(h) account balance for Teachers and State Employees is \$0 as of June 30, 2012. 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. It is imperative that NHRS monitor collections closely to ensure the necessary funds are collected to provide the benefit.

The Political Subdivision Employees' 401(h) account is projected to reach pay-as-you-go status in the fiscal year ending June 30, 2028. In the prior valuation depletion was projected to occur in the year ending June 30, 2026.

The Police/Fire 401(h) account is projected to reach pay-as-you-go status in the fiscal year ending June 30, 2023. In the prior valuation depletion was projected to occur in the year ending June 30, 2021.



#### **History of Contribution Rates**

#### Pension

		Employ	er Contributio	n 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%
2014-15#	10.44%	11.96%	21.35%	23.79%	12.79%
2016-17	11.18%	12.76%	22.81%	25.83%	13.73%

		Employe	er Dollars (\$M	(Iillions	
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	\$94.7	\$96.7	\$43.4	\$22.1	\$256.9
2014	\$121.0	\$133.5	\$60.2	\$28.8	\$343.4
2015	\$125.5	\$138.5	\$62.4	\$29.9	\$356.3
2016	\$139.5	\$153.3	\$69.2	\$33.7	\$395.7
2017	\$144.7	\$159.0	\$71.8	\$34.9	\$410.4

#### **Medical Subsidy**

_		Employ	er Contributi	on Rates	
	State	<b>Employees</b>			
Fiscal Year Ending	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	1.63%	0.36%	1.96%	3.88%	1.81%

		Employe	r Dollars (\$1	Millions)*	
	State	Employees			
Fiscal Year Ending	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	\$49.0
2013	\$8.2	\$1.9	\$24.8	\$15.4	\$50.4
2014	\$8.6	\$2.1	\$24.5	\$15.9	\$51.1
2015	\$8.9	\$2.2	\$25.5	\$16.5	\$53.0
2016	\$9.3	\$2.4	\$23.5	\$16.8	\$52.1
2017	\$9.6	\$2.5	\$24.4	\$17.5	\$54.1

#### **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%	7.70%			

	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	\$78.2	\$78.1	\$32.6	\$14.3	\$203.2			
2014	\$81.1	\$78.1	\$32.6	\$14.3	\$206.1			
2015	\$84.2	\$81.0	\$33.8	\$14.8	\$213.8			
2016	\$87.3	\$84.1	\$35.0	\$15.4	\$221.8			
2017	\$90.6	\$87.2	\$36.4	\$16.0	\$230.1			

<sup>\*</sup> Dollar amounts for 2013 and beyond are estimated.

<sup>#</sup> State employer pension contribution rates are 10.52%, 11.96%, 21.47% and 23.91% for Employees, Teachers, Police and Fire, respectively.



#### **Special Contribution Requirement**

There are two political subdivisions that are completing an initial buy-in to NHRS. Their remaining buy-in contributions are as follows:

		UAAL as									Fiscal Year of
Fund	Agency	of 6/30/2012	2012/2013 Contribution	UAAL as of 6/30/2013	2013/2014 Contribution	UAAL as of 6/30/2014	2014/2015 Contribution	UAAL as of 6/30/2015	2015/2016 Contribution	UAAL as of 6/30/2016	Final Payment
	8 7										
Employees	Town of Raymond	\$ 12,597	\$ 2,667	\$ 11,001	\$ 2,362	\$ 9,492	\$ 2,362	\$ 7,866	\$ 2,362	\$ 6,114	2019
	Brookline Public Library	2,697	1,483	1,317	1,317	-	0	0	0	0	2014
	Total	\$ 15,294	\$ 4,150	\$ 12,318	\$ 3,679	\$ 9,492	\$ 2,362	\$ 7,866	\$ 2,362	\$ 6,114	

Contributions are assumed to occur at the end of the fiscal year for the Town of Raymond and the beginning of the fiscal year for Brookline Public Library. Amounts after June 30, 2013 are re-amortized under new assumptions.

#### **Funded Status**

As of the valuation date, the Unfunded Actuarial Accrued Liability (UAAL) is \$4,543.7 million (pension only), and the funded ratio (the ratio of the Actuarial Value of Assets to the Actuarial Accrued Liability) is 56.1% (pension only). This valuation was prepared using the Entry-Age Actuarial Cost Method. For comparison, the funded ratio as of June 30, 2011 was 57.4% (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 significantly 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 continue to grow at 3.75% per year. Please see Comment 3 on page 16 for further discussion.

#### **Actuarial Value of Assets**

The Actuarial Value of Assets of the System is greater than the Market Value of Assets by \$72 million as of the valuation date (see page 39). This difference will be gradually recognized over the next four years in the absence of future gains/losses.

Our estimate of the rate of return on the market value of assets was 0.33% for the year ending June 30, 2012. (Note: This measure may differ from investment manager calculations and should not be used as a measure of investment performance.) The recognized rate of return on the actuarial value of assets was 3.22% for the year ending June 30, 2012 resulting in recognition of a loss.

The Special Account was repealed and transferred into the main pension assets. As directed by NHRS, no reserve has been withheld from the main pension assets as of June 30, 2012.

The total market value as of June 30, 2012 is \$5.77 billion. The actuarial value of assets as of June 30, 2012 is \$5.85 billion.

Please see Section C for additional asset information.



#### Summary of Changes from June 30, 2011 to June 30, 2012

			Pension		
	Employees	Teachers	Police	Fire	Total
Reconciliation of UAAL					
Expected	\$ 0.0	\$ 0.0	\$ 0.0	\$ 0.0	\$4,402.8
Impact of (Gain)Loss	0.0	0.0	0.0	0.0	140.9
Impact of Assumption Change	0.0	0.0	0.0	0.0	N/A
Impact of Plan Change	0.0	0.0	0.0	0.0	N/A
Total	\$1,572.0	\$1,876.8	\$746.5	\$348.5	\$4,543.7
Funded %					ļ
Prior Valuation	54.7 %	55.1 %	63.4 %	65.5 %	57.4 %
Impact of Gain(Loss)	(0.3)%	(1.4)%	(2.0)%	(3.1)%	(1.3)%
Impact of Assumption Change	0.0%	0.0%	0.0%	0.0%	0.0%
Impact of Plan Change	0.0%	0.0%	0.0%	0.0%	0.0%
Total	54.4 %	53.7 %	61.4 %	62.4 %	56.1 %
Reconciliation of Employer					
Contribution Rate					
State Employees					
Prior Valuation	10.51 %		21.45 %	23.90 %	12.83 %
Impact of (Gain)Loss	0.67 %		1.36 %	1.93 %	0.90 %
Impact of Assumption Change	0.00 %		0.00 %	0.00 %	0.00 %
Impact of Plan Change	0.00 %		0.00 %	0.00 %	0.00 %
Total	11.18 %		22.81 %	25.83 %	13.73 %
Political Subdivision Employees					
Prior Valuation	10.44 %	11.96 %	21.35 %	23.79 %	12.78 %
Impact of (Gain)Loss	0.74 %	0.80 %	1.46 %	2.04 %	0.95 %
Impact of Assumption Change	0.00 %	0.00 %	0.00 %	0.00 %	0.00 %
Impact of Plan Change	0.00 %	0.00 %	0.00 %	0.00 %	0.00 %
Total	11.18 %	12.76 %	22.81 %	25.83 %	13.73 %

		Medical Subsidy								
		Political								
	State	Subdivision								
	Employees	Employees	Teachers	Police & Fire	Total					
Reconciliation of UAAL										
Expected	\$ 0.0	\$ 0.0	\$ 0.0	\$ 0.0	\$754.5					
Impact of (Gain)Loss	0.0	0.0	0.0	0.0	(26.1)					
Impact of Assumption Change	0.0	0.0	0.0	0.0	0.0					
Impact of Plan Change	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	0.0	<u>0.0</u>					
Total	\$89.3	\$47.7	\$263.9	\$327.4	\$728.4					
Reconciliation of Employer										
Contribution Rate										
Prior Valuation	1.62 %	0.33 %	2.20 %	3.95 %	1.90 %					
Impact of (Gain)Loss	0.01 %	0.03 %	(0.24)%	(0.07)%	(0.09)%					
Impact of Assumption Change	0.00 %	0.00 %	0.00 %	0.00 %	0.00 %					
Impact of Plan Change	0.00 %	0.00 %	0.00 %	0.00 %	0.00 %					
Total	1.63 %	0.36 %	1.96 %	3.88 %	1.81 %					



#### **Discussion and Comments**

#### Comment 1:

The State Employees' and Teachers' 401(h) accounts are negative as of June 30, 2012. In the prior valuation, the medical subsidy contribution rates for the 2014-15 biennium were determined in order to replenish the accounts and provide a margin of 20% of expected annual benefit payments by June 30, 2015.

Based on the June 30, 2012 valuation, the State Employees' and Teachers' 401(h) accounts are projected to be negative by June 30, 2015. The factors contributing to the projected shortfall in the current valuation are lower than expected payroll for both member classifications and higher than expected benefit payments for Teachers.

The estimated contribution rates for the 2016-17 biennium determined by this valuation are the amounts needed to replenish the accounts and provide a margin of 20% of expected annual benefit payments by June 30, 2017.

We recommend continuing to monitor this situation closely and to review the methodology in the June 30, 2013 valuation.

#### Comment 2:

The pension normal cost for members hired on and after July 1, 2011 is lower than for other active members. Based on the June 30, 2012 valuation, the estimated normal cost rates for those hired on and after July 1, 2011 are shown in the table below.

Normal Cost	Employees	Teachers	Police	Fire	Total
Total	8.24 %	7.12 %	12.66 %	13.35 %	8.50 %
Member	7.00 %	7.00 %	11.55 %	11.80 %	7.70 %
Employer	1.24 %	0.12 %	1.11 %	1.55 %	0.80 %

The normal cost for the active populations of the four member classifications is expected to decrease each year towards the rates for new hires. Note that the group of those hired on and after July 1, 2011 is still small. 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 3:

This valuation assumes that NHRS remains an open plan to all new hires for participating employers which is a critical component of the funding method. In the event that certain employers are allowed to put new hires in a different plan or plans, those employers would effectively be closed units within NHRS. In that event, we recommend that the unfunded actuarial accrued liability for closed and open employers be calculated and funded separately in order to maintain equity between all employers.

As in the prior valuation, we have included an amortization schedule of the unfunded actuarial accrued liability on a level dollar basis (page 24). This is an approach that is easier to administer when payroll is declining due to fully or partially closing the plan.

#### **Comment 4:**

In June 2012, the Governmental Accounting Standards Board (GASB) issued new pension accounting Standards No. 67 and No. 68 for retirement systems and sponsoring governmental entities respectively. The new standards are a dramatic change from the current GASB Statements No. 25 and No. 27. Highlights of the changes are:

Accounting calculations and disclosures that are separate from funding calculations – effectively meaning valuations will now contain two distinct sets of plan financial calculations,
☐ Separate accounting for every GAAP reporting entity in a costsharing multi-employer plan such as NHRS,
☐ Disclosure of the proportionate share of the Net Pension Liability (Liability less the Market Value of Assets) on the employers' balance sheets,
☐ Computation of the proportionate share of the annual Pension Expense for each employer,
☐ The effective date is the first fiscal year following June 15, 2013 for plan disclosures and the first fiscal year following June 15, 2014 for Employer disclosures.

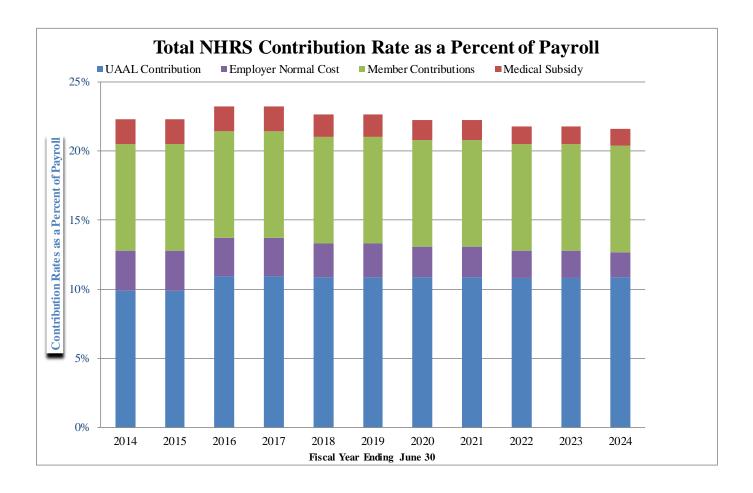
The Pension Expense and Net Pension Liability are likely to be more volatile than the annual contribution rates as determined under New Hampshire Statute.

The increased administrative costs to the System for providing financial disclosure information to each GAAP reporting entity may be significant. It is important to note that the GAAP reporting entities that will need accounting information from NHRS may not be in one to one correspondence with the participating employers. Some employers may have multiple entities such as a housing authority, enterprise fund, etc., and it is also possible that separate employers may be combined as one GAAP entity such as town and county sheriffs.



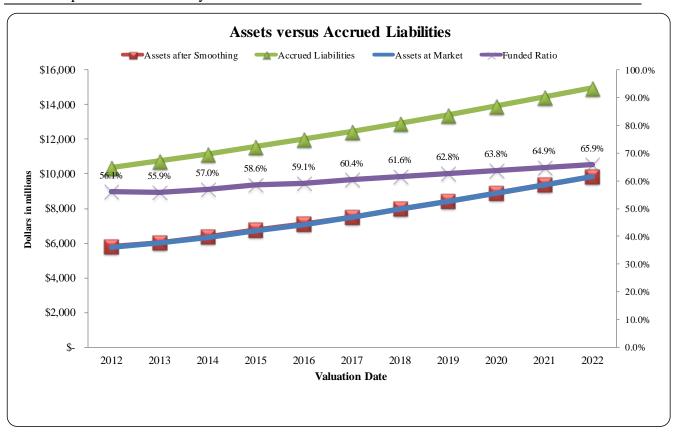
#### **Projections**

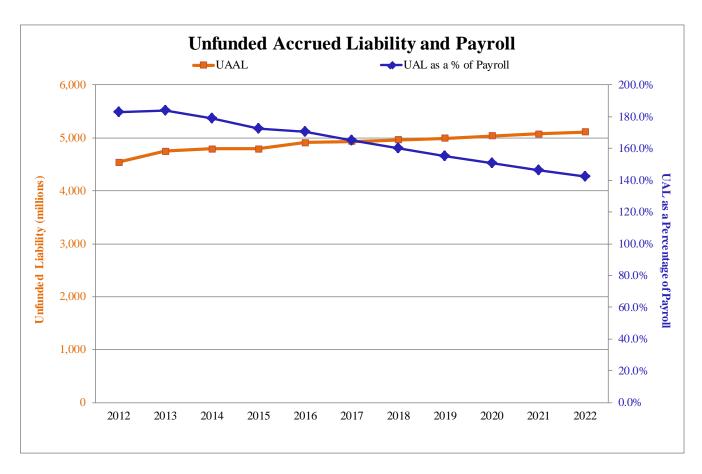
Projection results are useful in demonstrating changing relationships among key elements affecting system financial activity. For example, it demonstrates how benefits and system assets will grow in future decades. Projections are not predictions of specific future events and do not provide numeric precision 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	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Medical Subsidy	1.81%	1.81%	1.81%	1.81%	1.63%	1.63%	1.47%	1.47%	1.31%	1.31%	1.19%
Employer Normal Cost	2.87%	2.87%	2.81%	2.81%	2.47%	2.47%	2.22%	2.22%	1.99%	1.99%	1.79%
UAAL Contribution	9.92%	9.92%	10.92%	10.92%	10.87%	10.87%	10.85%	10.85%	10.80%	10.80%	10.90%
Employer Subtotal	14.60%	14.60%	15.54%	15.54%	14.97%	14.97%	14.54%	14.54%	14.10%	14.10%	13.88%
Member Contributions	7.69%	7.69%	7.70%	7.70%	7.70%	7.70%	7.70%	7.70%	7.70%	7.70%	7.70%
Grand Total	22.29%	22,29%	23.24%	23.24%	22.67%	22.67%	22.24%	22.24%	21.80%	21.80%	21.58%







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. The projections lead to some general observations:

- 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 postJuly 1, 2011 hires and declining medical subsidy contributions as a percent of payroll.
  These declines offset projected increases from the asset smoothing method caused by past
  losses being phased into the actuarial value of assets.
- 2. The funded ratio is projected to increase steadily to 66% 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, 2011.
- 4. The projection is highly sensitive to the actual and expected profile of new hires. This is the first valuation with members hired on and after July 1, 2011 but most of those members did not have a full year of service on the valuation date. 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.



FUNDING RESULTS

#### Development of Employer Contribution Rates State Employees

Division:	Employees	Teachers	Police	Fire	Tot	tal
Normal Cost						
Age and Service Retirement	6.52%		10.67%	15.41%		7.33%
Termination	2.17%		5.18%	2.21%		2.44%
Death-in-Service	0.19%		0.18%	0.14%		0.15%
Disability	0.24%		0.88%	0.91%		0.25%
Expenses	0.35%		0.35%	0.35%		0.35%
Total	9.47%		17.26%	19.02%		10.51%
UAAL Payment*	8.71%		<u>17.10%</u>	18.61%		10.92%
Total Pension Contribution	18.18%		34.36%	37.63%		21.43%
Fiscal Year 2016						
Member Contributions	7.00%		11.55%	11.80%		7.70%
Employer Pension Contribution	11.18%		22.81%	25.83%		13.73%
Employer Health Subsidy Contribution	1.63%		3.88%	3.88%		1.81%
<b>Total Employer Contribution</b>	12.81%	N/A	26.69%	29.71%		15.54%
Estimated Dollar Contribution	\$ 73,018,255	N/A	\$ 20,996,339 \$	1,332,646	\$ 95,	,347,240
Fiscal Year 2017						
Member Contributions	7.00%		11.55%	11.80%		7.70%
Employer Pension Contribution	11.18%		22.81%	25.83%		13.73%
Employer Health Subsidy Contribution	1.63%		3.88%	3.88%		1.81%
<b>Total Employer Contribution</b>	12.81%	N/A	26.69%	29.71%		15.54%
Estimated Dollar Contribution	\$ 75,756,440	N/A	\$ 21,783,702 \$	1,382,620	\$ 98,	3,922,761
Contribution Rates from Prior Valuation						
FY 2014#	12.13%		25.40%	27.85%		14.73%
FY 2015#	12.13%		25.40%	27.85%		14.73%

<sup>\*</sup> Unfunded Actuarial Accrued Liability, financed over a 24 year period from the contribution effective date -- 7/1/2015.

<sup>#</sup> Computed in June 30, 2011 Actuarial Valuation.



#### Development of Employer Contribution Rates Political Subdivision Members

Division:	Employees	Teachers	Police	Fire	Total
Normal Cost					
Age and Service Retirement	6.52%	6.44%	10.67%	15.41%	7.33%
Termination	2.17%	2.05%	5.18%	2.21%	2.44%
Death-in-Service	0.19%	0.09%	0.18%	0.14%	0.15%
Disability	0.24%	0.02%	0.88%	0.91%	0.25%
Expenses	0.35%	0.35%	0.35%	0.35%	0.35%
Total	9.47%	8.95%	17.26%	19.02%	10.51%
UAAL Payment*	8.71%	10.81%	<u>17.10%</u>	18.61%	10.92%
Total Pension Contribution	18.18%	19.76%	34.36%	37.63%	21.43%
Fiscal Year 2016					
Member Contributions	7.00%	7.00%	11.55%	11.80%	7.70%
Employer Pension Contribution	11.18%	12.76%	22.81%	25.83%	13.73%
Employer Health Subsidy Contribution	0.36%	1.96%	3.88%	3.88%	<u>1.81%</u>
<b>Total Employer Contribution</b>	11.54%	14.72%	26.69%	29.71%	15.54%
Estimated Dollar Contribution	\$ 78,202,116	\$ 176,796,424	59,983,762	\$ 37,378,744 \$	352,361,046
Fiscal Year 2017					
Member Contributions	7.00%	7.00%	11.55%	11.80%	7.70%
Employer Pension Contribution	11.18%	12.76%	22.81%	25.83%	13.73%
Employer Health Subsidy Contribution	0.36%	1.96%	3.88%	3.88%	1.81%
<b>Total Employer Contribution</b>	11.54%	14.72%	26.69%	29.71%	15.54%
Estimated Dollar Contribution	\$ 81,134,695	\$ 183,426,290	62,233,153	\$ 38,780,447 \$	365,574,585
<b>Contribution Rates from Prior Valuation</b>					
FY 2014#	10.77%	14.16%	25.30%	27.74%	14.68%
FY 2015#	10.77%	14.16%	25.30%	27.74%	14.68%

<sup>\*</sup> Unfunded Actuarial Accrued Liability, financed over a 24 year period from the contribution effective date -- 7/1/2015.



<sup>#</sup> Computed in June 30, 2011 Actuarial Valuation.

#### Development of Pension Actuarial Liabilities June 30, 2012

Actuarial Present Value of	7	Γotal Present Value (1)	I	rtion Covered by Future Normal Cost Contributions (2)	tuarial Accrued Liabilities (1) - (2)
Age and service allowances based on total service likely to be rendered by present active members	\$	6,365,557,930	\$	1,374,644,900	\$ 4,990,913,030
Disability benefits likely to be paid to present active members		52,028,717		44,529,444	7,499,273
Death-in-service benefits likely to be paid on behalf of present active members (employer financed portion)		56,743,055		25,309,352	31,433,703
Separation benefits (refunds of contributions and deferred allowances) likely to be paid to present active members		416,540,343		495,271,381	(78,731,038)
Benefits likely to be paid to current inactive and vested deferred members		163,813,191		-	163,813,191
Benefits to be paid to current retirees, beneficiaries, and future beneficiaries of current retirees		5,246,672,292			5,246,672,292
Total	\$	12,301,355,528	\$	1,939,755,077	\$ 10,361,600,451
Actuarial Value of Assets	\$	5,817,881,588	\$	-	\$ 5,817,881,588
Liabilities to be Covered by Future Contributions	\$	6,483,473,940	\$	1,939,755,077	\$ 4,543,718,863



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

#### Level Percent Amortization

	<b>Fiscal</b>						
	Year	<b>Employer</b>		UAAL			
	Ending	<b>Contribution Rates</b>	Projected	Beginning of	<b>UAAL</b>	<b>UAAL End</b>	<b>Funded</b>
Year	June 30,	UAAL Payment	Payroll	Year	Payment	of Year	Ratio
	2013	7.16%	\$ 2,581	\$ 4,544	\$ 185	\$ 4,704	56.1%
	2014	9.97%	2,678	4,704	267	4,791	55.9%
	2015	9.97%	2,778	4,791	277	4,875	56.8%
1	2016	10.92%	2,882	4,875	315	4,926	57.9%
2	2017	10.92%	2,991	4,926	327	4,969	59.1%
3	2018	10.92%	3,103	4,969	339	5,002	60.3%
4	2019	10.92%	3,219	5,002	352	5,025	61.5%
5	2020	10.92%	3,340	5,025	365	5,036	62.7%
6	2021	10.92%	3,465	5,036	378	5,033	64.0%
7	2022	10.92%	3,595	5,033	393	5,015	65.4%
8	2023	10.92%	3,730	5,015	407	4,981	66.7%
9	2024	10.92%	3,870	4,981	423	4,929	68.2%
10	2025	10.92%	4,015	4,929	438	4,855	69.7%
11	2026	10.92%	4,165	4,855	455	4,759	71.3%
12	2027	10.92%	4,321	4,759	472	4,638	72.9%
13	2028	10.92%	4,484	4,638	490	4,489	74.7%
14	2029	10.92%	4,652	4,489	508	4,310	76.5%
15	2030	10.92%	4,826	4,310	527	4,097	78.5%
16	2031	10.92%	5,007	4,097	547	3,847	80.5%
17	2032	10.92%	5,195	3,847	567	3,556	82.6%
18	2033	10.92%	5,390	3,556	589	3,220	84.9%
19	2034	10.92%	5,592	3,220	611	2,836	87.2%
20	2035	10.92%	5,801	2,836	634	2,398	89.6%
21	2036	10.92%	6,019	2,398	657	1,901	92.1%
22	2037	10.92%	6,245	1,901	682	1,341	94.7%
23	2038	10.92%	6,479	1,341	707	710	97.3%
24	2039	10.92%	6,722	710	734	-	100.1%

The funded ratio is projected in this amortization schedule assuming all actuarial assumptions are exactly met. Actual experience will differ.

**GRS** 

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

Level Dollar Amortization (Not the Statutory Method)

(Hypothetical Illustration)

		UAAL			
	Fiscal Year	Beginning	UAAL	<b>UAAL End</b>	<b>Funded</b>
Year	Ending June 30,	of Year	Payment	of Year	Ratio
	2013	\$ 4,544	\$ 185	\$ 4,704	56.1%
	2014	4,704	267	4,791	55.9%
	2015	4,791	277	4,875	56.8%
1	2016	4,875	437	4,799	58.5%
2	2017	4,799	437	4,718	60.7%
3	2018	4,718	437	4,630	62.9%
4	2019	4,630	437	4,535	65.1%
5	2020	4,535	437	4,433	67.2%
6	2021	4,433	437	4,323	69.3%
7	2022	4,323	437	4,205	71.3%
8	2023	4,205	437	4,077	73.4%
9	2024	4,077	437	3,940	75.4%
10	2025	3,940	437	3,792	77.4%
11	2026	3,792	437	3,632	79.3%
12	2027	3,632	437	3,460	81.2%
13	2028	3,460	437	3,275	83.1%
14	2029	3,275	437	3,075	84.9%
15	2030	3,075	437	2,860	86.7%
16	2031	2,860	437	2,628	88.4%
17	2032	2,628	437	2,378	90.1%
18	2033	2,378	437	2,109	91.7%
19	2034	2,109	437	1,819	93.3%
20	2035	1,819	437	1,507	94.8%
21	2036	1,507	437	1,170	96.2%
22	2037	1,170	437	807	97.6%
23	2038	807	437	416	98.8%
24	2039	416	437	0	100.0%

The funded ratio is projected in this amortization schedule assuming all actuarial assumptions are exactly met. Actual experience will differ.

#### Actuarial Balance Sheet as of June 30, 2012

#### Assets and Present Value of Expected Future Contributions

		Pension	Medical Subsidy
A. Presen	t valuation assets		
1. Net	assets from system financial statements	\$ 5,750,326,794	\$ 24,016,379
2. Res	erve for TSAs	(4,371,600)	-
3. Fun	ding value adjustment	71,926,394	300,631
4. Val	uation assets	5,817,881,588	24,317,010
B. Actuar contrib	ial present value of expected future employer utions		
1. For	normal costs	397,385,069	18,710,117
2. For	unfunded actuarial accrued liability	4,543,718,863	728,442,016
3. Tot	al	4,941,103,932	747,152,133
C. Actuar contrib	ial present value of expected future member	1,542,370,008	_
Contrib	wions	1,5 12,5 7 0,000	
D. Total P	resent and Expected Future Resources	\$ 12,301,355,528	\$ 771,469,143

#### Present Value of Expected Future Benefit Payments

	Pension	Medical Subsidy
A. To retirees and beneficiaries	\$ 5,246,672,292	\$ 604,839,687
B. To vested terminated members	119,662,164	-
C. To non-vested terminated members (outstanding refunds)	44,151,027	-
D. To present active members		
1. Allocated to service rendered prior to		
valuation date - actuarial accrued liability	4,951,114,968	147,919,339
2. Allocated to service likely to be rendered		
after valuation date	1,939,755,077	18,710,117
3. Total	6,890,870,045	166,629,456
E. Total Actuarial Present Value of Expected Future Pension		
Payments	\$ 12,301,355,528	\$ 771,469,143



#### Experience Gain/(Loss) -- June 30, 2012

	Pension	Medical Subsidy
(1) UAAL* at start of biennium	\$ 4,257,734,925	\$ 744,352,867
(2) Normal cost from last valuation for year 1	276,114,128	3,203,080
(3) Actual contributions (employer and employee) for year 1	454,149,706	48,963,885
(4) Interest accrual: [(1)+1/2 [(2)-(3)]] x .0775	323,075,578	55,914,116
(5) Expected UAAL end of year 1: (1)+(2)-(3)+(4)	4,402,774,925	754,506,178
(6) Change from legislation	-	-
(7) Change from revised actuarial assumptions	-	-
(8) VCP Transfer	-	-
(9) Expected UAAL after changes: (5)+(6)+(7)+(8)	4,402,774,925	754,506,178
(10) Actual UAAL at end of year	4,543,718,863	728,442,016
(11) Gain/(loss) for year 1: (9)-(10)	(140,943,938)	26,064,162
(12) Gain/(loss) as percent of actuarial accrued		
liabilities at start of year	(1.4)%	3.4 %

<sup>\*</sup> Unfunded Actuarial Accrued Liabilities.

#### Pension Solvency Test

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

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

- 1) Active member contributions on deposit;
- 2) The liabilities for future benefits to present retired lives;

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3) The liabilities for service already rendered by active and inactive members.

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

Total of all Groups (\$ in Thousands)

_	Projec	cted Pension Li	labilities For	_			
·	(1)	(2)	(3)	_	Percer	ntage of A	ccrued
	Aggregate	Current	Active & Inactive	Net Assets	Liabilitie	s Covere	d By Net
Fiscal	Member	Retirees &	Members (Employer	Available	Ass	ets Avail	able
Year	Contributions	Beneficiaries	Financed Portion)	For Benefits	<u>(1)</u>	<u>(2)</u>	<u>(3)</u>
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%

<sup>#</sup> After reflection of changes in assumptions.

<sup>\*</sup> After reflection of changes in legislation.

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

**Projected Pension Liabilities For (1) (3) (2)** Percentage of Accrued **Aggregate** Current **Active & Inactive** Liabilities Covered By Net **Net Assets Fiscal** Member Retirees & Members (Employer **Available Assets Available** Group Year Contributions Beneficiaries **Financed Portion**) For Benefits **(1)** <u>(2)</u> <u>(3)</u> 2007 797,627 \$ 997,992 \$1,539,196 100% 74% 0% **Employees** \$ 528,538 Teachers 2007 \* 925,813 1,200,541 797,922 1,925,913 100% 83% 0% 655,803 Police 2007 344,485 339,086 934,744 100% 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% 2009 899,364 **Employees** 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% 2009 Police 381,273 790,433 378,409 940,825 100% 71% 0% Fire 2009 \* 186,949 396,070 169,135 439,241 100% 64% 0% 680,958 57% 0% **Employees** 2010 955,735 1,344,902 1,721,002 100% **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% #\* 995,389 810,983 54% 0% **Employees** 2011 1,548,109 1,834,609 100% Teachers #\* 973,407 100% 59% 0% 2011 1,041,699 1,893,862 2,153,182 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% 2012 1,877,395 50% 0% **Employees** 1,052,106 1,641,026 756,255 100% 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% 2012 100% Fire 208,041 514,489 203,805 577,864 72% 0%



<sup>#</sup> After reflection of changes in assumptions.

<sup>\*</sup> After reflection of changes in legislation.

#### Development of Pension Actuarial Liabilities June 30, 2012

#### **Employees Pension**

Actuarial Present Value of	Т	Cotal Present Value (1)	N	rtion 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	\$	2,316,276,635	\$	515,650,621	\$ 1,800,626,014
Disability benefits likely to be paid to present active members		10,530,161		16,923,676	(6,393,515)
Death-in-service benefits likely to be paid on behalf of present active members (employer financed portion)		31,321,612		14,307,246	17,014,366
Separation benefits (refunds of contributions and deferred allowances) likely to be paid to present active members		111,992,721		193,515,890	(81,523,169)
Benefits likely to be paid to current inactive and vested deferred members		78,637,836		-	78,637,836
Benefits to be paid to current retirees, beneficiaries, and future beneficiaries of current retirees		1,641,025,942		-	1,641,025,942
Total	\$	4,189,784,907	\$	740,397,433	\$ 3,449,387,474
Actuarial Value of Assets	\$	1,877,394,780	\$	-	\$ 1,877,394,780
Liabilities to be Covered by Future Contributions	\$	2,312,390,127	\$	740,397,433	\$ 1,571,992,694



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

Employer	
Contribution Do	4

	Fiscal Year	<b>Contribution Rates</b>	- Projected	UAAL Beginning	UAAL	UAAL End	Funded
Year	Ending June 30,	<b>UAAL Payment</b>	Payroll	of Year	Payment	of Year	Ratio
	2013	6.01%	\$ 1,117	\$ 1,572	\$ 67	\$ 1,624	54.4%
	2014	7.97%	1,159	1,624	92	1,654	54.5%
	2015	7.97%	1,202	1,654	96	1,683	55.6%
1	2016	8.71%	1,247	1,683	109	1,700	57.0%
2	2017	8.71%	1,294	1,700	113	1,714	58.4%
3	2018	8.71%	1,343	1,714	117	1,725	59.8%
4	2019	8.71%	1,393	1,725	121	1,733	61.2%
5	2020	8.71%	1,445	1,733	126	1,736	62.7%
6	2021	8.71%	1,499	1,736	131	1,735	64.1%
7	2022	8.71%	1,555	1,735	135	1,729	65.6%
8	2023	8.71%	1,613	1,729	140	1,718	67.1%
9	2024	8.71%	1,673	1,718	146	1,700	68.7%
10	2025	8.71%	1,736	1,700	151	1,675	70.2%
11	2026	8.71%	1,801	1,675	157	1,642	71.9%
12	2027	8.71%	1,869	1,642	163	1,600	73.6%
13	2028	8.71%	1,939	1,600	169	1,549	75.3%
14	2029	8.71%	2,012	1,549	175	1,487	77.2%
15	2030	8.71%	2,087	1,487	182	1,413	79.1%
16	2031	8.71%	2,165	1,413	189	1,326	81.1%
17	2032	8.71%	2,246	1,326	196	1,225	83.2%
18	2033	8.71%	2,330	1,225	203	1,109	85.4%
19	2034	8.71%	2,417	1,109	211	976	87.7%
20	2035	8.71%	2,508	976	218	825	90.1%
21	2036	8.71%	2,602	825	227	653	92.5%
22	2037	8.71%	2,700	653	235	460	95.0%
23	2038	8.71%	2,801	460	244	242	97.5%
24	2039	8.71%	2,906	242	253	-	100.0%

The funded ratio is projected in this amortization schedule assuming all actuarial assumptions are exactly met. Actual experience will differ.

## Development of Pension Actuarial Liabilities June 30, 2012

### **Teachers Pension**

Actuarial Present Value of	Т	Total Present Value (1)	N	tion 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	\$	2,538,312,752	\$	515,720,654	\$ 2,022,592,098
Disability benefits likely to be paid to present active members		1,720,212		1,406,670	313,542
Death-in-service benefits likely to be paid on behalf of present active members (employer financed portion)		16,699,211		6,292,645	10,406,566
Separation benefits (refunds of contributions and deferred allowances) likely to be paid to present active members		124,371,360		178,492,265	(54,120,905)
Benefits likely to be paid to current inactive and vested deferred members		71,741,129		-	71,741,129
Benefits to be paid to current retirees, beneficiaries, and future beneficiaries of current retirees		1,999,151,978		-	1,999,151,978
Total	\$	4,751,996,642	\$	701,912,234	\$ 4,050,084,408
Actuarial Value of Assets	\$	2,173,314,598	\$		\$ 2,173,314,598
Liabilities to be Covered by Future Contributions	\$	2,578,682,044	\$	701,912,234	\$ 1,876,769,810



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

		<b>Employer</b>									
		Contribution			$\mathbf{U}$	AAL			υ	JAAL	
	Fiscal Year	Rates	Pr	ojected	Beg	ginning	UA	AL	E	and of	Funded
Year	Ending June 30,	<b>UAAL Payment</b>	P	ayroll	of	Year	Pay	ment	,	Year	Ratio
	2013	7.04%	\$	1,075	\$	1,877	\$	76	\$	1,943	53.7%
	2014	10.01%		1,116		1,943		112		1,977	53.3%
	2015	10.01%		1,158		1,977		116		2,010	54.1%
1	2016	10.81%		1,201		2,010		130		2,031	55.0%
2	2017	10.81%		1,246		2,031		135		2,048	56.1%
3	2018	10.81%		1,293		2,048		140		2,061	57.2%
4	2019	10.81%		1,341		2,061		145		2,070	58.3%
5	2020	10.81%		1,391		2,070		150		2,075	59.5%
6	2021	10.81%		1,443		2,075		156		2,074	60.7%
7	2022	10.81%		1,497		2,074		162		2,067	62.0%
8	2023	10.81%		1,553		2,067		168		2,053	63.3%
9	2024	10.81%		1,611		2,053		174		2,031	64.8%
10	2025	10.81%		1,671		2,031		181		2,000	66.3%
11	2026	10.81%		1,734		2,000		187		1,961	68.0%
12	2027	10.81%		1,799		1,961		194		1,912	69.8%
13	2028	10.81%		1,866		1,912		202		1,850	71.7%
14	2029	10.81%		1,936		1,850		209		1,776	73.7%
15	2030	10.81%		2,009		1,776		217		1,688	75.8%
16	2031	10.81%		2,084		1,688		225		1,585	78.1%
17	2032	10.81%		2,162		1,585		234		1,465	80.5%
18	2033	10.81%		2,243		1,465		242		1,327	83.0%
19	2034	10.81%		2,327		1,327		252		1,168	85.6%
20	2035	10.81%		2,414		1,168		261		988	88.3%
21	2036	10.81%		2,505		988		271		783	91.1%
22	2037	10.81%		2,599		783		281		552	94.0%
23	2038	10.81%		2,696		552		291		293	97.0%
24	2039	10.81%		2,797		293		302		-	100.0%

The funded ratio is projected in this amortization schedule assuming all actuarial assumptions are exactly met. Actual experience will differ.

## Development of Pension Actuarial Liabilities June 30, 2012

### Police Pension

Actuarial Present Value of	Т	otal Present Value (1)	N	rtion 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	\$	965,048,394	\$	195,650,656	\$ 769,397,738
Disability benefits likely to be paid to present active members		26,440,525		17,063,581	9,376,944
Death-in-service benefits likely to be paid on behalf of present active members (employer financed portion)		6,205,213		3,316,497	2,888,716
Separation benefits (refunds of contributions and deferred allowances) likely to be paid to present active members		152,295,149		100,910,957	51,384,192
Benefits likely to be paid to current inactive and vested deferred members		10,740,465		-	10,740,465
Benefits to be paid to current retirees, beneficiaries, and future beneficiaries of current retirees		1,092,005,039		-	1,092,005,039
Total	\$	2,252,734,785	\$	316,941,691	\$ 1,935,793,094
Actuarial Value of Assets	\$	1,189,308,074	\$	-	\$ 1,189,308,074
Liabilities to be Covered by Future Contributions	\$	1,063,426,711	\$	316,941,691	\$ 746,485,020



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

		<b>Employer</b>					
	Fiscal Year	Contribution		UAAL		UAAL	
	Ending -	Rates	- Projected	Beginning	UAAL	End of	Funded
Year	June 30,	<b>UAAL Payment</b>	Payroll	of Year	Payment	Year	Ratio
	2013	10.27%	\$ 272	\$ 746	\$ 28	\$ 775	61.4%
	2014	15.64%	282	775	44	789	61.0%
	2015	15.64%	293	789	46	802	61.8%
1	2016	17.10%	304	802	52	810	62.6%
2	2017	17.10%	315	810	54	817	63.5%
3	2018	17.10%	327	817	56	822	64.5%
4	2019	17.10%	339	822	58	826	65.5%
5	2020	17.10%	352	826	60	827	66.5%
6	2021	17.10%	365	827	62	827	67.5%
7	2022	17.10%	379	827	65	824	68.6%
8	2023	17.10%	393	824	67	818	69.7%
9	2024	17.10%	408	818	70	809	71.0%
10	2025	17.10%	423	809	72	797	72.2%
11	2026	17.10%	439	797	75	780	73.6%
12	2027	17.10%	455	780	78	760	75.1%
13	2028	17.10%	472	760	81	735	76.7%
14	2029	17.10%	490	735	84	704	78.3%
15	2030	17.10%	508	704	87	669	80.1%
16	2031	17.10%	527	669	90	627	82.0%
17	2032	17.10%	547	627	94	578	84.1%
18	2033	17.10%	568	578	97	522	86.2%
19	2034	17.10%	589	522	101	458	88.4%
20	2035	17.10%	611	458	104	385	90.6%
21	2036	17.10%	634	385	108	303	92.9%
22	2037	17.10%	658	303	113	209	95.3%
23	2038	17.10%	683	209	117	104	97.8%
24	2039	17.10%	709	104	121	-	100.0%

The funded ratio is projected in this amortization schedule assuming all actuarial assumptions are exactly met. Actual experience will differ.

## Development of Pension Actuarial Liabilities June 30, 2012

### Fire Pension

Actuarial Present Value of	Т	Total Present Value (1)	]	ortion 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	\$	545,920,149	\$	147,622,969	\$ 398,297,180
Disability benefits likely to be paid to present active members		13,337,819		9,135,517	4,202,302
Death-in-service benefits likely to be paid on behalf of present active members (employer financed portion)		2,517,019		1,392,964	1,124,055
Separation benefits (refunds of contributions and deferred allowances) likely to be paid to present active members		27,881,113		22,352,269	5,528,844
Benefits likely to be paid to current inactive and vested deferred members		2,693,761		-	2,693,761
Benefits to be paid to current retirees, beneficiaries, and future beneficiaries of current retirees		514,489,333		-	514,489,333
Total	\$	1,106,839,194	\$	180,503,719	\$ 926,335,475
Actuarial Value of Assets	\$	577,864,136	\$	-	\$ 577,864,136
Liabilities to be Covered by Future Contributions	\$	528,975,058	\$	180,503,719	\$ 348,471,339



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

Year	Fiscal Year Ending June 30,	Employer Contribution Rates UAAL Payment	Projected Payroll		0 0		UAAL Payment		E	AAL nd of Year	Funded Ratio
	2013	11.70%	\$	117	\$	348	\$	14	\$	361	62.4%
	2014	16.57%	Ψ	121	Ψ	361	4	20	Ψ	368	62.3%
	2015	16.57%		126		368		21		375	63.3%
1	2016	18.61%		131		375		24		379	64.4%
2	2017	18.61%		136		379		25		382	65.7%
3	2018	18.61%		141		382		26		385	66.9%
4	2019	18.61%		146		385		27		387	68.2%
5	2020	18.61%		151		387		28		388	69.5%
6	2021	18.61%		157		388		29		388	70.8%
7	2022	18.61%		163		388		30		387	72.1%
8	2023	18.61%		169		387		31		385	73.4%
9	2024	18.61%		175		385		33		381	74.8%
10	2025	18.61%		182		381		34		375	76.2%
11	2026	18.61%		189		375		35		368	77.6%
12	2027	18.61%		196		368		36		359	79.0%
13	2028	18.61%		203		359		38		347	80.5%
14	2029	18.61%		211		347		39		333	81.9%
15	2030	18.61%		219		333		41		316	83.5%
16	2031	18.61%		227		316		42		297	85.0%
17	2032	18.61%		236		297		44		274	86.6%
18	2033	18.61%		245		274		46		247	88.3%
19	2034	18.61%		254		247		47		217	90.1%
20	2035	18.61%		264		217		49		183	91.9%
21	2036	18.61%		274		183		51		144	93.8%
22	2037	18.61%		284		144		53		100	95.9%
23	2038	18.61%		295		100		55		51	98.0%
24	2039	18.61%		306		51		57		-	100.0%

The funded ratio is projected in this amortization schedule assuming all actuarial assumptions are exactly met. Actual experience will differ.

# **SECTION C**FUND ASSETS

## Comparative Balance Sheet At Market Value

	As Of June 30, 2012	As Of June 30, 2011
ASSETS		
Current Assets		
Cash - Local Custodian	\$ 6,876,015	\$ 3,794,394
Contributions Receivable	62,253,903	55,557,359
OPEB Plan Receivable	9,890,610	0
Receivable for Investments Sold	153,903,218	235,242,974
Interest and Dividends Receivable	17,836,417	16,554,563
Foreign Taxes Receivable	2,168,661	2,469,994
Prepaid Management Fees	110,970	103,333
Total Current Assets	\$ 253,039,794	\$ 313,722,617
Capital Assets (Net of Accumulated Depreciation)	645,125	72,564
Investments at Quoted Market Value:		
Domestic Investments	2,338,824,308	2,502,995,289
International Investments	949,051,353	1,109,328,905
Global Investments	167,810,286	164,669,827
Fixed Income Investments	1,559,057,309	1,554,760,568
Investments at Fair Market Value:		
Alternative Investments	100,977,092	81,439,600
Absolute Return Strategies	41,683,445	42,200,963
Commercial R/E Investments (Net Equity)	514,753,988	326,257,286
Temporary Investments	30,132,432	71,716,135
TOTAL ASSETS	\$ 5,955,975,132	\$ 6,167,163,754
LIABILITIES		
Management Fees & Other Payables	\$ 8,042,219	\$ 8,047,621
OPEB Plan Payable	9,890,610	0
Payable for Investments Purchased	163,699,131	267,936,941
TOTAL LIABILITIES	\$ 181,631,960	\$ 275,984,562
TOTAL FUND BALANCES	\$ 5,774,343,172	\$ 5,891,179,192



## Reconciliation of System Assets

	June 30, 2012												
Item		Employees		Teachers		Police#		Fire#		Total			
A. Market Value of Assets at Beginning of Year	\$	1,897,918,611	\$	2,195,636,625	\$	1,205,238,901	\$	592,385,055	\$	5,891,179,192			
B. Revenues and Expenditures													
1. Contributions													
a. Employee Contributions	\$	80,537,138	\$	74,965,354	\$	30,699,108	\$	13,391,187	\$	199,592,787			
b. Employer Contributions		104,618,690		117,530,393		54,768,848		26,602,874		303,520,805			
c. Total	\$	185,155,828	\$	192,495,747	\$	85,467,956	\$	39,994,061	\$	503,113,592			
2. Investment Return													
a. Interest, Dividends, and Other Income	\$	44,819,315	\$	51,207,862	\$	27,212,801	\$	14,960,890	\$	138,200,868			
b. Net Realized and Unrealized Gains/(Losses)		(31,345,418)		(36,294,195)		(19,264,833)		(10,800,801)		(97,705,247)			
c. Investment Expenses		(6,925,061)		(7,906,620)		(4,200,136)		(2,307,555)		(21,339,372)			
d. Net Investment Income	\$	6,548,836	\$	7,007,047	\$	3,747,832	\$	1,852,534	\$	19,156,249			
3. Benefits and Refunds													
a. Refunds	\$	(14,958,889)	\$	(6,974,402)	\$	(3,871,124)	\$	(730,261)	\$	(26,534,676)			
b. Regular Monthly Benefits		(175,232,046)		(218,464,559)		(100,433,038)		(49,750,090)		(543,879,733)			
c. Partial Lump-Sum Benefits Paid		(2,253,833)		(442,938)		(382,326)		(92,400)		(3,171,497)			
d. Medical Premium Subsidy Payments		(16,512,112)		(25,855,828)		(10,585,336)		(5,645,405)		(58,598,681)			
e. Total	\$	(208,956,880)	\$	(251,737,727)	\$	(115,271,824)	\$	(56,218,156)	\$	(632,184,587)			
4. Administrative Expenses	\$	(2,013,889)	\$	(2,299,180)	\$	(1,223,344)	\$	(672,185)	\$	(6,208,598)			
5. Miscellaneous Expenses	\$	(231,374)	\$	(263,943)	\$	(140,154)	\$	(77,204)	\$	(712,675)			
6. Interest Expense on OPEB Deficit	\$	(23,718)	\$	(920,677)	\$	-	\$	-	\$	(944,395)			
7. Interest Income on OPEB Deficit	\$	755,516	\$	-	\$	56,664	\$	132,215	\$	944,395			
8. Transfers	\$	-	\$	-	\$	-	\$	-	\$	-			
C. Market Value of Assets at End of Year	\$	1,879,152,930	\$	2,139,917,892	\$	1,177,876,031	\$	577,396,320	\$	5,774,343,173			

<sup># 401(</sup>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:	2010	2011	2012	2013	2014	2015	2016
A. Funding Value Beginning of Year	\$5,353,452,797	\$5,569,340,728	\$5,798,249,321				
B. Market Value End of Year	4,898,338,838	5,891,179,192	5,774,343,173				
C. Market Value Beginning of Year	4,461,210,664	4,898,338,838	5,891,179,192				
D. Non-Investment Net Cash Flow	(126,689,841)	(150,146,624)	(135,992,268)				
E. Investment Income							
E1. Market Total: B - C - D	563,818,015	1,142,986,978	19,156,249				
E2. Assumed Rate	8.50%	8.50%	7.75%				
E3. Amount for Immediate Recognition	449,659,170	467,012,730	444,094,622				
E4. Amount for Phased-In Recognition: E1-E3	114,158,845	675,974,248	(424,938,373)				
F. Phased-In Recognition of Investment Income							
F1. Current Year: 0.20 x E3	22,831,769	135,194,850	(84,987,675)				
F2. First Prior Year	(183,524,414)	22,831,769	135,194,850	\$ (84,987,675)			
F3. Second Prior Year	(149,296,007)	(183,524,414)	22,831,769	135,194,850	\$ (84,987,675)		
F4. Third Prior Year	86,836,289	(149,296,007)	(183,524,414)	22,831,769	135,194,850	\$ (84,987,675)	
F5. Fourth Prior Year	116,070,965	86,836,289	(149,296,007)	(183,524,414)	22,831,769	135,194,849	\$ (84,987,673)
F6. Total Recognized Investment Gain	(107,081,398)	(87,957,513)	(259,781,477)	(110,485,470)	73,038,944	50,207,174	(84,987,673)
G. Preliminary Funding Value End of Year: $A + D + E3 + F6$	5,569,340,728	5,798,249,321	\$5,846,570,198				
H. Additional Recognized G/L due to Corridor	-	-	-				
I. Final Funding Value after 20% Corridor	5,569,340,728	5,798,249,321	5,846,570,198				
J. Difference between Market & Funding Value: B-I	(671,001,890)	92,929,871	(72,227,025)				
K. Recognized Rate of Return	6.48%	6.90%	3.22%				
L. Market Rate of Return	12.82%	23.70%	0.33%				
M. Ratio of Funding Value to Market Value	113.70%	98.42%	101.25%				

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, 2012

	<b>Employees</b>	Teachers	Police	Fire	Total
Allocated Fund Assets (Actuarial Value)	\$ 1,902,667,288	\$ 2,166,674,077	\$ 1,192,612,057	\$ 584,616,776	\$ 5,846,570,198
Less Reserve for TSAs	(670,700)	(2,457,200)	(665,000)	(578,700)	(4,371,600)
Less 401(h) Account	(24,601,808)	9,097,721	(2,638,983)	(6,173,940)	(24,317,010)
Net Pension Valuation Assets	\$1,877,394,780	\$2,173,314,598	\$1,189,308,074	577,864,136	\$ 5,817,881,588

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, 2012.

### Reserve for TSA's Reconciliation

(1) Classification	(2) Balance as of June 30, 2011	(3) Benefits Purchased	(4) Transfer to State Annuity Accumulation Fund	(5) Balance as of July 1, 2011 (2) - (3) + (4)	(6) Interest	(7) Asset Gain	June 30, 2012 (5) + (6) + (7)	(9) Estimated July 1, 2012 COLA in Valuation	(10) Transfer to State Annuity Accumulation Fund	(11) Final Valuation Assets as of June 30, 2012 (8) - (9) - (10)	(12) Estimated TSA Payable July 1, 2012	(13) Estimated Balance July 1, 2012 (11) - (12)
Employees	¢ 11.022.075	œ.	¢ (11,000,075)	¢.	œ.	•	¢.	¢.	Φ.	•	Ф.	Φ.
State	\$ 11,022,075		\$ (11,022,075)		\$ -	\$ -	3 252 594	\$ -	\$ -	\$ -	\$ -	\$ -
Political Subd.	11,814,591	711,300	(7,951,204)	3,152,087	101,497	-	3,253,584	-	2,582,884	670,700	670,700	-
Teachers	47,800,338	2,582,800	(33,772,000)	11,445,538	368,546	-	11,814,084	-	9,356,884	2,457,200	2,457,200	-
Police Officers		-	-	-								
State	30,844,711	_	(30,844,711)	_		_		_		_		
Political Subd.	99,752,029	656,000	(96,189,001)	2,907,028	93,606	-	3,000,634	-	2,335,634	665,000	665,000	-
Folitical Subu.	99,132,029	030,000	(90,189,001)	2,907,028	93,000	-	3,000,034	-	2,333,034	003,000	003,000	-
Firefighters		-	-	-								
State	2,330,918	_	(2,330,918)	_	_	_	_	_	_	_	_	_
Political Subd.	77,273,713	563,100	(74,215,266)	2,495,347	80,350	_	2,575,697	_	1,996,997	578,700	578,700	_
1 ombal baba.	. 7,273,713	203,100	(, 1,213,200)	2, 193,317	00,550		2,373,077		2,770,771	370,700	370,700	
Totals	\$280,838,375	\$ 4,513,200	\$ (256,325,175)	\$ 20,000,000	\$ 643,999	\$ -	\$ 20,643,999	\$ -	\$ 16,272,399	\$ 4,371,600	\$ 4,371,600	\$ -

Classification		Estimated Prese	nt Value of Supplementa	l Annuities Payable Jul	y 1, 2012	
		\$1,000 for				
	1.5% up to \$30,000	< \$20,000	\$500 for <1993	\$500/\$1,000**	Total	Grand Total
Employees						
State	\$ -			\$ -	\$ -	\$ -
Political Subd.	-			670,700	670,700	670,700
Teachers	-			2,457,200	2,457,200	2,457,200
Police Officers				-		
State	-			-	-	-
Political Subd.	-			665,000	665,000	665,000
Firefighters				-		
State	-			-	-	-
Political Subd.				578,700	578,700	578,700
Totals	\$ -	\$ -	\$ -	\$ 4,371,600	\$ 4,371,600	\$ 4,371,600

<sup>\*\*</sup> Detail provided by NHRS

NOTE: The Special Account has been eliminated. This schedule is included in the valuation to show the final reconciliation of the Special Account. Future valuation reports will not contain this exhibit.

# SECTION D ACCOUNTING DISCLOSURES

This information is presented in draft form for review by the System's auditor. Please let us know if there are any items that the auditor changes so that we may maintain consistency with the System's financial statements.

# Schedule of Pension Funding Progress (As Required by GASB Statement No. 25)

		Actuarial				UAAL as a
Actuarial Valuation Date	Actuarial Value of Assets (a)	Accrued Liability (AAL) Entry Age (b)	Unfunded AAL (UAAL) (b)-(a)	Funded Ratio (a)/(b)	Covered Payroll (c)	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 %

<sup>\*</sup> After Benefit/Legislative changes.



<sup>#</sup> After Assumption changes/methods.

### Schedule of Employer Pension Contributions

GASB No. 25 Annual Required

**Contribution (ARC)\* Employer Contributions Projected Actual** ARC## **Fiscal Year Projected Payroll Actual Payroll** Contribution ARC as % of GASB ARC **Ending June 30:** (\$ Thousands) % of Pavroll (\$ Thousands) (\$ Thousands) (\$ Thousands) Contributed **(1) (2) (3) (5) (6) (7) (4)** 2008# \$ 2,294,130 \$ 241,456 \$ 2,308,321 \$ 249,898 10.52 % 75 % 2,397,365 10.52 % 2,448,287 75 % 2009# 252,321 261,450 2,505,247 268,061 2,481,384 2010 10.70 % 269,677 100 % 2011 2,617,983 10.70 % 280,124 2,517,779 274,582 100 % 2012 2,793,902 10.23 % 285,816 2,487,757 100 % 254,557 2013 2,919,628 9.97 % 291,087 2014 2,811,784 12.79 % 359,627 2015 2,917,226 12.79 % 373,113 2016 2,882,441 395,759 13.73 % 2,990,533 2017 13.73 % 410,600

<sup>\*</sup> ARC Amounts for 2008 through 2011 are estimated based on the contribution rate in effect in the year indicated and the June 30, 2007 valuation payroll projected at the assumed wage inflation rate of 4.50% per year. ARC Amounts for 2012 and beyond are estimated based on the contribution rate in effect and the wage inflation rate from the rate setting valuation. For the 2016-17 biennium, the ARC is estimated based on the June 30, 2012 valuation. The actual ARC will be based on the June 30, 2013 valuation.

<sup>#</sup> Developed by prior actuary. Actual contributions are based on the ARC % times actual payroll. For FY 2008 and 2009 25% of the total contribution was paid to the 401(h) subtrust and 75% to the pension trust.

<sup>##</sup> ARC is computed as a percent of payroll. Projected dollar amounts are illustrative.

# Notes to Required Supplementary Information (As Required by GASB Statement No. 25)

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

Valuation Date June 30, 2012

Actuarial Cost Method Entry Age Normal

Amortization Method Level Percentage of Payroll, Closed

Equivalent Single Amortization Period 24 Years

Valuation Asset Method 5-Year Smoothed Market

**Actuarial Assumptions:** 

Investment Rate of Return \* 7.75%

Projected Salary Increase \* 4.15% to 24.55%

\* Includes Price Inflation at 3.00%

Rate of Payroll Growth 3.75%

Cost-of-Living Adjustments None



# Post-Retirement Medical Subsidy GASB Statement No. 43 Reporting

## Contributions Expressed as Percents of Payroll

	Political		Police		
State	Subdivision	&			
Employees	<b>Employees</b>	Teachers	Fire	Total	
0.00%	0.00%	0.00%	0.65%	0.10%	
0.00%	0.00%	0.00%	0.03%	0.00%	
0.00%	0.00%	0.00%	0.00%	0.00%	
0.00%	0.00%	0.00%	0.06%	0.01%	
0.00%	0.00%	0.00%	0.74%	0.11%	
1.63%	0.36%	1.96%	3.14%	1.70%	
1.63%	0.36%	1.96%	3.88%	1.81%	
1.63%	0.36%	1.96%	3.88%	1.81%	
\$ 9,291,160	\$ 2,439,581	\$ 23,540,828	\$ 16,827,847	\$52,099,416	
1.63%	0.36%	1.96%	3.88%	1.81%	
\$9,639,578	\$2,531,065	\$24,423,609	\$17,458,891	\$54,053,143	
	0.00% 0.00% 0.00% 0.00% 0.00% 1.63% 1.63% \$ 9,291,160	State Employees         Subdivision Employees           0.00%         0.00%           0.00%         0.00%           0.00%         0.00%           0.00%         0.00%           0.00%         0.00%           1.63%         0.36%           \$ 9,291,160         \$ 2,439,581           1.63%         0.36%           \$ 0.36%         \$ 0.36%	State Employees         Subdivision Employees         Teachers           0.00%         0.00%         0.00%           0.00%         0.00%         0.00%           0.00%         0.00%         0.00%           0.00%         0.00%         0.00%           0.00%         0.00%         0.00%           1.63%         0.36%         1.96%           \$ 9,291,160         \$ 2,439,581         \$ 23,540,828           1.63%         0.36%         1.96%           \$ 1.63%         0.36%         1.96%	State Employees         Subdivision Employees         Teachers         & Fire           0.00%         0.00%         0.00%         0.65%           0.00%         0.00%         0.00%         0.03%           0.00%         0.00%         0.00%         0.00%           0.00%         0.00%         0.00%         0.06%           0.00%         0.00%         0.00%         0.74%           1.63%         0.36%         1.96%         3.88%           \$ 9,291,160         \$ 2,439,581         \$ 23,540,828         \$ 16,827,847           1.63%         0.36%         1.96%         3.88%	

Accrued Medical Subsidy Liabilities, \$752,759,026 were more than applicable assets of \$24,317,010.

The calculations above show the estimated employer's Annual Required Contribution (ARC) for the years ended June 30, 2016 and June 30, 2017.

<sup># 24-</sup>year amortization of UAAL, but not less than solvency rate.



## Determination of Unfunded Actuarial Accrued Liability (Medical) as of June 30, 2012

		State	5	Political Subdivision		Police &	
	]	Employees	]	Employees	Teachers	Fire	Total
A. Present Value of Future Medical Benefits							
1. Retirees and Beneficiaries	\$	88,414,544	\$	73,253,911	\$ 254,849,708	\$ 188,321,524	\$ 604,839,687
2. Vested Terminated Members		-		-	-	-	-
3. Active Members						166,629,456	166,629,456
Total Present Value of Future Medical Benefits		88,414,544		73,253,911	254,849,708	354,950,980	771,469,143
B. Present Value of Future Employer Normal Costs		-		-	-	18,710,117	18,710,117
C. Present Value of Future Contributions from							
Current Active Members		-		-	-	-	-
D. Actuarial Medical Accrued Liability (ABC.)		88,414,544		73,253,911	254,849,708	336,240,863	752,759,026
E. 401(h) Subtrust Actuarial Value of Assets		(916,697)		25,518,505	(9,097,721)	8,812,923	24,317,010
F. Unfunded Actuarial Accrued Liability (DE.)	\$	89,331,241	\$	47,735,406	\$ 263,947,429	\$ 327,427,940	\$ 728,442,016

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

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

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

Valuation Date June 30, 2012

Actuarial Cost Method Entry Age Normal

Amortization Method Level Percentage of Payroll, Closed

Equivalent Single Amortization Period 13 Years\*

Valuation Asset Method 5-Year Smoothed Market

**Actuarial Assumptions:** 

Investment Rate of Return @ 3.75%

Projected Salary Increase @ 4.15% to 24.55%

@ Includes Price Inflation at 3.00%

Rate of Payroll Growth 3.75%

Increase in Medical Supplement None

<sup>\*</sup> The ARC is based on the greater of a 24 year amortization or the amount necessary to meet cash flow.

## **State Employees**

Valuation			<b>Employer Contrib</b>	Benefits	Solvency	
Year Ending	Pay	Rate Total	Rate Health	<b>Dollars Health</b>	Paid	Assets
6/30/2012	\$ 491,960,120					\$ -
6/30/2013	510,408,625	10.08%	1.60%	\$ 8,166,538	\$9,218,417	-
6/30/2014	529,548,948	12.13%	1.62%	8,578,693	8,742,248	-
6/30/2015	549,407,034	12.13%	1.62%	8,900,394	8,299,611	-
6/30/2016	570,009,798	12.81%	1.63%	9,291,160	7,872,116	-
6/30/2017	591,385,165	12.81%	1.63%	9,639,578	7,446,908	-
6/30/2018	613,562,109	12.33%	1.15%	7,040,466	7,040,466	-
6/30/2019	636,570,688	12.22%	1.04%	6,638,375	6,638,375	-
6/30/2020	660,442,089	12.13%	0.95%	6,247,387	6,247,387	-
6/30/2021	685,208,667	12.04%	0.86%	5,865,075	5,865,075	-
6/30/2022	710,903,992	11.95%	0.77%	5,486,688	5,486,688	-
6/30/2023	737,562,892	11.87%	0.69%	5,116,513	5,116,513	-
6/30/2024	765,221,500	11.80%	0.62%	4,750,134	4,750,134	-
6/30/2025	793,917,306	11.73%	0.55%	4,388,335	4,388,335	-
6/30/2026	823,689,205	11.67%	0.49%	4,034,522	4,034,522	-
6/30/2027	854,577,550	11.61%	0.43%	3,686,909	3,686,909	-
6/30/2028	886,624,208	11.56%	0.38%	3,352,764	3,352,764	-
6/30/2029	919,872,616	11.51%	0.33%	3,033,273	3,033,273	-
6/30/2030	954,367,839	11.47%	0.29%	2,733,629	2,733,629	-
6/30/2031	990,156,633	11.43%	0.25%	2,443,239	2,443,239	-
6/30/2032	1,027,287,507	11.39%	0.21%	2,166,729	2,166,729	-
6/30/2033	1,065,810,789	11.36%	0.18%	1,912,227	1,912,227	-
6/30/2034	1,105,778,694	11.33%	0.15%	1,677,022	1,677,022	-
6/30/2035	1,147,245,395	11.31%	0.13%	1,460,600	1,460,600	-
6/30/2036	1,190,267,097	11.29%	0.11%	1,263,924	1,263,924	-



### **Political Subdivision Employees**

Valuation		]	Employer Contrib	Benefits	Solvency	
Year Ending	Pay	Rate Total	Rate Health	Dollars Health	Paid	Assets
6/30/2012	\$ 584,871,254					\$ 25,203,020
6/30/2013	606,803,926	8.80%	0.32%	\$ 1,941,773	\$6,844,941	22,063,088
6/30/2014	629,559,073	10.77%	0.33%	2,077,545	6,509,832	19,168,939
6/30/2015	653,167,538	10.77%	0.33%	2,155,453	6,222,098	16,430,304
6/30/2016	677,661,321	11.54%	0.36%	2,439,581	5,952,922	14,054,170
6/30/2017	703,073,621	11.54%	0.36%	2,531,065	5,715,875	11,835,147
6/30/2018	729,438,882	11.54%	0.36%	2,625,980	5,496,857	9,770,247
6/30/2019	756,792,840	11.54%	0.36%	2,724,454	5,285,470	7,867,185
6/30/2020	785,172,572	11.54%	0.36%	2,826,621	5,076,884	6,139,432
6/30/2021	814,616,543	11.54%	0.36%	2,932,620	4,860,420	4,612,736
6/30/2022	845,164,663	11.54%	0.36%	3,042,593	4,639,839	3,311,083
6/30/2023	876,858,338	11.54%	0.36%	3,156,690	4,415,039	2,260,582
6/30/2024	909,740,526	11.54%	0.36%	3,275,066	4,184,918	1,490,668
6/30/2025	943,855,796	11.54%	0.36%	3,397,881	3,949,151	1,033,563
6/30/2026	979,250,388	11.54%	0.36%	3,525,301	3,710,404	921,389
6/30/2027	1,015,972,278	11.52%	0.34%	3,468,573	3,468,573	992,797
6/30/2028	1,054,071,238	11.49%	0.31%	3,222,527	3,222,527	-
6/30/2029	1,093,598,909	11.45%	0.27%	2,975,393	2,975,393	-
6/30/2030	1,134,608,868	11.42%	0.24%	2,730,074	2,730,074	-
6/30/2031	1,177,156,701	11.39%	0.21%	2,489,894	2,489,894	-
6/30/2032	1,221,300,077	11.36%	0.18%	2,253,828	2,253,828	-
6/30/2033	1,267,098,830	11.34%	0.16%	2,024,795	2,024,795	-
6/30/2034	1,314,615,036	11.32%	0.14%	1,804,066	1,804,066	-
6/30/2035	1,363,913,100	11.30%	0.12%	1,593,457	1,593,457	-
6/30/2036	1,415,059,841	11.28%	0.10%	1,394,695	1,394,695	-

### **Teachers**

	Valuation	1	Employer Contrib	utions	Benefits	Solvency
Year Ending	Pay	Rate Total	Rate Health	<b>Dollars Health</b>	Paid	Assets
6/30/2012	\$1,036,604,873					\$ -
6/30/2013	1,075,477,556	11.30%	2.31%	\$ 24,843,532	\$24,105,753	-
6/30/2014	1,115,807,964	14.16%	2.20%	24,547,775	22,672,560	-
6/30/2015	1,157,650,763	14.16%	2.20%	25,468,317	21,446,425	-
6/30/2016	1,201,062,667	14.72%	1.96%	23,540,828	20,386,868	-
6/30/2017	1,246,102,517	14.72%	1.96%	24,423,609	19,395,709	-
6/30/2018	1,292,831,361	14.19%	1.43%	18,538,590	18,538,590	-
6/30/2019	1,341,312,537	14.09%	1.33%	17,829,062	17,829,062	-
6/30/2020	1,391,611,757	13.99%	1.23%	17,155,893	17,155,893	-
6/30/2021	1,443,797,198	13.90%	1.14%	16,497,402	16,497,402	-
6/30/2022	1,497,939,593	13.82%	1.06%	15,824,989	15,824,989	-
6/30/2023	1,554,112,328	13.73%	0.97%	15,131,714	15,131,714	-
6/30/2024	1,612,391,540	13.65%	0.89%	14,418,201	14,418,201	-
6/30/2025	1,672,856,223	13.58%	0.82%	13,684,786	13,684,786	-
6/30/2026	1,735,588,331	13.51%	0.75%	12,933,740	12,933,740	-
6/30/2027	1,800,672,893	13.44%	0.68%	12,167,914	12,167,914	-
6/30/2028	1,868,198,126	13.37%	0.61%	11,390,439	11,390,439	-
6/30/2029	1,938,255,556	13.31%	0.55%	10,603,851	10,603,851	-
6/30/2030	2,010,940,139	13.25%	0.49%	9,813,431	9,813,431	-
6/30/2031	2,086,350,394	13.19%	0.43%	9,025,392	9,025,392	-
6/30/2032	2,164,588,534	13.14%	0.38%	8,243,477	8,243,477	-
6/30/2033	2,245,760,604	13.09%	0.33%	7,473,172	7,473,172	-
6/30/2034	2,329,976,627	13.05%	0.29%	6,720,341	6,720,341	-
6/30/2035	2,417,350,751	13.01%	0.25%	5,991,048	5,991,048	-
6/30/2036	2,508,001,404	12.97%	0.21%	5,291,595	5,291,595	-



### **Police and Fire**

	Valuation		Employer Contribu	nployer Contributions		Solvency	
Year Ending	Pay	Rate Total	Rate Health	<b>Dollars Health</b>	Paid	Assets	
6/30/2012	\$ 374,321,190					\$ 8,703,969	
6/30/2013	388,358,235	N/A	3.97%	\$ 15,417,822	\$16,479,056	8,276,170	
6/30/2014	402,921,669	N/A	3.95%	15,915,406	17,205,964	7,577,006	
6/30/2015	418,031,232	N/A	3.95%	16,512,234	17,889,410	6,733,683	
6/30/2016	433,707,403	N/A	3.88%	16,827,847	18,502,175	5,516,336	
6/30/2017	449,971,431	N/A	3.88%	17,458,892	19,063,144	4,277,435	
6/30/2018	466,845,360	N/A	3.88%	18,113,600	19,544,595	3,122,491	
6/30/2019	484,352,061	N/A	3.88%	18,792,860	20,062,682	2,045,456	
6/30/2020	502,515,263	N/A	3.88%	19,497,592	20,562,868	1,097,424	
6/30/2021	521,359,585	N/A	3.88%	20,228,752	20,957,211	425,788	
6/30/2022	540,910,569	N/A	3.88%	20,987,330	21,191,830	246,362	
6/30/2023	561,194,715	N/A	3.79%	21,272,635	21,272,635	-	
6/30/2024	582,239,517	N/A	3.64%	21,188,620	21,188,620	-	
6/30/2025	604,073,499	N/A	3.47%	20,980,726	20,980,726	-	
6/30/2026	626,726,255	N/A	3.29%	20,636,709	20,636,709	-	
6/30/2027	650,228,490	N/A	3.11%	20,232,253	20,232,253	-	
6/30/2028	674,612,058	N/A	2.93%	19,757,253	19,757,253	-	
6/30/2029	699,910,010	N/A	2.74%	19,211,209	19,211,209	-	
6/30/2030	726,156,635	N/A	2.56%	18,603,260	18,603,260	-	
6/30/2031	753,387,509	N/A	2.38%	17,943,122	17,943,122	-	
6/30/2032	781,639,541	N/A	2.21%	17,235,331	17,235,331	-	
6/30/2033	810,951,024	N/A	2.04%	16,507,676	16,507,676	-	
6/30/2034	841,361,687	N/A	1.87%	15,749,383	15,749,383	-	
6/30/2035	872,912,750	N/A	1.72%	14,987,922	14,987,922	-	
6/30/2036	905,646,978	N/A	1.57%	14,219,910	14,219,910	-	

# SECTION E PARTICIPANT DATA

# Retirees and Beneficiaries Reconciliation (In Thousands)

							Average Annua	l			
	Add	Added to Rolls Removed from Rolls		Rolls	<b>Rolls End of Year</b>		% Increase	Average			
<b>Fiscal</b>		Annual				Annual		Annual		in Annual	Annual
<b>Year</b>	No.** Allowances* No.		No.	Al	Allowances No.		Allowances		Allowances	Allowances	
2005							18,950	\$	296,354		\$ 15,639
2007	3,211	\$	73,490	913	\$	12,081	21,248		357,763	9.87%	16,837
2008	2,216		53,600	594		10,923	22,870		400,440	3.99%	17,509
2009	2,152		51,234	521		8,349	24,501		443,325	3.34%	18,094
2010	2,161		50,732	817		12,002	25,845		482,055	3.08%	18,652
2011	1,965		42,344	680		10,051	27,130		514,348	1.65%	18,959
2012	2,073		41,213	749		11,543	28,454		544,018	0.84%	19,119

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

<sup>\*\*</sup> Includes beneficiaries in receipt but excludes deferred vested terminations.

## Retirees and Beneficiaries Age Distribution Employees

### SERVICE RETIREMENTS

Age		Males		Females					
Group	Number	Amount	Average	Number	Amount	Average			
40 - 44				2	\$ 24,024	\$ 12,012			
45 - 49	5	\$ 188,189	\$37,638	10	122,465	12,247			
50 - 54	60	1,055,918	17,599	93	1,151,601	12,383			
55 - 59	272	5,522,149	20,302	356	5,128,672	14,406			
60 - 64	1,036	20,756,645	20,035	1,370	19,421,483	14,176			
65 - 69	1,338	20,686,702	15,461	1,775	19,448,535	10,957			
70 - 74	936	12,906,131	13,789	1,235	11,970,667	9,693			
75 - 79	740	9,879,957	13,351	842	7,378,730	8,763			
80 - 84	498	6,297,027	12,645	563	4,615,553	8,198			
85 - 89	249	2,690,523	10,805	351	2,623,331	7,474			
90 - 94	86	789,021	9,175	131	818,637	6,249			
95 - 99	8	61,105	7,638	26	197,399	7,592			
100 & Over	4	27,965	6,991	5	27,854	5,571			
TOTAL	5,232	\$80,861,332	\$15,455	6,759	\$72,928,951	\$ 10,790			

### **DISABILITY RETIREMENTS**

Age		Males		Females				
Group	Number	Amount	Average	Number	Amount	Average		
30 - 34				1	\$ 13,478	\$13,478		
35 - 39	2	\$ 27,264	\$ 13,632	3	34,572	11,524		
40 - 44	9	121,542	13,505	9	104,525	11,614		
45 - 49	26	372,055	14,310	31	386,602	12,471		
50 - 54	50	711,256	14,225	53	593,497	11,198		
55 - 59	75	1,070,967	14,280	98	1,286,588	13,128		
60 - 64	100	1,332,386	13,324	113	1,329,912	11,769		
65 - 69	77	1,106,812	14,374	83	1,010,514	12,175		
70 - 74	45	563,381	12,520	45	583,314	12,963		
75 - 79	18	218,157	12,120	18	253,032	14,057		
80 - 84	6	92,950	15,492	8	80,859	10,107		
		*	*		,	*		
85 - 89	2	23,256	11,628	5	55,005	11,001		
90 - 94	1	12,162	12,162	2	34,042	17,021		
95 - 99								
100 & Over								
TOTAL	411	\$5,652,188	\$13,752	469	\$5,765,940	\$12,294		



## Retirees and Beneficiaries Age Distribution Employees

### BENEFICIARIES OF DECEASED MEMBERS

Age		Males		Females				
Group	Number	Amount	Average	Number	Amount	Average		
Under 20	1	\$1,774	\$1,774	3	\$ 8,613	\$ 2,871		
20 - 24	1	3,603	3,603	1	1,774	1,774		
25 - 29		0	0	1	5,913	5,913		
30 - 34	4	12,078	3,020	1	6,278	6,278		
35 - 39	2	16,636	8,318	2	16,114	8,057		
40 - 44	4	9,848	2,462	11	98,019	8,911		
45 - 49	7	36,179	5,168	15	100,525	6,702		
50 - 54	11	43,503	3,955	28	276,494	9,875		
55 - 59	23	112,939	4,910	45	524,398	11,653		
60 - 64	21	142,050	6,764	101	1,290,750	12,780		
65 - 69	18	131,723	7,318	117	1,479,655	12,647		
70 - 74	29	180,814	6,235	141	1,742,680	12,359		
75 - 79	25	215,604	8,624	202	2,312,079	11,446		
80 - 84	23	206,233	8,967	188	1,920,564	10,216		
85 - 89	17	118,462	6,968	145	1,256,829	8,668		
90 - 94	3	17,229	5,743	61	450,538	7,386		
95 - 99	1	1,584	1,584	14	66,360	4,740		
100 & Over		· 	•	4	39,769	9,942		
TOTAL	190	\$1,250,259	\$ 6,580	1,080	\$11,597,352	\$ 10,738		



## Retirees and Beneficiaries Age Distribution Teachers

### SERVICE RETIREMENTS

Age			Males		Females				
Group	Number		Amount	unt Average Number		Amount	Average		
45 - 49					4	\$ 39,587	\$9,897		
50 - 54	10	\$	127,080	\$12,708	38	448,333	11,798		
55 - 59	128		3,291,486	25,715	393	8,164,968	20,776		
60 - 64	728		19,319,593	26,538	1,890	43,892,578	23,224		
65 - 69	904		21,898,811	24,224	1,976	38,955,874	19,715		
70 - 74	447		10,563,540	23,632	928	17,872,201	19,259		
75 - 79	303		7,504,858	24,769	579	11,376,639	19,649		
80 - 84	167		3,953,248	23,672	337	6,147,774	18,243		
85 - 89	62		1,219,402	19,668	213	3,575,629	16,787		
90 - 94	22		355,332	16,151	124	1,670,458	13,471		
95 - 99	2		28,438	14,219	43	408,107	9,491		
100 & Over					12	106,642	8,887		
mom. r	2 ==2	Φ.	<0.0 <1.000	<b>***</b>	< <b>70</b> 5	<b>0.1.0.0 </b>	<b>\$20.204</b>		
TOTAL	2,773	\$	68,261,788	\$24,617	6,537	\$132,658,790	\$20,294		

#### **DISABILITY RETIREMENTS**

Age		Males		Females				
Group	Number	Amount	Average	Number	Amount	Average		
40 - 44				1	\$ 14,163	\$ 14,163		
45 - 49	1	\$ 30,115	\$30,115	3	33,691	11,230		
50 - 54	3	45,302	15,101	7	112,356	16,051		
55 - 59	3	47,602	15,867	26	475,264	18,279		
60 - 64	10	152,617	15,262	32	548,200	17,131		
65 - 69	8	175,760	21,970	26	419,040	16,117		
70 - 74	9	194,737	21,637	20	336,210	16,811		
75 - 79	5	111,432	22,286	5	76,380	15,276		
80 - 84	7	86,875	12,411	9	125,745	13,972		
85 - 89	3	38,161	12,720	6	70,357	11,726		
90 - 94				2	26,654	13,327		
95 - 99					ŕ	ŕ		
100 & Over								
TOTAL	49	\$882,601	\$18,012	137	\$2,238,060	\$ 16,336		

## Retirees and Beneficiaries Age Distribution Teachers

### BENEFICIARIES OF DECEASED MEMBERS

Age		Males		Females							
Group	Number		Amount		verage	Number		Amount		Average	
25 - 29	1	\$	4,741	\$	4,741	1	\$	13,182	\$	13,182	
		Ф	ŕ	Ф	*		Ф	ŕ	Ф		
30 - 34	1		3,246		3,246	1		4,741		4,741	
35 - 39	3		41,241		13,747	2		6,400		3,200	
40 - 44	1		7,599		7,599						
45 - 49	5		53,526		10,705	3		26,623		8,874	
50 - 54	7		57,457		8,208	8		101,969		12,746	
55 - 59	8		104,219		13,027	17		237,249		13,956	
60 - 64	18		309,069		17,171	43		745,571		17,339	
65 - 69	28		415,384		14,835	47		1,025,482		21,819	
70 - 74	21		318,234		15,154	60		1,261,670		21,028	
75 - 79	23		274,498		11,935	47		1,119,730		23,824	
80 - 84	14		281,555		20,111	45		1,047,615		23,280	
85 - 89	9		138,635		15,404	25		358,334		14,333	
90 - 94	1		9,111		9,111	18		206,607		11,478	
95 - 99						3		43,835		14,612	
100 & Over											
TOTAL	140		\$2,018,515		\$14,418	320		\$6,199,008		\$19,372	

# Retirees and Beneficiaries Age Distribution Police

### SERVICE RETIREMENTS

Age		Males		Females			
Group	Number	Amount	Average	Number	Amount	Average	
35 - 39				2 \$	38,868	\$ 19,434	
40 - 44				7	47,175	6,739	
45 - 49	197	\$ 10,029,687	\$50,912	33	766,713	23,234	
50 - 54	372	18,264,228	49,097	61	1,792,768	29,390	
55 - 59	366	17,239,379	47,102	64	1,573,729	24,590	
60 - 64	356	13,961,266	39,217	58	1,313,994	22,655	
65 - 69	303	10,356,540	34,180	48	683,008	14,229	
70 - 74	180	5,442,558	30,236	27	414,132	15,338	
75 - 79	107	2,776,414	25,948	20	312,516	15,626	
80 - 84	58	1,502,652	25,908	7	90,377	12,911	
85 - 89	12	383,346	31,946	3	54,511	18,170	
90 - 94	9	208,473	23,164	2	11,973	5,987	
95 - 99	2	32,774	16,387				
100 & Over	1	17,828	17,828				
TOTAL	1,963	\$80,215,145	\$40,864	332	\$7,099,764	\$21,385	

#### **DISABILITY RETIREMENTS**

Age		Males		Females			
Group	Number	Amount	Average	Number	Amount	nt Average	
30 - 34	3	\$ 92,551	\$ 30,850	2	\$ 61,242	\$30,621	
35 - 39	10	362,757	36,276	1	30,165	30,165	
40 - 44	17	674,722	39,690	3	84,680	28,227	
45 - 49	35	1,224,747	34,993	4	131,459	32,865	
50 - 54	42	1,418,326	33,770	8	239,006	29,876	
55 - 59	47	1,587,581	33,778	6	171,519	28,587	
60 - 64	55	1,705,623	31,011	12	332,187	27,682	
65 - 69	50	1,466,514	29,330	7	155,819	22,260	
70 - 74	21	558,350	26,588	1	13,172	13,172	
75 - 79	13	336,082	25,852	2	34,352	17,176	
80 - 84	8	200,365	25,046				
85 - 89	_						
90 - 94	3	53,854	17,951				
95 - 99							
100 & Over							
TOTAL	304	\$9,681,472	\$31,847	46	\$1,253,601	\$27,252	



# Retirees and Beneficiaries Age Distribution Police

### BENEFICIARIES OF DECEASED MEMBERS

Age		Males		Females			
Group	Number	Amount	Average	Number	Amount	Average	
Under 20	1	\$ 10,821	\$ 10,821	1	\$ 30,418	\$ 30,418	
20 - 24	1	10,821	10,821				
25 - 29							
30 - 34							
35 - 39							
40 - 44	1	3,991	3,991	5	81,410	16,282	
45 - 49	4	57,809	14,452	5	106,681	21,336	
50 - 54	3	24,693	8,231	6	145,838	24,306	
55 - 59	2	75,765	37,883	18	432,897	24,050	
60 - 64	6	80,905	13,484	26	575,480	22,134	
65 - 69				36	796,149	22,115	
70 - 74	3	16,367	5,456	51	651,014	12,765	
75 - 79	4	25,454	6,364	53	793,297	14,968	
80 - 84	2	27,080	13,540	51	638,966	12,529	
85 - 89	3	29,172	9,724	34	441,393	12,982	
90 - 94	1	19,838	19,838	11	124,395	11,309	
95 - 99	1	12,498	12,498	6	63,742	10,624	
100 & Over				1	6,198	6,198	
TOTAL	32	\$ 395,214	\$ 12,350	304	\$ 4,887,878	\$ 16,079	



## Retirees and Beneficiaries Age Distribution Fire

### SERVICE RETIREMENTS

Age		Males		Females			
Group	Number	Amount	Average	Number	Amount	Average	
35 - 39							
40 - 44				1	\$ 2,284	\$ 2,284	
45 - 49	62	\$ 3,056,101	\$49,292	9	166,895	18,544	
50 - 54	128	6,976,859	54,507	17	290,578	17,093	
55 - 59	227	10,997,537	48,447	21	334,075	15,908	
60 - 64	189	8,520,492	45,082	9	127,282	14,142	
65 - 69	139	5,235,578	37,666	10	174,569	17,457	
70 - 74	84	2,988,983	35,583	2	38,474	19,237	
75 - 79	59	1,700,989	28,830	2	13,874	6,937	
80 - 84	37	997,900	26,970	1	25,849	25,849	
85 - 89	23	634,382	27,582				
90 - 94	6	125,679	20,947				
95 - 99							
100 & Over							
TOTAL	954	\$41,234,500	\$43,223	72	\$1,173,880	\$16,304	

#### **DISABILITY RETIREMENTS**

Age		Males		Females			
Group	Number	Amount	Average	Number	Amount	Average	
35 - 39	2	\$ 42,453	\$21,227				
40 - 44	3	127,810	42,603				
45 - 49	10	362,880	36,288	1	\$31,795	\$31,795	
50 - 54	12	413,136	34,428	1	40,899	40,899	
55 - 59	17	560,243	32,955	1	26,454	26,454	
60 - 64	18	530,507	29,473				
65 - 69	14	372,877	26,634				
70 - 74	22	581,463	26,430				
75 - 79	14	404,760	28,911				
80 - 84	6	154,636	25,773				
85 - 89	2	53,037	26,519				
90 - 94	3	43,646	14,549				
95 - 99							
100 & Over							
TOTAL	123	\$3,647,448	\$29,654	3	\$99,148	\$33,049	

# Retirees and Beneficiaries Age Distribution Fire

### BENEFICIARIES OF DECEASED MEMBERS

Age		Males		Females			
Group	Number	Amount	Average	Number	Amount	Average	
Under 20	1	\$ 5,913	\$ 5,913				
20 - 24	1	5,913	5,913				
25 - 29	-	2,512	3,515				
30 - 34							
35 - 39							
40 - 44	4	44,026	11,007	1	\$ 44,756	\$ 44,756	
45 - 49		,	,	3	42,360	14,120	
50 - 54	1	2,810	2,810	6	92,878	15,480	
55 - 59	1	2,783	2,783	17	339,611	19,977	
60 - 64				13	228,337	17,564	
65 - 69				27	636,230	23,564	
70 - 74				26	451,213	17,354	
75 - 79	1	15,853	15,853	29	599,916	20,687	
80 - 84				41	694,086	16,929	
85 - 89	3	58,825	19,608	33	507,982	15,393	
90 - 94		,	,	15	227,818	15,188	
95 - 99					,	,	
100 & Over				1	13,733	13,733	
TOTAL	12	\$136,123	\$11,344	212	\$3,878,920	\$18,297	



## Active Members by Valuation Division

Valuation	Active	Valuation		Average	
Group	Members	Payroll	Age	Service	Pay
Employees:					
Male	9,521	\$ 468,210,653	49.0	11.5	\$49,177
Female	15,226	608,620,721	49.1	10.7	39,972
Total	24,747	1,076,831,374	49.1	11.0	43,514
Teachers:					
Male	4,039	244,548,000	45.8	13.5	60,547
Female	14,122	792,056,873	46.3	12.9	56,087
Total	18,161	1,036,604,873	46.2	13.1	57,079
Police:					
Male	3,597	232,758,871	39.4	11.2	64,709
Female	521	29,106,045	39.2	9.1	55,866
Total	4,118	261,864,916	39.3	10.9	63,590
Fire:					
Male	1,551	109,598,072	41.0	12.9	70,663
Female	48	2,858,202	39.8	10.1	59,546
Total	1,599	112,456,274	41.0	12.8	70,329
Total:					
Male	18,708	1,055,115,596	45.8	12.0	56,399
Female	29,917	1,432,641,841	47.6	11.7	47,887
Grand Total	48,625	\$2,487,757,437	46.9	11.8	\$51,162

Valuation	Active	Valuation		
Group	Members	Payroll		
Employees:				
State	10,063	\$ 491,960,120		
Political Subdivisions	14,684	584,871,254		
Subtotal	24,747	1,076,831,374		
Teachers:	18,161	1,036,604,873		
Police:				
State	1,071	67,895,748		
Political Subdivisions	3,047	193,969,168		
Subtotal	4,118	261,864,916		
Fire:				
State	69	3,871,325		
Political Subdivisions	1,530	108,584,949		
Subtotal	1,599	112,456,274		
Total	48,625	\$ 2,487,757,437		



### Age and Service Distribution

Employees June 30, 2012

								Totals		
Attained _		Years	of Serv	rice to V	aluation	Date			Valuation	
Age	0-4	5-9	10-14	15-19	20-24	25-29	30 Plus	No	Payroll	
15-19	7							7	\$ 164,677	
20-24	405	8						413	11,503,716	
25-29	916	309	8					1,233	40,222,066	
30-34	725	593	193					1,511	59,333,756	
35-39	639	547	397	78	5			1,666	70,177,384	
40-44	883	748	594	311	151	14		2,701	118,347,440	
45-49	1,020	960	726	417	402	195	23	3,743	165,665,892	
50-54	1,072	1,151	971	516	428	287	208	4,633	204,623,118	
55-59	793	1,045	966	634	533	322	376	4,669	214,667,092	
60-64	470	706	629	411	364	206	226	3,012	140,712,909	
65-69	105	245	234	112	93	69	75	933	42,745,587	
70+	25	58	67	31	22	8	15	226	8,667,737	
TOTAL	7,060	6,370	4,785	2,510	1,998	1,101	923	24,747	\$1,076,831,374	

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

Age: 49.1 years Service: 11.0 years Annual Pay: \$43,514

## Age and Service Distribution

Teachers June 30, 2012

								Totals		
<b>Attained</b>		Years	of Serv	rice to V	aluation	Date			Valuation	
Age	0-4	5-9	10-14	15-19	20-24	25-29	30 Plus	No	Payroll	
20-24	127							127	\$ 4,375,160	
25-29	1,147	278						1,425	57,021,636	
30-34	671	1,273	213	1				2,158	101,154,020	
35-39	407	677	882	106				2,072	111,298,552	
40-44	427	547	673	524	60			2,231	127,749,410	
45-49	345	540	507	354	374	110	6	2,236	132,263,145	
50-54	250	519	590	385	321	457	109	2,631	159,720,033	
55-59	143	357	569	461	395	388	535	2,848	181,757,370	
60-64	95	193	310	367	317	263	446	1,991	131,586,945	
65-69	15	53	63	71	69	51	80	402	27,027,331	
70+	6	6	6	5	5	2	10	40	2,651,271	
TOTAL	3,633	4,443	3,813	2,274	1,541	1,271	1,186	18,161	\$1,036,604,873	

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

Age: 46.2 years Service: 13.1 years Annual Pay: \$57,079

## Age and Service Distribution

Police June 30, 2012

							Totals		
<b>Attained</b>		Years	of Serv	rice to V	aluation	Date			Valuation
Age	0-4	5-9	10-14	15-19	20-24	25-29	30 Plus	No	Payroll
20-24	166							166	\$ 6,334,147
25-29	429	143						572	29,884,561
30-34	183	347	124	3				657	40,332,411
35-39	99	197	309	101	6			712	47,111,326
40-44	80	129	214	287	98	5		813	55,551,600
45-49	64	72	119	117	160	67	4	603	42,788,302
50-54	24	46	53	60	59	49	20	311	21,925,238
55-59	18	32	44	32	33	11	14	184	11,707,734
60-64	6	15	16	17	16	6	5	81	4,994,924
65-69	2		6	4	1	2	3	18	1,157,461
70+					1			1	77,212
TOTAL	1,071	981	885	621	374	140	46	4,118	\$261,864,916

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

Age: 39.3 years Service: 10.9 years Annual Pay: \$63,590

### Age and Service Distribution

Fire June 30, 2012

									Totals
Attained		Years	of Serv	vice to V	aluation	Date			Valuation
Age	0-4	5-9	10-14	15-19	20-24	25-29	30 Plus	No	Payroll
20-24	42							42	\$ 2,069,616
25-29	100	65						165	9,108,613
30-34	54	108	48	1				211	13,318,703
35-39	27	78	108	24	1			238	15,763,581
40-44	27	82	115	81	48	2		355	25,539,839
45-49	12	39	64	53	88	52	1	309	23,663,328
50-54	8	21	26	25	37	46	17	180	14,634,539
55-59	2	4	17	8	12	18	10	71	5,933,551
60-64	5	2	1	3		5	10	26	2,245,456
65-69						1		1	74,717
70+							1	1	104,331
TOTAL	277	399	379	195	186	124	39	1,599	\$ 112,456,274

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

Age: 41.0 years Service: 12.8 years Annual Pay: \$70,329

### Age and Service Distribution

Total June 30, 2012

							_		Totals				
Attained		Years	of Serv	ice to V	aluation	Date			Valuation				
Age	0-4	5-9	10-14	15-19	20-24	25-29	30 Plus	No	Payroll				
15-19	7							7	\$ 164,677				
20-24	740	8						748	24,282,639				
25-29	2,592	795	8					3,395	136,236,876				
30-34	1,633	2,321	578	5				4,537	214,138,890				
35-39	1,172	1,499	1,696	309	12			4,688	244,350,843				
40-44	1,417	1,506	1,596	1,203	357	21		6,100	327,188,289				
45-49	1,441	1,611	1,416	941	1,024	424	34	6,891	364,380,667				
50-54	1,354	1,737	1,640	986	845	839	354	7,755	400,902,928				
55-59	956	1,438	1,596	1,135	973	739	935	7,772	414,065,747				
60-64	576	916	956	798	697	480	687	5,110	279,540,234				
65-69	122	298	303	187	163	123	158	1,354	71,005,096				
70+	31	64	73	36	28	10	26	268	11,500,551				
TOTAL	12,041	12,193	9,862	5,600	4,099	2,636	2,194	48,625 \$2,487,757,437					

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

Age: 46.9 years Service: 11.8 years Annual Pay: \$51,162

### Historical Summary of Active Member Data

#### Total

<b>Valuation</b>	Active M	<u>lembers</u>	Covered Pag	yroll	Average	Salary	Av	erage
Date	No.	% Inc.*	\$ Amount	% Inc.*	\$ Amount	% Inc.*	Age	Service
2005	51,060	N/A	\$2,043,568,262	N/A	\$ 40,023	N/A	45.2	9.9
2007	50,802	(0.3%)	2,195,339,382	3.6%	43,214	3.9%	45.6	10.6
2008	50,988	0.2%	2,308,320,669	5.1%	45,272	4.8%	45.7	10.6
2009	51,032	0.0%	2,448,287,042	6.1%	47,976	6.0%	46.0	10.9
2010	50,467	(0.6%)	2,481,383,620	1.4%	49,168	2.5%	46.3	11.1
2011	49,738	(0.7%)	2,517,779,470	1.5%	50,621	3.0%	46.6	11.4
2012	48,625	(1.1%)	2,487,757,437	(1.2%)	51,162	1.1%	46.9	11.8

<sup>\*</sup> Average annual increase.

## By Valuation Group (Valuation Payroll in Thousands)

	<b>Fiscal</b>	Active	Valuation	Average	
	Year	Members#	Payroll	Compensation	% Inc.*
Employees	2012	24,747	\$1,076,831	\$43,514	3.44 %
Teachers		18,161	1,036,605	57,079	4.03 %
Police		4,118	261,865	63,590	4.09 %
Fire		1,599	112,456	70,329	6.18 %
Total		48,625	\$2,487,757	\$51,162	4.05 %

	<b>Fiscal</b>	Active	Valuation	Average	
	Year	Members#	Payroll	Compensation	% Inc.*
Employees	2011	25,539	\$1,113,867	\$43,614	3.68 %
Teachers		18,466	1,036,376	56,123	2.28 %
Police		4,130	259,509	62,835	2.86 %
Fire		1,603	108,028	67,391	1.75 %
Total		49,738	\$2,517,780	\$50,621	2.95 %

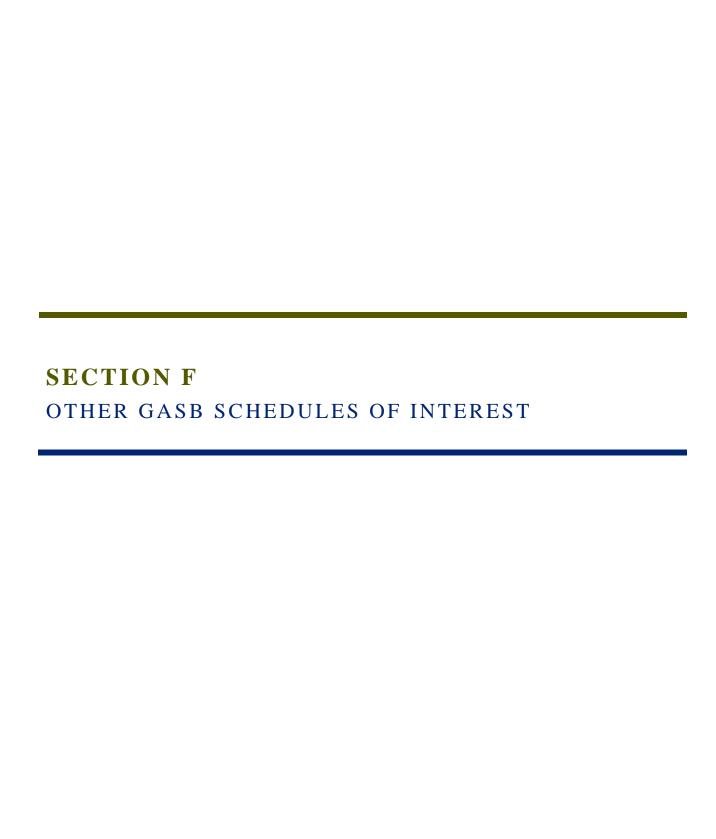
<sup>#</sup> Excludes temporary inactive members.

 $<sup>*\</sup> Average\ annual\ increase.$ 

## Summary of Membership Data by Category

	 Jur	ne 30	
	 2012		2011
Active Members			
Number	48,625		49,738
Average age (years)	46.9		46.6
Average service (years)	11.8		11.4
Average salary	\$ 51,162	\$	50,621
Total payroll supplied, annualized	\$ 2,487,757,437	\$	2,517,779,470
Vested Inactive Members			
Number	1,372		1,496
Average age (years)	52		52
Non-Vested Inactive Members			
Number	7,041		5,677
Service Retirees			
Number	24,622		23,390
Average age (years)	69		69
Total annual benefits	\$ 484,434,150	\$	457,444,791
Average annual benefit	\$ 19,675	\$	19,557
Disability Retirees			
Number	1,542		1,511
Average age (years)	62		62
Total annual benefits	\$ 29,220,458	\$	27,994,176
Average annual benefit	\$ 18,950	\$	18,527
Beneficiaries			
Number	2,290		2,229
Average age (years)	73		73
Total annual benefits	\$ 30,363,269	\$	28,908,530
Average annual benefit	\$ 13,259	\$	12,969
Total Covered Lives	85,492		84,041





#### Other Schedules of Interest Distribution of Retirees by Years of Service

#### **Employees**

Service	(	0 - 4 <u>yrs.*</u>		<u>5 - 9 yrs.</u>	<u> 10 - 14 yrs.</u>	15 - 19 <u>yrs.</u>	<u>20 - 24 yrs.</u>	25 - 29 <u>yrs.</u>	30	or more yrs.	<u>Total</u>
Total annual benefit	\$	4,080,847	\$ -	\$ 6,672,290	\$ 24,264,666	\$ 23,158,718	\$ 32,072,875	\$ 24,371,333	\$	63,435,293	\$ 178,056,022
Average annual benefit	\$	4,114	\$ -	\$ 4,804	\$ 6,911	\$ 10,243	\$ 13,706	\$ 18,421	\$	27,284	\$ 12,591
Average monthly benefit	\$	343	\$ -	\$ 400	\$ 576	\$ 854	\$ 1,142	\$ 1,535	\$	2,274	\$ 1,049
Average final average salary	\$	34,356	\$ -	\$ 38,505	\$ 39,797	\$ 44,567	\$ 46,998	\$ 52,948	\$	62,444	\$ 47,037
Number of retired members		992	*	1,389	3,511	2,261	2,340	1,323		2,325	14,141 **

<sup>\*</sup> Includes 194 members who did not have service reported.

#### Teachers

Service	9	0 - 4 yrs.*		<u>5 - 9 yrs.</u>	10 - 14 yrs.	-	15 - 19 yrs.	<u>20 - 24 yrs.</u>	25 - 29 yrs.	3	0 or more yrs.	<u>Total</u>
Total annual benefit	\$	1,077,097	\$ -	\$ 1,390,521	\$ 9,774,381	\$	13,720,049	\$ 33,875,269	\$ 37,929,112	\$	114,492,333	\$ 212,258,762
Average annual benefit	\$	5,203	\$ -	\$ 5,892	\$ 8,214	\$	12,473	\$ 17,363	\$ 22,272	\$	32,080	\$ 21,320
Average monthly benefit	\$	434	\$ -	\$ 491	\$ 684	\$	1,039	\$ 1,447	\$ 1,856	\$	2,673	\$ 1,777
Average final average salary	\$	51,428	\$ -	\$ 53,206	\$ 46,917	\$	54,779	\$ 59,762	\$ 64,214	\$	70,113	\$ 62,128
Number of retired members		207	*	236	1,190		1,100	1,951	1,703		3,569	9,956 **

<sup>\*</sup> Includes 88 members who did not have service reported.

#### Police

Service	<u>(</u>	0 - 4 yrs.*			<u>5 - 9 yrs.</u>	<u>10 - 14 yrs.</u>	_	15 - 19 yrs.	<u>20 - 24 yrs.</u>	25 - 29 yrs.	30	or more yrs.	<u>Total</u>
Total annual benefit	\$	2,816,829	\$ -	- \$	2,562,110	\$ 5,927,393	\$	6,430,516	\$ 44,213,041	\$ 27,800,617	\$	13,782,568	\$ 103,533,074
Average annual benefit	\$	11,835	\$ -	- \$	16,968	\$ 18,238	\$	25,218	\$ 35,230	\$ 50,824	\$	65,631	\$ 34,731
Average monthly benefit	\$	986	\$ -	- \$	1,414	\$ 1,520	\$	2,101	\$ 2,936	\$ 4,235	\$	5,469	\$ 2,894
Average final average salary	\$	43,717	\$ -	- \$	51,792	\$ 48,430	\$	59,074	\$ 75,343	\$ 89,117	\$	98,085	\$ 76,294
Number of retired members		238	*		151	325		255	1,255	547		210	2,981 **

<sup>\*</sup> Includes 145 members who did not have service reported.

#### Fire

Service	<u>(</u>	) - 4 yrs.*		<u>5 - 9 yrs.</u>	<u>10 - 14 yrs.</u>	15 - 19 yrs.	<u>20 - 24 yrs.</u>	25 - 29 yrs.	30	or more yrs.	<u>Total</u>
Total annual benefit	\$	1,223,056	\$ -	\$ 530,116	\$ 1,592,467	\$ 2,735,098	\$ 18,085,604	\$ 16,283,883	\$	9,719,795	\$ 50,170,019
Average annual benefit	\$	12,740	\$ -	\$ 18,280	\$ 20,416	\$ 24,865	\$ 32,067	\$ 47,475	\$	62,306	\$ 36,461
Average monthly benefit	\$	1,062	\$ -	\$ 1,523	\$ 1,701	\$ 2,072	\$ 2,672	\$ 3,956	\$	5,192	\$ 3,038
Average final average salary	\$	50,146	\$ -	\$ 51,114	\$ 53,705	\$ 64,002	\$ 74,611	\$ 88,513	\$	92,039	\$ 80,981
Number of retired members		96	*	29	78	110	564	343		156	1,376 **

<sup>\*</sup> Includes 77 members who did not have service reported.

<sup>\*\*</sup> Includes 931 members who did not have FAS reported.



<sup>\*\*</sup> Includes 7,748 members who did not have FAS reported.

<sup>\*\*</sup> Includes 5,098 members who did not have FAS reported.

<sup>\*\*</sup> Includes 1,766 members who did not have FAS reported.

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

**Employees** 

								June	30, 2012										
			Ty	pe of R	Retirei	nent*	*						Option	Selected	l #				
Amount of	Number of								No										
Monthly Benefit	Retirees*	1	2	3	4	5	6	7	Option	1	2	3	4	5	6	7	8	9	Other&
\$1 - \$500	4,433	3,611	43	2	6	-	522	249	2,597	198	305	75	811	182	12	4	-	-	249
501 - 1,000	4,385	3,259	260	132	7	2	373	352	2,399	131	279	90	842	278	10	4	-	-	352
1,001 - 1,500	2,534	1,999	74	223	6	4	139	89	1,292	91	212	79	551	216	3	1	-	-	89
1,501 - 2,000	1,405	1,194	20	82	4	2	82	21	650	43	130	60	375	120	3	3	-	-	21
2,001 - 2,500	844	759	4	22	-	2	52	5	338	16	83	39	285	76	1	1	-	-	5
2,501 - 3,000	509	456	3	9	1	1	35	4	196	14	64	21	144	66	-	-	-	-	4
3,001 - 3,500	302	282	-	2	-	-	17	1	107	5	43	14	97	35	-	-	-	-	1
3,501 - 4,000	219	206	1	1	-	-	11	-	73	3	30	16	67	29	1	-	-	-	-
Over 4,000	231	225	1	1	1	-	3	-	56	4	37	24	78	30	1	1	-	-	_
Totals	14,862	11,991	406	474	25	11	1,234	721	7,708	505	1,183	418	3,250	1,032	31	14	-	-	721

**Teachers** 

	June 30, 2012																		
			Тур	e of R	Retirei	nent**	:						Option S	Selected	l #				
Amount of	Number of								No										
<b>Monthly Benefit</b>	Retirees*	1	2	3	4	5	6	7	Option	1	2	3	4	5	6	7	8	9	Other&
\$1 - \$500	1,227	1,006	-	-	-	-	62	159	561	42	73	24	278	79	6	5	-	-	159
501 - 1,000	1,758	1,307	49	-	1	-	104	297	872	102	81	26	305	69	5	1	-	-	297
1,001 - 1,500	1,524	1,258	67	5	4	-	88	102	740	62	105	42	362	108	3	-	-	-	102
1,501 - 2,000	1,532	1,408	25	5	4	1	64	25	673	56	121	43	453	154	1	6	-	-	25
2,001 - 2,500	1,516	1,434	15	8	-	1	55	3	650	40	112	58	469	179	2	3	-	-	3
2,501 - 3,000	1,246	1,205	8	1	2	-	29	1	506	42	113	45	380	153	1	5	-	-	1
3,001 - 3,500	949	921	2	1	-	-	24	1	405	25	82	34	300	97	1	4	-	-	1
3,501 - 4,000	469	455	-	-	2	-	12	-	188	18	45	17	136	65	-	-	-	-	-
Over 4,000	323	316	-	-	-	-	7	-	133	7	34	10	99	40	-	-	-	-	_
Totals	10,544	9,310	166	20	13	2	445	588	4,728	394	766	299	2,782	944	19	24	-	-	588

See Page 72 for footnotes.

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

**Police** 

								Ju	ne 30, 20	12									
			Ty	pe of l	Retire	ment*	*						Optio	n Select	ted#				
Amount of	Number of								No										
<b>Monthly Benefit</b>	Retirants*	1	2	3	4	5	6	7	Option	1	2	3	4	5	6	7	8	9	Other&
\$1 - \$500	148	113	1	-	-	2	32	-	99	1	6	16	6	20	-	-	-		
501 - 1,000	287	151	6	-	-	1	116	13	209	5	12	12	15	21	-	-	-		- 13
1,001 - 1,500	301	156	22	10	-	2	84	27	184	14	13	11	13	39	-	-	-		- 27
1,501 - 2,000	279	176	20	34	1	1	40	7	159	16	8	21	15	52	1	-	-		- 7
2,001 - 2,500	347	253	8	67	-	1	13	5	168	18	12	47	19	78	-	-	-		- 5
2,501 - 3,000	365	264	-	81	-	2	17	1	145	22	10	61	19	107	-	-	-		. 1
3,001 - 3,500	306	255	-	41	1	3	5	1	108	14	3	81	8	91	-	-	-		. 1
3,501 - 4,000	246	218	-	20	-	-	8	-	83	8	2	55	8	90	-	-	-		
Over 4,000	756	709	-	40	-	1	6	-	186	18	8	235	12	296	1	-	-		
Totals	3,035	2,295	57	293	2	13	321	54	1,341	116	74	539	115	794	2	-	-		- 54

Fire

	June 30, 2012																		
			Ty	pe of l	Retire	ment*	*						Optio	n Select	ed#				
Amount of	Number of								No										
<b>Monthly Benefit</b>	Retirants*	1	2	3	4	5	6	7	Option	1	2	3	4	5	6	7	8	9	Other&
\$1 - \$500	40	24	-	1	-	2	13	-	29	-	2	-	2	7	-	-	-	-	
501 - 1,000	92	31	1	-	-	-	60	-	82	-	2	1	1	6	-	-	-	-	
1,001 - 1,500	141	60	7	8	-	5	60	1	107	7	8	6	7	5	-	-	-	-	. 1
1,501 - 2,000	116	62	8	14	-	2	25	5	69	10	5	10	8	9	-	-	-	-	. 5
2,001 - 2,500	178	119	2	24	1	3	28	1	95	14	8	24	7	29	-	-	-	-	. 1
2,501 - 3,000	163	126	2	26	-	-	8	1	60	8	5	27	12	50	-	-	-	-	. 1
3,001 - 3,500	146	127	1	15	-	1	2	-	38	7	3	35	2	61	-	-	-	-	
3,501 - 4,000	129	119	-	7	-	1	1	1	38	6	1	27	2	54	-	-	-	-	. 1
Over 4,000	380	358	-	10	1	-	11	-	100	13	2	92	4	167	1	1	-	_	
Totals	1,385	1,026	21	105	2	14	208	9	618	65	36	222	45	388	1	1	-	-	. 9

See Page 72 for footnotes.

**Type of	Retirement
-----------	------------

1-Service & early retirement No experiment 2-Ordinary disability retirement Opt 3-Accidental disability retirement Opt

4-Ordinary death in active service

5-Accidental death in active service

6-Beneficiaries of deceased members who retired on a service or disability allowance

7-Vested member with future benefit

#Option Selected

No option - Straight life Option 1 - Cash refund

Option 2 - 100% Joint & Survivorship Option 3 - 50% Joint & Survivorship

Option 4 - 100% Pop-Up Option 5 - 50% Pop-Up

Option 6 - Other % Joint & Survivorship

Option 7 - Other % Pop-Up

Option 8 - Fixed amount to Beneficiaries

Option 9 - Widow's benefit (accidental disability) 50%

<sup>\*</sup> Excluding Vested members with a future benefit.

<sup>&</sup>amp; Elections for Vested members are made at the time of commencement.

# Other Schedules of Interest Distribution of Retirees by Years of Service Medical Benefits

~		
State	Emn	ovees

			State	Emproyees				
Service	0-4  yrs.*	<u>5 - 9 yrs.</u>	<u>10 - 14 yrs.</u>	<u>15 - 19 yrs.</u>	<u>20 - 24 yrs.</u>	25 - 29 yrs.	30 or more yrs.	<u>Total</u>
Average annual benefit	\$ 4,809	\$ 5,333	\$ 5,031	\$ 4,782	\$ 4,320	\$ 4,428	\$ 4,745	\$ 4,612
Average monthly benefit	\$ 401	\$ 444	\$ 419	\$ 398	\$ 360	\$ 369	\$ 395	\$ 384
Annual Benefits	\$649,228	\$367,976	\$437,722	\$205,609	\$2,349,911	\$1,642,715	\$3,805,681	\$9,458,842
Number of retired members	135	69	87	43	544	371	802	2,051
* Includes 60 members who d	id not have serv	ice reported.						
			Political Subd	livision Employ	ees			
Service	<u>0 - 4 yrs.*</u>	<u>5 - 9 yrs.</u>	<u> 10 - 14 yrs.</u>	<u>15 - 19 yrs.</u>	<u>20 - 24 yrs.</u>	<u>25 - 29 yrs.</u>	30 or more yrs.	<u>Total</u>
Average annual benefit	\$ 3,862	\$ 4,095	\$ 4,586	\$ 4,312	\$ 4,834	\$ 4,782	\$ 5,632	\$ 5,024

Average annual benefit	\$ 3,862	\$ 4,095	\$ 4,586	\$ 4,312	\$ 4,834	\$ 4,782	\$ 5,632	\$ 5,024
Average monthly benefit	\$ 322	\$ 341	\$ 382	\$ 359	\$ 403	\$ 398	\$ 469	\$ 419
Annual Benefits	\$65,652	\$32,763	\$59,623	\$21,559	\$3,137,104	\$1,534,994	\$2,196,314	\$7,048,009
Number of retired members	17	8	13	5	649	321	390	1,403

<sup>\*</sup> Includes 7 members who did not have service reported.

#### Teachers

Service	0 - 4 yrs.*	<u>5 - 9 yrs.</u>	<u>10 - 14 yrs.</u>	<u>15 - 19 yrs.</u>	<u>20 - 24 yrs.</u>	25 - 29 yrs.	30 or more yrs.	<u>Total</u>
Average annual benefit	\$ 3,431	\$3,675	\$ 5,806	\$5,684	\$ 4,984	\$ 5,050	\$ 6,064	\$ 5,590
Average monthly benefit	\$ 286	\$ 306	\$ 484	\$ 474	\$ 415	\$ 421	\$ 505	\$ 466
Annual Benefits	\$37,741	\$7,349	\$23,224	\$5,684	\$5,028,708	\$4,888,880	\$14,831,920	\$24,823,506
Number of retired members	11	2	4	1	1,009	968	2,446	4,441

<sup>\*</sup> Includes 8 members who did not have service reported.

#### Police and Fire

Service	<u>0 - 4 yrs.*</u>	<u>5 - 9 yrs.</u>	<u> 10 - 14 yrs.</u>	<u>15 - 19 yrs.</u>	<u>20 - 24 yrs.</u>	<u>25 - 29 yrs.</u>	30 or more yrs.	<u>Total</u>
Average annual benefit	\$ 5,032	\$ 5,515	\$ 5,621	\$ 5,390	\$ 6,391	\$ 6,691	\$ 6,436	\$ 6,280
Average monthly benefit	\$ 419	\$ 460	\$ 468	\$ 449	\$ 533	\$ 558	\$ 536	\$ 523
Annual Benefits	\$322,069	\$496,368	\$989,289	\$948,587	\$7,617,692	\$4,041,300	\$1,698,972	\$16,114,277
Number of retired members	64	90	176	176	1,192	604	264	2,566

<sup>\*</sup> Includes 19 members who did not have service reported.



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

**State Employees** 

	June 30, 2012											
Monthly	No. of	1 Pe	rson	2 Pe	rson							
Benefit	Retirees	Pre-65	Post-65	Pre-65	Post-65							
\$1-\$500	1,776	100	1,647	2	27							
501-1,000	270	53	104	82	31							
1,001-1,500	4	2	1	0	1							
1,501-2,000	1	0	0	1	0							
Over 2,000	0	0	0	0	0							
Total	2,051	155	1,752	85	59							

**Political Subdivision Employees** 

	June 30, 2012											
Monthly	No. of	1 Pe	rson	2 Pe	rson							
Benefit	Retirees	Pre-65	Post-65	Pre-65	Post-65							
\$1-\$500	1,152	131	1,017	0	4							
501-1,000	235	89	78	49	19							
1,001-1,500	12	1	3	4	4							
1,501-2,000	4	2	0	2	0							
Over 2,000	0	0	0	0	0							
Total	1,403	223	1,098	55	27							

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

#### **Teachers**

June 30, 2012												
Monthly	No. of	1 Pe	rson	2 Pe	rson							
Benefit	Retirees	Pre-65	Post-65	Pre-65	Post-65							
\$1-\$500	3,266	450	2,780	2	34							
501-1,000	1,027	333	248	240	206							
1,001-1,500	103	30	13	29	31							
1,501-2,000	45	12	0	33	0							
Over 2,000	0	0	0	0	0							
Total	4,441	825	3,041	304	271							

#### **Police and Fire**

June 30, 2012					
Monthly	No. of	1 Pe	rson	2 Pe	erson
Benefit	Retirees	Pre-65	Post-65	Pre-65	Post-65
\$1-\$500	1,423	419	980	18	6
501-1,000	1,116	192	173	736	15
1,001-1,500	25	5	1	13	6
1,501-2,000	2	0	0	2	0
Over 2,000	0	0	0	0	0
Total	2,566	616	1,154	769	27



#### Valuation Methods

#### Pension

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

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

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

*Financing of Unfunded Actuarial Accrued Liabilities* - Unfunded Actuarial Accrued Liabilities were amortized by level (principal & interest combined) percent-of-payroll contributions over 24 years from the contribution effective date (Fiscal Year 2016).

#### **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).



#### Valuation Methods

Actuarial Value of Assets - The Actuarial Value of Assets recognizes assumed investment return fully each year. Differences between actual and assumed investment income 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. Funding Value is limited to a 20% corridor around the Market Value.

The actuarial value of assets, net of the Reserve for TSAs, was allocated to the pension and medical subsidy plans based on the market value of those plans, net of the special account. 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, net of the Reserve for TSAs.

For purposes of determining the solvency rate, the market value of assets was used for all group funds due to the short time horizon before these closed group funds become pay-as-you-go with a declining annual obligation.

#### **Development of Amortization Payment**

The employer contribution rate determined by this 2012 valuation is illustrative for the 2016-17 biennium. The unfunded actuarial accrued liability (UAAL) was determined using the funding 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 24-year period beginning on July 1, 2016. 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 calculated in the June 30, 2011 valuation effective from July 1, 2013 to June 30, 2015 would be contributed to the net pension assets. Actual contribution rates for the 2016-17 biennium will be based on the June 30, 2013 valuation.



The actuarial assumptions used in the valuation are shown in this Section.

#### **Economic Assumptions**

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

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

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

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

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

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

### **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

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

Ref: 3 - -4.50%

## Employees (Continued)

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

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

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

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

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

## Employees (Continued)

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

#### **Probability of Occurrence Next**

	Year						
Sample	Death Before Retirement					nt	
Ages		Men Wom				n	
20		0.00%			0.01%		
25		0.04%			0.02%		
30		0.04%			0.02%		
35		0.05%			0.03%		
40		0.08% 0.04%					
45		0.12% 0.06%					
50	0.18% 0.08%						
55		0.25%			0.13%		
Ref	124	X	1.00	92	X	0.40	
	10			2			

## 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

% of Active Members Retiring Within Next Year

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

## 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	Ma	Male Female		
Ages	Normal	Early	Normal	Early
60		12.0%		12.0%
61		12.0%		12.0%
62		17.0%		15.0%
63		16.0%		15.0%
64		15.0%		15.0%
65	46.0%		45.0%	
66	46.0%		45.0%	
67	20.0%		20.0%	
68	20.0%		16.0%	
69	20.0%		17.0%	
70	100.0%		100.0%	

## Employees (Concluded)

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

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

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

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

#### **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

	ror an individual Member				
Service	Merit &	Base	Increase		
Index	Seniority	(Economy)	Next Year		
1	6.00%	3.75%	9.75%		
2	4.00%	3.75%	7.75%		
3	3.00%	3.75%	6.75%		
4	2.50%	3.75%	6.25%		
5	2.50%	3.75%	6.25%		
6	2.20%	3.75%	5.95%		
7	1.70%	3.75%	5.45%		
8	1.40%	3.75%	5.15%		
9	1.20%	3.75%	4.95%		
10	1.20%	3.75%	4.95%		
11	1.00%	3.75%	4.75%		
12	1.00%	3.75%	4.75%		
13	0.80%	3.75%	4.55%		
14	0.80%	3.75%	4.55%		
15	0.80%	3.75%	4.55%		
16	0.80%	3.75%	4.55%		
17	0.80%	3.75%	4.55%		
18	0.80%	3.75%	4.55%		
19	0.80%	3.75%	4.55%		
20	0.80%	3.75%	4.55%		
21	0.80%	3.75%	4.55%		
22	0.80%	3.75%	4.55%		
23	0.70%	3.75%	4.45%		
24	0.70%	3.75%	4.45%		
25	0.70%	3.75%	4.45%		
Dof.	12 2.750/				

Ref: 13 - -3.75%

## Teachers (Continued)

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

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

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

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

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

## Teachers (Continued)

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

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

## 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

% of Active Members Retiring Within Next Year

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

## 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

% of Active Members
Retiring Within Next Year

	Reuring William Next Tear							
Retirement _	Ma	ıle	Fen	nale				
Ages	Normal	Early	Normal	Early				
60		20.5%		17.0%				
61		22.0%		18.0%				
62		23.0%		22.0%				
63		24.0%		23.0%				
64		25.0%		24.0%				
65	60.0%		60.0%					
66	50.0%		60.0%					
67	40.0%		24.0%					
68	30.0%		28.0%					
69	30.0%		29.0%					
70	100.0%		100.0%					

## Teachers (Concluded)

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

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

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

% of Active Members
<b>Becoming Disabled</b>

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

#### 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

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

Ref: 15 - -4.15%

## Police (Continued)

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

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

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

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

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

## Police (Continued)

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

	Probability of Dying Next Year											
		Death Before Retirement										
Sample			M	en		Women						
Ages	0	rdinary			Duty		(	Ordinary			Duty	
20	(	0.009%			0.009%			0.005%			0.005%	
25	(	0.012%			0.012%			0.006%			0.006%	
30	(	0.015%			0.015%			0.008%			0.008%	
35	(	0.026%			0.026%			0.014%			0.014%	
40	(	0.034%			0.034%			0.020%			0.020%	
45	(	0.044%			0.044%			0.031%			0.031%	
50	(	0.056%			0.056%			0.045%			0.045%	
55	(	0.093%			0.093%			0.087%			0.087%	
Ref	454	X	0	454	X	0	455	X	0	455	X	0
	0.375			0.375	5		0.375	5		0.37	5	



## Police (Continued)

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

For Members Hired Prior to July 1, 2011 Who Have Vested Status as of January 1, 2012

For Members Hired on or After July 1, 2011 and for Members Hired Prior to July 1, 2011 Who Have Non-Vested Status as of January 1, 2012

Retirement Ages	% of Active Members Retiring Within Next Year	Age 46 with 21 years	Age 47 with 22 years	Age 48 with 23 years	Age 49 with 24 years	Age 50 with 25 years
45	25%					
46	25%	28%				
47	25%	28%	35%			
48	25%	28%	35%	35%		
49	25%	28%	30%	35%	40%	
50	25%	28%	30%	35%	40%	50%
51	25%	28%	30%	35%	40%	50%
52	25%	28%	30%	35%	40%	50%
53	30%	30%	30%	35%	35%	35%
54	30%	30%	30%	35%	35%	35%
55	30%	30%	30%	30%	35%	35%
56	25%	25%	25%	25%	25%	25%
57	25%	25%	25%	25%	25%	25%
58	30%	30%	30%	30%	30%	30%
59	25%	25%	25%	25%	25%	25%
60	25%	25%	25%	25%	25%	25%
61	20%	20%	20%	20%	20%	20%
62	20%	20%	20%	20%	20%	20%
63	25%	25%	25%	25%	25%	25%
64	25%	25%	25%	25%	25%	25%
65	25%	25%	25%	25%	25%	25%
66	100%	100%	100%	100%	100%	100%

## Police (Concluded)

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

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

Rates of disability among active members.

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

#### 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

	roi a	n maiyiddai Memi	<i>J</i> C1
Service	Merit &	Base	Increase
Index	Seniority	(Economy)	Next Year
1	20.80%	3.75%	24.55%
2	10.80%	3.75%	14.55%
3	8.30%	3.75%	12.05%
4	5.80%	3.75%	9.55%
5	3.30%	3.75%	7.05%
6	3.30%	3.75%	7.05%
7	1.60%	3.75%	5.35%
8	1.30%	3.75%	5.05%
9	1.10%	3.75%	4.85%
10	1.10%	3.75%	4.85%
11	1.00%	3.75%	4.75%
12	1.00%	3.75%	4.75%
13	0.90%	3.75%	4.65%
14	0.90%	3.75%	4.65%
15	0.90%	3.75%	4.65%
16	0.90%	3.75%	4.65%
17	0.90%	3.75%	4.65%
18	0.90%	3.75%	4.65%
19	0.90%	3.75%	4.65%
20	0.90%	3.75%	4.65%
21	0.80%	3.75%	4.55%
22	0.80%	3.75%	4.55%
23	0.80%	3.75%	4.55%
24	0.80%	3.75%	4.55%
25	0.80%	3.75%	4.55%

Ref: 15 - -4.55%

# Fire (Continued)

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

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

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

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

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

# Fire (Continued)

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

	Probability of Dying Next Year								
Death Before Ret					etiremer	nt			
Sample		N	<b>I</b> en			Wor	nen		
Ages	Ordina	ry	Duty	7	Ordina	ry	D	outy	
20	0.01%		0.01%		0.00%		0.0	00%	
25	0.01%		0.01%		0.00%		0.0	00%	
30	0.01%		0.01%		0.01%		0.0	)1%	
35	0.02%		0.02%		0.01%		0.0	)1%	
40	0.02%		0.02%		0.01%		0.0	)1%	
45	0.03%		0.03%		0.02%		0.0	)2%	
50	0.04%		0.04%		0.03%		0.0	)3%	
55	0.06%		0.06%		0.06%		0.0	)6%	
Ref	454 x	0.25	454 x	0.25 455	5 x	0.25	455	v	0.25



# Fire (Continued)

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

For Members Hired Prior to July 1, 2011 Who Have Vested Status as of January 1, 2012 For Members Hired on or After July 1, 2011 and for Members Hired Prior to July 1, 2011 Who Have Non-Vested Status as of January 1, 2012

Retirement	% of Active Members	Age 46	Age 47	Age 48	Age 49	Age 50
Ages	Retiring Within Next Year	with 21 years	with 22 years	with 23 years	with 24 years	with 25 years
45	15%					
46	12%	15%				
47	12%	15%	17%			
48	12%	15%	17%	21%		
49	12%	15%	17%	21%	25%	
50	15%	15%	18%	21%	25%	32%
51	15%	15%	18%	21%	25%	32%
52	15%	15%	18%	21%	25%	32%
53	25%	25%	25%	25%	25%	25%
54	20%	20%	20%	20%	20%	20%
55	30%	30%	30%	30%	30%	30%
56	30%	30%	30%	30%	30%	30%
57	25%	25%	25%	25%	25%	25%
58	25%	25%	25%	25%	25%	25%
59	25%	25%	25%	25%	25%	25%
60	25%	25%	25%	25%	25%	25%
61	40%	40%	40%	40%	40%	40%
62	30%	30%	30%	30%	30%	30%
63	30%	30%	30%	30%	30%	30%
64	30%	30%	30%	30%	30%	30%
65	100%	100%	100%	100%	100%	100%

# Fire (Concluded)

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

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

Rates of disability among active members.

Sample

	District Within 1 (City 1 Ct.)			
Ages	Ordinary	Accidental		
20	0.04%	0.02%		
25	0.04%	0.02%		
30	0.05%	0.02%		
35	0.06%	0.02%		

% of Active Members Becoming **Disabled within Next Year** 

20	0.04%	0.02%
25	0.04%	0.02%
30	0.05%	0.02%
35	0.06%	0.02%
40	0.11%	0.08%
45	0.23%	0.08%
50	0.54%	0.33%
55	1.21%	0.33%
Ref	2	28
	0.80	0.30

## Miscellaneous and Technical Assumptions

Administrative & Investment Expenses

The investment return assumption is intended to be the return net of investment expenses. Annual administrative expenses are assumed to be equal to the prior year's administrative expenses. Assumed administrative expenses are added to the Normal Cost, and were 0.35% of payroll in the June 30, 2012 valuation.

Benefit Service

Exact Fractional service is used to determine the amount of benefit

payable.

COLA None assumed.

**Decrement Operation** Disability decrements do not operate during retirement eligibility.

Only withdrawal operates in the select withdrawal period.

**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 It is assumed that 25% of members who quit before retirement with

10-15 years of service will elect to refund and forfeit their pension.

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

9.0%, 7.0%, 12.0% and 12.0% for Employees, Teachers, Police and Fire respectively to account for lump sum payouts. Members hired after July 1, 2011 or who have non-vested status as of January 1, 2012 are assumed to have no adjustment for end of career payments.

Marriage Assumption Group I: 70% of males and 70% of females are assumed to be

married for purposes of death-in-service benefits. Group II: 50% of males and 50% of females are assumed to be married for purposes of death-in-service and death after retirement benefits. Male spouses are assumed to be three years older than female spouses for active

member valuation purposes.

Normal Form of Benefit Group I: The assumed normal form of benefit is a straight life

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

Pay Increase Timing Beginning of (Fiscal) year. This is equivalent to assuming that

reported pays represent amounts paid to members during the year

ended on the valuation date.

Service Credit Accruals

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

year.

Data Adjustments For the June 30, 2012 valuation, new active member pays were

annualized.

Medical Subsidy The solvency rates for the medical subsidy benefits were determined

to provide an estimated margin of 20% of the benefits payable in the

year ending at the end of the pertinent biennium.



Statute Amended and Restated under New Hampshire Revised Statutes

Annotated (RSA) Chapter 100-A. Most recently amended under

legislation passed in the year ending June 30, 2011.

Effective Date July 1, 1967

Plan Year July 1 through June 30

Type of Plan Qualified, governmental defined benefit retirement plan; it is a

single plan for financial reporting purposes.

Eligibility Requirements Any employee or teacher becomes a Group I member as a condition of employment. Membership is optional for elected

officials, officials appointed for fixed terms, unclassified state

employees or employees of the general court.

Creditable Service Service measured from date of employment to date of retirement

or prior termination plus service credited under one or more of

the predecessor systems.

Earnable Compensation Full base rate of compensation paid plus any overtime pay, holiday

and vacation pay, sick pay, longevity or severance pay, cost of living bonus, additional pay for extracurricular and instructional activities or for other extra or special duty, and other compensation paid to the member by the employer, plus the fair market value of non-cash compensation such as meals or living quarters if subject to federal income tax. Earnable compensation in the final 12 months prior to termination shall be limited to 1 ½ times the higher of the earnable compensation in the 12 month period preceding the final

12 months or the highest compensation year excluding the final 12

months.

For active members who begin service on or after July 1, 2011 or who are not in vested status on and after January 1, 2012 – Full base rate of compensation paid plus any overtime pay, holiday and vacation pay, sick pay, longevity pay, cost of living bonus, additional pay for extracurricular and instructional activities, and any military differential pay, plus the fair market value of non-cash compensation such as meals or living quarters if subject to federal income tax, but excluding other compensation except supplemental pay paid by the employer while the member is receiving workers' compensation and teacher development pay that is not part of the contracted annual salary. Compensation for extra and special duty, as determined by the employer, shall be eliminated for those hired after July 1, 2011 and shall be included but limited during the highest 5 years of creditable service as provided in paragraph RSA 100-A:1 XVIII as amended.

GRS

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

Average Final Compensation (AFC)

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

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

Service Retirement

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

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

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

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

Normal Form: Straight life annuity.

Early Retirement

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

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

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

**Ordinary Disability** 

Eligibility: 10 or more years of creditable service.

Benefit: Service Retirement Benefit if at least age 60. Under age 60, a member annuity plus state annuity that shall be equal to 1.5% times AFC times years of creditable service. The disability retirement

allowance shall not be less than 25% of AFC.

Accidental Disability

Eligibility: Permanently disabled in the performance of duty.

Benefit: Service Retirement Benefit if at least age 60, not less than 50% of AFC. Under age 60, a member annuity plus state annuity that

shall be equal to 50% times AFC.

Accidental Death Benefits

Eligibility: Accidental death in the performance of duty.

Benefit: 50% times AFC.

**Ordinary Death Benefits** 

Eligibility: Death other than accidental death

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

member's annual compensation.

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

compensation.

Post Retirement Death

Not applicable.

**Optional Forms** 

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

Option 1. Full cash refund.

Option 2. 100% Joint and Survivor. Option 3. 50% Joint and Survivor. Option 4. Other Joint and Survivor.

**Vested Termination** 

If a member terminates with less than 10 years of service, the Member's own contributions are refunded. If a Member terminates with 10 or more years of service, the Member either receives his service retirement or reduced early service retirement benefit beginning at any age after age 50 (age 60 for members hired after July 1, 201) or the member may apply for a refund of accumulated contributions.

#### Maximum Benefit

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

#### Refunds

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

#### Member Contributions

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

#### **Employer Contributions**

As prescribed in RSA 100-A:16.

# Temporary Supplemental Allowances

None.

#### Other Ancillary Benefits

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

Statute Amended and Restated under New Hampshire Revised Statutes

Annotated (RSA) Chapter 100-A. Most recently amended under

legislation passed in the year ending June 30, 2011.

Effective Date July 1, 1967

Plan Year July 1 through June 30

Type of Plan Qualified, governmental defined benefit retirement plan; it is a single

plan for financial reporting purposes.

Eligibility Requirements Any permanent policeman or permanent fireman becomes a Group II

member as a condition of employment.

Creditable Service Service measured from date of employment to date of retirement or

prior termination plus service credited under one or more of the

predecessor systems.

**Earnable Compensation** Full base rate of compensation paid plus any overtime pay, holiday and vacation pay, sick pay, longevity or severance pay, cost of living bonus,

additional pay for extracurricular and instructional activities or for other extra or special duty, and other compensation paid to the member by the employer, plus the fair market value of non-cash compensation such as meals or living quarters if subject to federal income tax. Earnable compensation in the final 12 months prior to termination shall be limited to 1 ½ times the higher of the earnable compensation in the 12

month period preceding the final 12 months or the highest compensation year excluding the final 12 months.

For active members who begin service on or after July 1, 2011 or who are not in vested status on and after January 1, 2012 – Full base rate of

compensation paid plus any overtime pay, holiday and vacation pay, sick pay, longevity pay, cost of living bonus, additional pay for extracurricular and instructional activities, and any military differential pay, plus the fair market value of non-cash compensation such as meals or living quarters if subject to federal income tax, but excluding other compensation except supplemental pay paid by the employer while the member is receiving workers' compensation and teacher development

pay that is not part of the contracted annual salary. Compensation for extra and special duty, as determined by the employer, shall be

eliminated for those hired after July 1, 2011 and shall be included but limited during the highest 5 years of creditable service as provided in

paragraph RSA 100-A:1 XVIII as amended.

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

Average Final Compensation (AFC)

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

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

Service Retirement

Eligibility: Age 45 and 20 years of creditable service or age 60 (age 52.5 with 25 years of creditable service or age 60 for members commencing service on or after July 1, 2011).

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

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

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

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

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

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

#### **Ordinary Disability**

Eligibility: 10 or more years of creditable service.

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

#### Accidental Disability

Eligibility: Permanently disabled in the performance of duty.

#### Benefit:

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

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

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

#### Accidental Death Benefits

Eligibility: Accidental death in the performance of duty.

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

#### **Ordinary Death Benefits**

Eligibility: Death other than accidental death.

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

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

#### Post Retirement Death

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

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

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

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

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

#### **Optional Forms**

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

Option 1. Full cash refund.

Option 2. Not applicable.

Option 3. 50% Joint and Survivor.

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

#### **Vested Termination**

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

#### Maximum Benefit

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

#### Refunds

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

#### Member Contributions

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

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

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

#### **Employer Contributions**

As prescribed in RSA 100-A:16.

#### Temporary Supplemental Allowances

None.

#### Other Ancillary Benefits

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

#### **2012 Legislative Session**

- (a) Modifies the calculation of Average Final Compensation (AFC) for members not vested prior to January 1, 2012 by changing the "compensation over base pay" factor used in the AFC formula from a dollar average to a percentage average.
- (b) Clarifies the date from which NHRS must begin calculating a 7-year average of Extra or Special Duty Pay for Group II (Police and Fire) members vested prior to January 1, 2012. This change excludes from the calculation any months prior to July 1, 2009, which is when ESDP began to be separately reported to NHRS.
- (c) Clarifies the number of years of creditable service Group II (Police and Fire) members in service prior to July 1, 2011, but not vested prior to January 1, 2012, must have in order to qualify for the supplemental disability benefit available to eligible Accidental Disability retirees.
- (d) Changes the annual effective date of changes to the member interest rate from a fiscal year to a calendar year.
- (e) Clarifies the definition of "compensation over base pay" for members not vested prior to January 1, 2012.
- (f) Clarifies that the maximum benefit limit for members hired before July 1, 2009, is 100 percent of Earnable Compensation and the maximum benefit limit for members hired after that date, and not vested by January 1, 2012, is the lesser of 85 percent of AFC or \$120,000 per year.
- (g) Modifies the definition of "part-time" for NHRS retirees employed by NHRS-participating employers.
- (h) Changes the date by which NHRS Trustees must approve the retirement system's Comprehensive Annual Financial Report from December 1 to December 31 of each year.
- (i) RSA 100-A:53, II; RSA 100-A:53-e, II; RSA 100-A:16, II(h); and RSA 100-A:16, II(j), relative to the Special Account, are repealed.
- (j) RSA 100-A:16, III-a, commonly known as the employer "spiking" assessment, is repealed.

#### **2011 Legislative Session:**

Legislation enacted in the 2011 legislative session is summarized below:

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

- (a) Change the definition of Earnable Compensation for active members who begin service on or after July 1, 2011 or who are not in vested status on and after January 1, 2012.
- (b) For active members who commenced service on or after July 1, 2011 or who have non-vested status on or after January 1, 2012 AFC equals the average annual earnable compensation during the highest 5 years of creditable service.
- (c) For members who commenced service on or after July 1, 2009 or are non-vested as of January 1, 2012, a member's retirement benefit shall not exceed the lesser of 85% of the member's highest average final compensation or \$120,000.
- (d) Group I members commencing service on or after July 1, 2011 are eligible to retire at age 65 and are eligible for a reduced annuity at age 60 with 30 years of creditable service. Prior to age 65, the state annuity, together with the member annuity, shall be equal to 1/66th of AFC times creditable service reduced for each month prior to the month after the member attains age 65 by 1/4 of 1%. After age 65, the state annuity, together with the member annuity, shall be equal to 1/66th of AFC times creditable service, reduced for each month prior to the month after the member attains age 65 by 1/4 of 1%.
- (e) Group II members commencing service on or after July 1, 2011 are eligible to retire at age 52.5 with 25 years of creditable service or age 60. The benefit shall be equal to 2% of AFC times creditable service up to 42.5 years. However, a member who commenced service on or after July 1, 2011 shall not receive a service retirement allowance until attaining the age of 52.5, but may receive a reduced allowance after age 50 if the member has at least 25 years of creditable service where the allowance shall be reduced, for each month by which the benefit commencement date precedes the month after which the member attains 52.5 years of age, by ¼ of 1%.
- (f) Group II members hired prior to July 1, 2011 who have non-vested status as of January 1, 2012 shall be subject to transition provisions for years of service required for regular service retirement, the minimum age for regular service retirement, and the multiplier used to calculate the retirement annuity, which shall be applicable on January 1, 2012.
- (g) Group II members commencing service on or after July 1, 2011 are eligible for an accidental disability benefit and shall receive a benefit equal to 2/3 of AFC. If a member has more than 33-1/3 years of service, the member will receive a supplemental disability benefit equal to 2% of AFC times years of creditable service in excess of 33-1/3 years but not in excess of 42.5 years.

**GRS** 

(h) Member Contributions

Group I members: 7.0% of earnable compensation.

Group II fire members: 11.80% of earnable compensation.

Group II police members: 11.55% of earnable compensation.

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

- (i) *Medical Subsidy* After July 1, 2007 and including each July 1, thereafter, the rate payable shall not be increased.
- (j) Interest on the individual accounts of members in the member annuity savings fund shall be credited interest at 2 percentage points less than either the most recent board of trustees approved assumed rate of return determined under RSA 100-A:16, II(h) or the actual rate of return, whichever is lower for the immediately preceding fiscal year as reported in the CAFR as approved and accepted by the board of trustees by December 1, of each year, provided the rate shall not be less than zero.
- (k) Any retired member who is receiving a medical subsidy under RSA 100-A:52 or RSA 100-A:52-a shall be entitled to receive an additional supplemental allowance. The amount of the additional temporary supplemental allowance shall be \$500 for retirees taking a one-person medical benefit and \$1,000 for retirees taking a 2-person medical benefit, paid from the respective component of the reserve for TSAs. The supplemental allowance shall apply only for the fiscal years beginning July 1, 2008 up to and including the fiscal year beginning July 1, 2012.
- (1) Transfer the balance in each special account component (Employees, Teachers, Police and Fire) to the corresponding components of the State annuity accumulation fund except for funds necessary to comply with RSA 100-A:41-d, III as amended.



#### **2010 Legislative Session:**

Legislation enacted in the 2010 legislative session is summarized below:

- (a) **Special Session House Bill 1: COLA, TSA approved.** Provides cost-of-living adjustments (COLAs) and temporary supplemental allowances (TSAs) for eligible retirees or beneficiaries;
- (b) **Senate Bill 504: "Spiking" provision deferred.** Extends the effective date of the 2008 legislation creating the so-called "spiking" provision (125% assessment) from July 1, 2010 to July 1, 2011. A study commission continues to evaluate proposals for the assessment methodology;
- (c) House Bill 1668: State Medical Subsidy insurance for Group II members [RSA 21-I30]. Requires Group II (Police and Fire) members whose service with a state agency or department began on or after July 1, 2010, complete at least 20 years of creditable service with the state in order to qualify for post-retirement state medical subsidy insurance coverage.

### Medical Plan Provisions

Subsidy Benefits as of July 1, 2012 and thereafter are as follows:

	<b>Monthly Amounts</b>		
	Pre-65	Post-65	
Single	\$375.56	\$236.84	
Couple	\$751.12	\$473.68	

The above amounts will not increase.

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

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

### Medical Plan Provisions

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

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

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

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

# SECTION I 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. An Actuarial Valuation for a governmental retirement system typically also includes calculations of items needed for compliance with GASB Statement No. 25, such as the Funded Ratio and the Annual Required Contribution (ARC).

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 actuarially 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, determined under GASB Statement No. 25. 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.

Governmental Accounting Standards Board.

GASB No. 25 and GASB No. 27

These are the governmental accounting standards that set the accounting rules for public retirement systems and the employers that sponsor or contribute to them. Statement No. 27 sets the accounting rules for the employers that sponsor or contribute to public retirement systems, while Statement No. 25 sets the rules for the systems themselves.

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.

crueu Lubiniy value of Asset

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.