# New Hampshire Retirement System

ACFR Schedules, GASB Statement Nos. 67 and 74 Plan Reporting and Accounting Schedules June 30, 2022







November 7, 2022

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

Attention: Ms. Jan Goodwin

Dear Board Members:

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

The purposes of this report are:

- To provide information in connection with Governmental Accounting Standards Board (GASB) Statement No. 67 "Financial Reporting for Pension Plans" as of June 30, 2022.
- To provide information in connection with Governmental Accounting Standards Board (GASB) Statement No. 74 "Financial Reporting for Postemployment Benefit Plans Other Than Pension Plans" as of June 30, 2022.
- To provide supporting schedules for the Annual Comprehensive Financial Report (ACFR) for the System's use in the Actuarial Section, the Statistical Section, Notes to the Financial Statements, and Required Supplementary Information.

The report was based upon information, furnished by New Hampshire Retirement System staff, concerning Retirement System benefits, financial transactions, and active members, terminated members, retirees and beneficiaries as of June 30, 2022. We checked for internal and year-to-year consistency, but did not audit the data. We are not responsible for the accuracy or completeness of the data provided by NHRS.

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

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

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- Active Members Age and Service Distribution
- Historical Membership Data Active and Retired
- Summary of Membership Data by Category
- Schedule of Average Benefit Payment Amounts
- Schedule of Retired and Vested Members by Type of Benefit
- Solvency Test
- Schedule of Employer Contributions Pension and OPEB
- Schedule of Changes in the Employers' Net Pension Liability, Net OPEB Liability and Related Ratios
- Sensitivity of Net Pension Liability and Net OPEB Liability to the Single Discount Rate Assumption

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

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

The financial objective for medical subsidy benefits under RSA 100-A:53, 53-b, 53-c and 53-d is to contribute the lesser of 25 percent of the total employer contribution or the minimum amount necessary to maintain the benefit. RSA 100-A:16 requires biennial actuarial valuations on June 30 of odd years. The Board has adopted an Actuarial Funding Policy which requires annual actuarial valuations. The financial objectives are addressed within the statutory biennial actuarial valuation. The valuation process develops pension contribution rates that are sufficient to fund the plan's current pension cost (i.e., the costs assigned by the valuation method to the year of service about to be rendered), as well as to fund pension unfunded actuarial accrued liabilities as a level percent of active member payroll over a closed 30-year period beginning with the fiscal year ending June 30, 2010. Legislation was enacted in 2018 which requires the unfunded liability as of June 30, 2017 to be amortized through 2039. Each subsequent change in liability as calculated in odd-numbered years shall be separately amortized over a fixed period of no longer than 20 years.

The actuarial calculations for funding purposes as of June 30, 2022 in this report are based on the assumptions adopted by the Board pursuant to the June 30, 2019 experience study and the census information as of June 30, 2022. The actuarial accrued liability as of June 30, 2022 differs from the total pension (OPEB) liability as of June 30, 2022 under GASB Statement Nos. 67 and 74 because the total pension (OPEB) liability is based on a roll-forward of the June 30, 2021 actuarial valuation under the System's accounting procedures.



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For funding purposes, assets are valued on a market related basis that recognizes each year's difference between actual and assumed investment return over a closed five-year period. For GASB Statement Nos. 67 and 74 purposes, assets are reported and used on a market basis.

The actuarial valuation results summarized in this report involve actuarial calculations that require assumptions about future events. The actuarial assumptions are established by the Board after consulting with the actuary under New Hampshire Statute RSA 100-A:14 IX. The assumptions and methods used in this report are reasonable and appropriate for funding purposes and conform to the Actuarial Standards of Practice. However, other assumptions and methods could also be reasonable and could result in materially different results. In addition, because it is not possible or practical to consider every possible contingency, we may use summary information, estimates or simplifications of calculations to facilitate the modeling of future events. We may also exclude factors or data that are deemed to be immaterial. The actuarial funding method is the Individual Entry Age Actuarial Cost Method, in compliance with NHRS State Statutes. The actuarial assumptions and the methods comply with the requirements of Statement Nos. 67 and No. 74 of the Governmental Accounting Standards Board. Each actuarial valuation takes into account all prior differences between actual and assumed experience in each risk area and adjusts the contribution rates as needed. Actuarial methods and assumptions were adopted by the Board pursuant to the June 30, 2019 Experience Study.

This report was prepared using our proprietary valuation model and related software which, in our professional judgment, has the capability to provide results that are consistent with the purposes of the valuation, and has no material limitations or known weaknesses. We performed tests to ensure that the model reasonably represents that which is intended to be modeled.

We certify that the information contained in this June 30, 2022 accounting report of the NHRS is accurate and fairly presents the actuarial position of the New Hampshire Retirement System as of June 30, 2022 under the current actuarial assumptions. All calculations have been made in conformity with generally accepted actuarial principles and practices, with the Actuarial Standards of Practice issued by the Actuarial Standards Board and with applicable statutes RSA 100-A:16, 100-A:53, 100-A:53-b, 100-A:53-c, and 100-A:53-d.

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



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

Respectfully submitted, Gabriel, Roeder, Smith & Company

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**SECTION A** 

INTRODUCTION

## Executive Summary Pension (\$ Amounts in Millions)

Valuation as of:	Jur	ne 30, 2022	Jun	e 30, 2021
Membership				
Number of				
- Active members		48,687		48,582
- Retirees and Beneficiaries		42,415		40,974
- Inactive, vested		2,990		2,730
- Inactive, nonvested		16,717		14,946
Total		110,809		107,232
Assets				
Market value	\$	10,708.4	\$	11,523.9
Actuarial value	\$	10,849.7	\$	10,268.3
Return on market value		-6.0%		29.1%
Return on actuarial value		6.9%		10.8%
Employer contributions	\$	579.0	\$	459.3
External cash flow %		-1.1%		-2.1%
Ratio of actuarial to market value		101.3%		89.1%
Actuarial Information				
Actuarial accrued liability (AAL)	\$	16,543.5	\$	15,991.2
Unfunded actuarial accrued liability (UAAL)	\$	5,693.8	\$	5,722.9
Funded Ratio		65.6%		64.2%
Gains/(losses) resulting from				
- Asset experience	\$	18.8	\$	381.1
- Liability experience		(110.7)		(35.0)
- Benefit changes		-		-
<ul> <li>Assumption/method changes</li> </ul>		-		-
	\$	(91.9)	\$	346.1
GASB Information				
Total pension liability (TPL)	\$	16,444.5	\$	15,955.8
Net pension liability (NPL)	\$	5,736.1	\$	4,431.9
Plan fiduciary net position (PFNP) as		65.1%		72.2%
a percentage of TPL				



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## Executive Summary Pension

Covered (	ered Group		Employees	 Teachers	Police		Fire	 Total	
I. Numbe	r of Participants as of June 30, 2022								
a.	Actives		24,644	18,217	4,103		1,723	48,687	
b.	Retirees, Disabilities, and Beneficiaries <sup>1</sup>		20,751	15,154	4,644		1,866	42,415	
с.	Vested Terminations		1,530	1,263	160		37	2,990	
d.	Non-Vested Inactive Terminations		11,488	4,174	964		91	16,717	
e.	Total		58,413	38,808	9,871		3,717	110,809	
f.	Total Covered Annual Payroll	\$	1,367,483,149	\$ 1,226,569,560 \$	336,499,612	\$	147,031,674	\$ 3,077,583,995	
g.	Ratio of Actives to Benefit Recipients		119%	120%	88%		92%	115%	
II. GASB N	No. 67 Information								
a.	Total Pension Liability (TPL) <sup>2</sup>							\$ 16,444,488,494	
b.	Plan Fiduciary Net Position (PFNP)						-	10,708,357,010	
с.	Net Pension Liability (NPL): a. – b.							5,736,131,484	
d.	PFNP as a Percentage of TPL: b. / a.							65.1%	
III. Statut	ory Funding Information								
a.	Actuarial Present Value of Projected Benefits	\$	6,422,726,015	\$ 7,386,618,468 \$	3,705,644,891	\$	1,718,128,203	\$ 19,233,117,577	
b.	Actuarial Present Value of Future Normal Costs		880,480,815	1,038,021,494	518,088,221		253,040,390	2,689,630,920	
с.	Actuarial Accrued Liability (AAL): a. – b.		5,542,245,200	6,348,596,974	3,187,556,670		1,465,087,813	16,543,486,657	
d.	Actuarial Value of Assets		3,645,813,360	3,976,504,897	2,171,110,597		1,056,265,101	10,849,693,955	
e.	Unfunded Actuarial Accrued Liability (UAAL): c. – d.	\$	1,896,431,840	\$ 2,372,092,077 \$	1,016,446,073	\$	408,822,712	\$ 5,693,792,702	
f.	Funded Status: d. / c.		65.8%	62.6%	68.1%		72.1%	65.6%	
IV. Additi	onal Information on Payroll								
Sta	ite	\$	623,069,109	\$ - \$	93,123,988	\$	2,541,964	\$ 718,735,061	
Pol	litical Subdivisions		744,414,040	1,226,569,560	243,375,624		144,489,710	2,358,848,934	
Tot	tal	\$	1,367,483,149	\$ 1,226,569,560 \$	336,499,612	\$	147,031,674	\$ 3,077,583,995	
Co	ntribution Rates for Fiscal Year 2022 (% of Payroll) <sup>3</sup>								
	Member		7.00%	7.00%	11.55%		11.80%		
	Employer (Including Health Subsidy)		14.27%	21.02%	33.88%		32.99%		

<sup>1</sup> Number counts for inactive plan members or beneficiaries currently receiving benefits include 3,698 additional data records which have resulted from additional annuities, survivor benefits, or members having benefits in more than one valuation group.

<sup>2</sup> GASB Statement No. 67 TPL is based on a roll-forward of the June 30, 2021 valuation. Statutory Funding information is based on data/information provided as of June 30, 2022.

<sup>3</sup> Percent-of-payroll contributions applicable to fiscal year 2022 as determined in the June 30, 2019 valuation. Rates shown are pro-rated based on proportions of payroll attributed to State and Political Subdivisions within the various member classifications.



## Executive Summary Medical Subsidy (\$ Amounts in Millions)

Valuation as of:	Jui	ne <b>30, 2022</b>	Jun	e 30, 2021
Membership				
Number of				
- Active members		1,485		1,767
- Retirees and Beneficiaries		9,133		9,375
Total		10,618		11,142
Assets				
Market value	\$	45.0	\$	49.8
Actuarial value	\$	45.6	\$	44.4
Return on market value		-6.0%		29.1%
Return on actuarial value		6.9%		10.8%
Employer contributions	\$	42.1	\$	48.1
External cash flow %		-1.1%		-2.1%
Ratio of actuarial to market value		101.3%		89.1%
Actuarial Information				
Actuarial accrued liability (AAL)	\$	567.2	\$	614.2
Unfunded actuarial accrued liability (UAAL)	\$	521.6	\$	569.8
Funded Ratio		8.0%		7.2%
Gains/(losses) resulting from				
- Asset experience	\$	0.0	\$	1.0
- Liability experience		22.6		17.8
- Benefit changes		-		-
- Assumption/method changes		-		-
	\$	22.6	\$	18.8
GASB Information	1	100.0		
Total OPEB liability (TOL)	\$	422.9	\$	450.3
Net OPEB liability (NOL)	\$	377.9	\$	400.5
Plan fiduciary net position (PFNP) as		10.6%		11.1%
a percentage of TOL				



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## Executive Summary Medical Subsidy

Covered Group	State Employees	Political Subdivision Employees	Teachers	Police and Fire	Grand Total
I. Number of Participants Covered by	Employees	Linployees	redeners	1110	lota
Post Retirement Medical Subsidy as of June 30, 2022					
a. Actives	-	-	-	1,485	1,485
b. Retirees, Disabilities, and Beneficiaries	1,311	993	3,852	2,977	9,133
c. Vested Terminations	 -	-	-	-	-
d. Total	1,311	993	3,852	4,462	10,618
e. Total NHRS Covered Annual Payroll	\$ 623,069,109	\$ 744,414,040	\$ 1,226,569,560	\$ 483,531,286	\$ 3,077,583,995
II. GASB No. 74 Information					
a. Total OPEB Liability (TOL)					\$ 422,879,532
b. Plan Fiduciary Net Position (PFNP)					44,991,847
c. Net OPEB Liability (NOL): a. − b.					377,887,685
d. PFNP as a Percentage of TOL: b. / a.					10.64%
III. Statutory Funding Information					
a. Actuarial Present Value of Projected Benefits	\$ 41,956,672	\$ 42,618,720	\$ 198,912,496	\$ 289,212,037	\$ 572,699,925
b. Actuarial Present Value of Future Normal Costs	-	-	-	5,471,212	5,471,212
c. Actuarial Accrued Liability (AAL): a. – b.	 41,956,672	42,618,720	198,912,496	283,740,825	567,228,713
d. Valuation Assets	 2,888,986	10,077,360	11,522,371	21,096,966	45,585,683
e. Unfunded Actuarial Accrued Liability (UAAL): c. – d.	39,067,686	32,541,360	187,390,125	262,643,859	521,643,030
f. Funded Status: d. / c.	6.9%	23.6%	5.8%	7.4%	8.0%

NOTE: GASB Statement No. 74 TOL is based on a roll-forward of the June 30, 2021 valuation and an investment return assumption of 6.75%. Statutory Funding information is based on data/information provided as of June 30, 2022 and an investment return assumption of 2.75%.



### **Discussion and Comments**

#### Comment 1:

In total, plan experience between June 30, 2021 and June 30, 2022 was unfavorable for pension and favorable for the medical subsidy on the basis of statutory funding. The plan experience was unfavorable for both pension and the medical subsidy on a market value basis for GASB Statement Nos. 67 and 74.

The primary source of actuarial losses over the year were mortality and payroll losses offset moderately by slightly higher investment return on System assets compared to expectations. On the basis of statutory funding, the rate of return for the year ending June 30, 2022 was 6.93% on the actuarial value of assets, resulting in a recognized asset gain of approximately \$19 million (pension and medical subsidy combined). The dollar-weighted rate of return was (6.02%) on the market value of assets. (Note: This dollar weighted measure may differ from investment manager calculations and should not be used as a measure of investment performance). Please see pages 38 and 40 for additional asset information for statutory funding purposes.

The return on the actuarial value of assets is more than the return on the market value of assets because some of this year's market loss is deferred and gains from prior years are recognized this year. The System's actuarial value of assets (\$10.9 billion) exceeds the market value of assets (\$10.75 billion) by \$142 million as of the valuation date (see page 38). This difference will be gradually recognized over the next four years in the absence of future gains/losses.

Total covered payroll increased by 3.5% versus the assumed increase of 2.75% (2.25% for Teachers). Payroll growth was more than expected for the Employees and less than expected for the Fire member classifications. Teachers and Police were close to expectations. We do not have sufficient information to make any adjustment to the data or liability and therefore used the data as reported.

	2022 Total Payroll Gr	
Group	Expected	Actual
Employees	2.75%	5.12%
Teachers	2.25%	2.36%
Police	2.75%	2.80%
Fire	2.75%	0.39%

Overall, the System had a loss of \$69 million comprised of an asset gain of \$19 million and a liability loss of \$88 million. See page 44 for additional information on gains and losses.

Between the 2021 and 2022 valuation, the pension funded ratio, based on the actuarial value of assets, increased by 1.4 percentage points from 64.2% to 65.6%. Approximately 1.7% of the increase in the funded ratio is due to scheduled contributions, while the remaining decrease is the result of actuarial losses for the System. Please see page 37 for additional detail by member classification.

The impact of market-value- based investment losses on GASB Statement No. 67 was a decrease in the ratio of plan fiduciary net position to total pension liability from 72.2% to 65.1%. See pages 9 and 10 for additional plan fiduciary net position information and page 11 for the impact on the net pension liability.



## Discussion and Comments (Concluded)

#### Comment 2:

#### **Benefit Changes**

House Bill (HB) 1535 grants a one-time payment of \$500 to members who retired on or before July 1, 2017, or any beneficiaries of such member who is receiving a survivorship pension benefit who has an annual retirement allowance of no more than \$30,000 on June 30, 2022. The one-time payment will be made during state fiscal year 2023. An appropriation of \$10,793,500 was made by the State for this benefit. HB 1535 is reflected in the GASB 67 Accounting Statements. This bill was terminally funded by the State, therefore, there is no financial impact on the NHRS for adoption of this bill.

#### Comment 3:

In early 2020, the world was faced with the global COVID-19 pandemic, which continues to affect lives and the economy. This valuation reflects the actual experience of the system through June 30, 2022, including the impact of COVID through that date. The demographic and economic impacts of COVID-19 may persist for a period of time. Given the uncertain nature of the future impact of COVID-19, at this time we recommend reflecting actual experience as it emerges through the regular annual valuation process.



### **Results of the Valuation**

This report provides information in connection with Governmental Accounting Standards Board (GASB) Statement Nos. 67 and 74, and it provides summaries of the member data, financial data, plan provisions, and actuarial assumptions and methods.

Calculations required for compliance with the GASB Statement Nos. 68 and 75 will be issued in separate reports.

Valuations for certifying contribution rates are prepared biennially, as of June 30 on the odd numbered years (2023, 2025, etc.). The June 30, 2019 actuarial valuation was the basis for the Fiscal Year 2022 and Fiscal Year 2023 employer contribution rates. The June 30, 2021 actuarial valuation established the Fiscal Year 2024 and Fiscal Year 2025 employer contribution rates.



**SECTION B** 

**FINANCIAL SECTION** 

### **Measurement of the Net Pension Liability**

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

The total pension liability shown in this report is based on an actuarial valuation performed as of June 30, 2021 rolled forward to the measurement date of June 30, 2022. The roll forward procedure increases the June 30, 2021 actuarial accrued liability with normal cost and interest and decreases it with actual benefit payments and administrative expenses paid.

A single discount rate of 6.75% was used to measure the total pension liability. This single discount rate was based on the expected rate of return on pension plan investments of 6.75%. The projection of cash flows, shown on pages 17-22, used to determine this single discount rate assumed that employer contributions will be made under the current statute RSA 100-A:16 and that plan member contributions will be made under RSA 100-A:16. Based on these assumptions, the pension plan's fiduciary net position was projected to be sufficient to make all projected future benefit payments due to current plan members. Therefore, the long-term expected rate of return on pension plan investments was applied to all periods of projected benefit payments to determine the total pension liability.

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

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

		Net Pension Liability		_
Measurement				
Date		Current Single		Single Discount
June 30	1% Decrease	Discount Rate	1% Increase	Rate Assumption
2013	\$5,517,542,052	\$4,303,784,472	\$3,283,507,050	7.75%
2014	4,944,083,125	3,753,585,752	2,749,222,899	7.75%
2015	5,214,835,524	3,961,527,090	2,893,074,359	7.75%
2016	6,832,747,755	5,317,595,337	4,061,016,509	7.25%
2017	6,479,208,704	4,917,992,831	3,638,638,217	7.25%
2018	6,406,666,255	4,815,202,417	3,481,507,071	7.25%
2019	6,443,003,824	4,811,654,670	3,463,357,380	7.25%
2020	8,280,412,543	6,396,151,084	4,856,459,957	6.75%
2021	6,338,151,561	4,431,919,221	2,841,810,253	6.75%
2022	7,696,442,274	5,736,131,484	4,106,314,531	6.75%



## Statement of Fiduciary Net Position as of June 30, 2022 Pension

	 2022*
Assets	
Cash and Deposits	\$ 263,632,000
Receivables	
Accounts Receivable - Sale of Investments	\$ 11,018,000
Interest and Dividend Receivables	13,552,000
Contributions	81,422,000
Accounts Receivable - Other	 8,823,000
Total Receivables	\$ 114,815,000
Investments	
Fixed Income	\$ 1,987,253,000
Domestic Equities	4,065,290,000
International Equities	667,904,000
Real Estate	1,426,321,000
Other	 2,213,774,000
Total Investments	\$ 10,360,542,000
Total Assets	\$ 10,738,989,000
Liabilities	
Payables	
Accounts Payable - Purchase of Investments	\$ 16,245,000
Accrued Expenses	 14,387,000
Total Liabilities	\$ 30,632,000
Net Position Restricted for Pensions	\$ 10,708,357,010

\* Reported amounts provided by the System as of June 30, 2022 do not include the 401(h) medical subsidy account. Detailed breakdown provided in thousands. Total is the actual amount on the balance sheet.



## Statement of Changes in Fiduciary Net Position for Year Ended June 30, 2022 Pension

	Total*
Additions	
Contributions	
Employer	\$ 579,028,230
Member	 243,981,535
Total Contributions	\$ 823,009,765
Investment Income	
Net Appreciation/(Depreciation) in Fair Value of	
Investments	\$ (860,033,694)
Interest and Dividends	225,800,573
Less Investment Expense	 (55,944,319)
Net Investment Income/(Loss)	\$ (690,177,440)
Total Additions	\$ 132,832,325
Deductions	
Benefit Payments and Refunds	\$ 937,721,357
Pension Plan Administrative Expense	9,523,523
Other custodial, professional and non-investment expenses	 1,109,775
Total Deductions	\$ 948,354,655
Net Increase/(Decrease) in Net Position	\$ (815,522,330)
Net Position Restricted for Pensions	
Beginning of Year	\$ 11,523,879,340
End of Year	\$ 10,708,357,010

\* Reported amounts provided by the System as of June 30, 2022 do not include the 401(h) medical subsidy account.



## Schedules of Required Supplementary Information Schedule of Changes in the Employers' Net Pension Liability and Related Ratios Last 10 Fiscal Years

Fiscal Year Ending	June 30, 2022	June 30, 2021	June 30, 2020	June 30, 2019	June 30, 2018	June 30, 2017	June 30, 2016	June 30, 2015	June 30, 2014	June 30, 2013
Total Pension Liability										
Service Cost	\$ 321,589,002	\$ 319,295,943	\$ 310,678,283	\$ 275,380,260	\$ 269,751,007	\$ 262,626,490	\$ 266,379,101	\$ 243,964,955	\$ 245,827,165	\$ 255,178,452
Interest on the Total Pension Liability	1,056,221,936	1,026,952,855	994,537,325	970,599,109	936,988,169	906,200,904	875,246,755	847,646,050	815,213,536	789,791,575
Benefit Changes	10,793,500	-	69,354,791	-	-	-	-	-	-	-
Difference between expected and actual experience of the Total Pension Liability	37,806,852	(5,871,508)	198,104,071	(111,250,355)	39,112,535	(19,046,986)	18,403,928	(106,715,500)	-	(101,140,741)
Assumption Changes	-	-	778,434,124	-	-	-	815,022,527	-	-	-
Benefit Payments	(913,994,579)	(858,210,462)	(816,708,118)	(780,906,714)	(741,752,669)	(706,303,846)	(670,359,868)	(631,310,997)	(599,475,606)	(573,470,316)
Refunds	(23,726,778)	(19,883,792)	(23,312,151)	(23,464,493)	(24,010,459)	(23,408,460)	(24,233,277)	(26,344,739)	(26,119,759)	(23,190,984)
Net Change in Total Pension Liability	\$ 488,689,933	\$ 462,283,036	\$ 1,511,088,325	\$ 330,357,807	\$ 480,088,583	\$ 420,068,102	\$ 1,280,459,166	\$ 327,239,769	\$ 435,445,336	\$ 347,167,986
Total Pension Liability - Beginning	\$ 15,955,798,561	\$ 15,493,515,525	\$ 13,982,427,200	\$ 13,652,069,393	\$ 13,171,980,810	\$ 12,751,912,708	\$ 11,471,453,542	\$ 11,144,213,773	\$ 10,708,768,437	\$ 10,361,600,451
Total Pension Liability - Ending (a)	\$ 16,444,488,494	\$ 15,955,798,561	\$ 15,493,515,525	\$ 13,982,427,200	\$ 13,652,069,393	\$ 13,171,980,810	\$ 12,751,912,708	\$ 11,471,453,542	\$ 11,144,213,773	\$ 10,708,768,437
Plan Fiduciary Net Position										
Contributions - Employer	\$ 579,028,230	\$ 459,277,447	\$ 445,021,693	\$ 434,407,178	\$ 422,659,079	\$ 366,653,014	\$ 357,481,725	\$ 332,294,226	\$ 328,444,256	\$ 249,835,597
Contributions - Member	243,981,535	236,878,931	229,725,742	223,995,134	217,571,830	213,060,827	207,949,398	204,063,168	199,032,996	196,488,619
Pension Plan Net Investment Income	(690,177,440)	2,617,660,628	101,039,189	488,269,838	717,090,294	978,594,418	61,877,808	249,804,954	1,092,585,321	813,797,720
Benefit Payments	(913,994,579)	(858,210,462)	(816,708,118)	(780,906,714)	(741,752,669)	(706,303,846)	(670,359,868)	(631,310,997)	(599,475,606)	(573,470,316)
Refunds	(23,726,778)	(19,883,792)	(23,312,151)	(23,464,493)	(24,010,459)	(23,408,460)	(24,233,277)	(26,344,739)	(26,119,759)	(23,190,984)
Pension Plan Administrative Expense	(9,523,523)	(8,417,145)	(8,281,785)	(7,436,447)	(7,767,254)	(7,670,827)	(7,061,317)	(7,581,315)	(7,376,270)	(6,998,526)
Other custodial, professional and non-investment expenses, and contributions other than for contribution effort	(1,109,775)	(790,708)	(892,659)	(958,942)	(911,824)	(1,254,518)	(1,263,550)	(1,626,866)	(1,446,882)	(1,804,939)
Net Change in Plan Fiduciary Net Position	\$ (815,522,330)		(\$73,408,089)	\$ 333,905,554	\$ 582,878,997	\$ 819,670,608	\$ (75,609,081)		\$ 985,644,056	\$ 654,657,171
Plan Fiduciary Net Position - Beginning	\$ 11,523,879,340	\$ 9,097,364,441	\$9,170,772,530	\$ 8,836,866,976	\$ 8,253,987,979	\$ 7,434,317,371	\$ 7,509,926,452	\$ 7,390,628,021	\$ 6,404,983,965	\$ 5,750,326,794
Plan Fiduciary Net Position - Ending (b)	\$ 10,708,357,010	\$ 11,523,879,340	\$ 9,097,364,441	\$ 9,170,772,530	\$ 8,836,866,976	\$ 8,253,987,979	\$ 7,434,317,371	\$ 7,509,926,452	\$ 7,390,628,021	\$ 6,404,983,965
Net Pension Liability - Ending (a) - (b)	\$ 5,736,131,484	\$ 4,431,919,221	\$6,396,151,084	\$ 4,811,654,670	\$ 4,815,202,417	\$ 4,917,992,831	\$ 5,317,595,337	\$ 3,961,527,090	\$ 3,753,585,752	\$ 4,303,784,472
Plan Fiduciary Net Position as a Percentage of Total Pension Liability	65.12 %	72.22 %	58.72 %	65.59 %	64.73 %	62.66 %	58.30 %	65.47 %	66.32 %	59.81 %
Covered Employee Payroll*	\$3,077,583,995	\$2,972,968,504	\$ 2,894,708,279	\$ 2,825,006,022	\$ 2,752,235,069	\$2,667,611,532	\$2,601,403,606	\$2,575,031,210	\$ 2,507,898,809	\$ 2,501,741,708
Net Pension Liability as a Percentage of Covered Employee Payroll	186.38 %	149.07 %	220.96 %	170.32 %	174.96 %	184.36 %	204.41 %	153.84 %	149.67 %	172.03 %

Notes to Schedule:

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



## Schedules of Required Supplementary Information Schedule of the Employers' Net Pension Liability Last 10 Fiscal Years

FY Ending June 30,	Total Pension Liability	Plan Net Position	Net Pension Liability	Plan Net Position as a % of Total Pension Liability	Covered Payroll*	Net Pension Liability as a % of Covered Payroll
2013	\$ 10,708,768,437	\$ 6,404,983,965	\$ 4,303,784,472	59.81%	\$ 2,501,741,708	172.03%
2014	11,144,213,773	7,390,628,021	3,753,585,752	66.32%	2,507,898,809	149.67%
2015	11,471,453,542	7,509,926,452	3,961,527,090	65.47%	2,575,031,210	153.84%
2016	12,751,912,708	7,434,317,371	5,317,595,337	58.30%	2,601,403,606	204.41%
2017	13,171,980,810	8,253,987,979	4,917,992,831	62.66%	2,667,611,532	184.36%
2018	13,652,069,393	8,836,866,976	4,815,202,417	64.73%	2,752,235,069	174.96%
2019	13,982,427,200	9,170,772,530	4,811,654,670	65.59%	2,825,006,022	170.32%
2020	15,493,515,525	9,097,364,441	6,396,151,084	58.72%	2,894,708,279	220.96%
2021	15,955,798,561	11,523,879,340	4,431,919,221	72.22%	2,972,968,504	149.07%
2022	16,444,488,494	10,708,357,010	5,736,131,484	65.12%	3,077,583,995	186.38%

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



## Schedule of Employer Pension Contributions Last 10 Fiscal Years

FY Ending June 30,	Actuarially Determined Contribution*	Actual Contribution*	Contribution Deficiency (Excess)	Covered Payroll**	Actual Contribution as a % of Covered Payroll
2013	\$ 249,835,597	\$ 249,835,597	\$-	\$ 2,501,741,708	9.99%
2014	328,444,256	328,444,256	-	2,507,898,809	13.10%
2015	332,294,226	332,294,226	-	2,575,031,210	12.90%
2016	357,481,725	357,481,725	-	2,601,403,606	13.74%
2017	366,653,014	366,653,014	-	2,667,611,532	13.74%
2018	422,659,079	422,659,079	-	2,752,235,069	15.36%
2019	434,407,178	434,407,178	-	2,825,006,022	15.38%
2020	445,021,693	445,021,693	-	2,894,708,279	15.37%
2021	459,277,447	459,277,447	-	2,972,968,504	15.45%
2022	579,028,230	579,028,230	-	3,077,583,995	18.81%

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

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



### **Notes to Schedule of Pension Contributions**

Valuation Date	Actuarially determined contribution rates for the 2022-2023 biennium were determined based on the June 30, 2019 actuarial valuation. Actuarially determined contribution rates for the 2024-2025 biennium were determined based on the June 30, 2021 actuarial valuation. Future employer contribution rates for the purposes of the projection in this report are based on the closed statutory amortization period.
Notes	The roll-forward of total pension liability from June 30, 2021 to June 30, 2022 reflects expected service cost and interest reduced by actual benefit payments.

#### Methods and Assumptions:

Actuarial Cost Method	Entry-Age Normal
Amortization Method	Level Percentage-of-Payroll, Closed
Remaining Amortization Period	Multiple periods of 18-20 years
Asset Valuation Method	5-year smoothed market for funding purposes; 20% corridor
Price Inflation	2.0% per year
Wage Inflation	2.75% per year (2.25% for Teachers) in the 2019 valuation
Salary Increases	5.4% average, including inflation
Investment Rate of Return	6.75% per year, net of investment expenses, including inflation
Retirement Age	Experience-based table of rates that are specific to the type of eligibility condition. Based on the 2015-2019 Experience Study.
Mortality	Pub-2010 Healthy Retiree Mortality Tables with credibility adjustments for each member classification (Police and Fire combined) and projected fully generational mortality improvements using Scale MP-2019.
Other Information:	
Notes	The Board has adopted new assumptions based on the 2015-2019 experience study effective for employer contributions in the 2022-23 and the 2024-25 bienniums.

NOTE: A full list of actuarial assumptions and the summary of benefit provisions can be found starting on page 59. Actuarial assumptions for contributions made in the year ending June 30, 2022 can be found in the June 30, 2019 actuarial valuation report.



## Summary of Pension Population Statistics as of June 30, 2021

For purposes of GASB Statement No. 67 disclosures, the System has adopted a roll-forward methodology for accounting purposes. This means that the June 30, 2022 Total Pension Liability is based on a roll-forward of the June 30, 2021 valuation. A brief summary of the June 30, 2021 census data is shown below.

Inactive Plan Members or Beneficiaries Currently Receiving Benefits*	40,974
Inactive Plan Members Entitled to But Not Yet Receiving Benefits	2,730
Active Plan Members	48,582
Non-Vested Inactive Members	14,946
Total Plan Members	107,232

\* Number counts for inactive plan members or beneficiaries receiving benefits as of June 30, 2021 include 3,543 additional data records which have resulted from additional annuities, survivor benefits, or members having benefits in more than one valuation group.

Additional information regarding the covered population as of June 30, 2021 may be found in the ACFR Schedules, GASB Statement Nos. 67 and 74 Plan Reporting and Accounting Schedules report issued October 29, 2021.



### **Calculation of the Single Discount Rate for Pension**

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

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

The determination of the discount rate is done at the plan level. Our understanding is that all pension assets are available to pay the pension benefits of the four member classifications so there is one plan for the discount rate calculation. For the purpose of this valuation, the expected rate of return on pension plan investments is 6.75%; the municipal bond rate is 3.69% (based on the 20-Year Municipal GO AA Index for June 2022); and the resulting single discount rate is 6.75%.

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

The **Projection of Contributions** table shows the development of expected contributions in future years. Service Cost contributions for future hires after June 30, 2022 are not included (nor are their liabilities).

The **Projection of Plan Fiduciary Net Position** table shows the development of expected asset levels in future years after June 30, 2022.

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



### Single Discount Rate Development Projection of Pension Contributions Beginning July 1, 2022 (Years 1-50 only)

0         \$ 3,077,583,995           1         3,049,960,486         \$ 215,715,103         \$ 95,545,797         \$ 486,127,945         \$ 797,388,845           2         2,907,832,524         205,967,293         89,116,005         468,955,133         764,038,431           4         2,659,657,723         188,801,994         77,732,655         504,115,820         770,650,464           5         2,545,143,056         180,856,868         72,594,489         516,897,210         770,70,452,657           6         2,432,437,342         173,015,190         67,651,897         530,005,749         770,249,857           7         2,321,844,779         165,220,899         62,958,770         543,449,883         771,722,551           8         2,211,216,729         157,620,407         58,390,362         557,236,284         773,249,053           9         2,100,812,923         149,907,034         53,395,449         51,379,7863         776,723,476,659           11         1,889,897,757         135,135,158         45,837,610         600,759,192         781,731,960           12         1,787,446,609         127,960,941         42,099,247         616,015,951         786,076,138           13         1,686,956,280         120,911,343         38,471,168	Year	Payroll for Current Employees	Contributions from Current Employees	Employer Service Cost and Expense Contributions	UAL Contributions	Total Contributions
1         3,049,960,486         \$ 215,715,103         \$         95,545,797         \$ 486,127,945         \$ 779,388,845           2         2,907,832,524         205,967,273         188,101,904         480,893,449         76,038,431           3         2,659,657,723         188,801,994         777,32,555         504,115,820         770,672,846           5         2,545,143,056         180,856,868         72,594,489         516,897,210         770,672,845           6         2,432,437,342         173,015,190         67,551,897         543,449,883         771,722,551           7         2,321,844,779         165,320,899         62,958,770         543,449,883         777,32,654           9         2,100,812,923         149,907,034         53,935,849         571,379,845         775,222,728           10         1,993,654,621         142,403,613         49,757,315,858         661,75,951         786,076,138           13         1,686,956,280         120,911,343         38,543,168         631,661,827         79,11,18,33           14         1,989,477         13,515,158         45,837,610         664,173,64         803,582,077           16         1,400,289,474         100,82,861         2,94,77,404         681,056,551         811,020,672     <	0	\$ 3.077.583.995				
2         2,907,832,524         205,967,293         89,116,005         468,955,133         764,038,431           3         2,779,254,806         197,082,127         83,198,802         480,839,449         761,120,378           4         2,659,657,723         188,801,994         77,73,2650         504,115,820         770,650,464           5         2,545,143,056         180,856,868         72,594,489         516,897,210         770,672,836           6         2,432,437,342         173,015,190         67,651,897         530,057,49         770,672,836           7         2,211,216,729         157,620,407         583,90,362         557,238,284         773,249,053           9         2,100,812,923         149,907,034         53,335,849         571,379,845         775,222,728           10         1,936,56,261         12,20,91,1343         38,543,168         631,663,827         791,118,338           14         1,588,511,099         114,018,722         35,193,412         647,712,940         796,925,073           15         1,492,817,798         107,333,058         32,075,355         664,173,664         803,582,077           16         1,400,289,474         100,328,617         29,174,344         681,056,651         811,062,672			\$ 215,715,103	\$ 95,545,797	\$ 486,127,945	\$ 797,388,845
3         2,779,254,806         197,082,127         83,198,802         480,839,449         761,120,378           4         2,659,657,723         188,801,994         77,732,650         504,115,820         770,650,444           5         2,345,143,056         180,856,868         72,594,489         516,897,210         770,348,567           6         2,432,437,342         173,015,190         67,651,897         530,005,749         770,627,836           7         2,321,844,779         165,320,899         62,958,770         543,449,883         717,72,240,053           8         2,211,216,729         157,620,407         58,390,362         557,238,284         773,240,053           10         1,993,654,621         142,403,613         49,752,345         585,883,693         778,039,651           11         1,889,897,757         135,135,158         45,837,610         600,759,192         781,718,383           14         1,588,511,099         114,018,722         35,193,412         647,712,940         796,925,073           15         1,492,817,798         107,33,058         32,075,355         664,173,664         80,582,077           16         1,400,289,474         100,826,617         29,177,404         681,056,615         81,062,074						
4         2,659,657,723         188,801,994         77,732,650         504,115,820         770,650,464           5         2,545,143,056         180,856,868         72,594,489         516,897,210         770,672,845           6         2,432,437,342         173,015,190         67,651,897         533,049,883         771,722,551           8         2,211,216,729         157,620,407         583,390,362         557,238,284         773,249,053           9         2,100,812,923         149,907,034         53,935,849         571,379,845         775,222,728           10         1,933,654,621         142,403,613         49,752,345         585,883,693         778,039,651           12         1,787,446,609         127,960,941         42,099,247         616,015,951         786,076,138           13         1,686,956,280         120,911,343         38,543,168         631,663,827         791,118,338           14         1,588,511,099         14,018,272         35,193,412         647,172,940         796,925,073           16         1,400,289,474         100,828,617         2,9177,404         681,056,651         811,062,672           17         1,310,383,670         94,463,516         26,462,906         698,372,832         819,299,254						
5         2,545,143,056         180,856,868         72,594,489         516,897,210         770,348,567           6         2,432,437,342         173,015,190         67,651,897         530,005,749         770,672,836           7         2,321,844,779         165,320,899         62,958,770         543,449,883         771,729,551           8         2,211,216,729         157,620,407         58,390,362         557,238,284         773,242,4053           9         2,100,812,923         149,907,034         53,935,849         571,379,845         775,222,728           10         1,989,867,757         135,135,158         49,752,345         585,883,693         778,076,138           11         1,889,897,757         135,135,158         42,099,247         616,015,951         786,076,138           13         1,686,956,280         120,911,343         38,543,168         631,663,827         791,118,338           14         1,588,511,099         14,018,722         35,193,412         647,712,940         796,925,073           16         1,400,289,474         10,0328,617         29,177,404         681,056,651         811,026,272           17         1,310,383,670         94,463,516         23,847,105         84,020,226         195,951,944						
6         2,432,437,342         173,015,190         67,651,897         530,005,749         770,672,836           7         2,321,844,779         165,320,899         62,958,770         543,449,883         771,729,551           8         2,211,216,729         157,620,407         58,390,362         557,238,284         773,2240,053           10         1,993,654,621         142,403,613         49,752,345         585,883,693         778,039,651           11         1,889,897,757         135,135,158         45,837,610         600,759,192         781,731,960           12         1,787,446,609         120,911,343         38,543,168         631,663,827         791,118,338           13         1,686,956,280         120,911,343         38,543,168         631,663,827         791,118,338           14         1,588,511,099         114,018,722         35,193,412         647,712,940         795,925,073           15         1,492,817,798         107,333,058         32,075,355         664,173,664         803,582,077           16         1,400,289,474         100,228,617         29,177,404         681,056,651         811,062,672           17         1,310,383,670         94,463,516         23,647,105         84,020,226         195,951,984						
7       2,321,844,779       165,320,899       62,958,770       543,449,883       771,729,551         8       2,211,216,729       157,620,407       58,390,362       557,238,284       773,249,053         9       2,100,812,923       149,907,034       53,935,849       571,379,845       775,222,728         10       1.993,654,621       142,403,613       49,752,345       588,883,693       778,039,651         11       1.889,897,757       135,135,158       45,837,610       600,759,192       781,718,308         12       1,787,446,609       127,960,941       42,099,247       616,015,951       786,076,138         13       1,686,956,280       120,911,343       38,543,168       631,663,827       791,118,338         14       1,588,511,099       114,018,722       35,193,412       647,712,940       796,925,073         15       1,492,417,738       100,328,617       29,177,404       681,056,651       811,062,672         17       1,310,383,670       94,463,516       2,6462,906       698,372,832       819,299,254         18       1,220,900,476       88,084,653       2,3847,105       84,020,226       195,91,91,94         19       1,133,540,352       15,511,179       19,005,968       -       9						
8         2,211,216,729         157,620,407         58,390,362         557,238,284         773,249,053           9         2,100,812,923         149,907,034         53,935,849         571,379,845         775,222,728           10         1,993,654,621         142,403,613         49,752,345         588,883,639         778,039,661           11         1,889,897,757         135,135,158         45,837,610         600,759,192         781,713,600           12         1,787,446,609         127,960,941         42,099,247         616,015,951         786,076,138           13         1,686,956,280         120,911,343         38,543,168         631,663,827         791,118,338           14         1,588,511,099         114,018,722         35,193,412         647,712,940         796,925,073           15         1,492,817,798         107,333,058         32,075,355         664,173,664         803,582,077           16         1,400,289,474         100,82,86,17         29,17,444         681,105,661         811,062,672           17         1,310,383,670         94,463,516         26,642,906         698,372,832         819,299,254           18         1,220,900,476         88,084,653         23,847,105         84,020,226         195,951,447						
9         2,100,812,923         149,907,034         53,935,849         571,379,845         775,222,728           10         1,993,654,621         142,403,613         49,752,345         585,883,693         778,039,651           11         1,889,897,757         135,158         45,837,610         600,759,192         781,731,960           12         1,787,446,609         122,910,911,343         38,543,168         631,663,827         791,118,338           14         1,588,511,099         114,018,722         35,193,412         647,712,940         796,925,073           15         1,400,289,474         100,828,617         29,177,404         681,056,651         811,062,672           17         1,310,383,670         94,463,516         26,462,906         698,372,832         819,299,254           18         1,200,900,476         88,084,653         23,847,105         84,020,226         159,51,941           20         1,047,599,415         75,511,179         19,005,968         -         94,517,147           21         962,427,303         65,043,157         12,395,773         -         66,583,361           23         794,028,103         55,543,157         12,395,773         -         66,583,830           24         710,940,889 </td <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>						
10         1.993,654,621         142,403,613         49,752,345         585,883,693         778,039,651           11         1,889,897,757         135,135,158         45,837,610         600,759,192         781,731,960           12         1,787,446,609         127,960,941         42,099,247         616,015,951         786,076,138           13         1,686,956,280         120,911,343         38,543,168         631,663,827         791,118,338           14         1,588,511,099         114,018,722         35,193,412         647,712,940         796,925,073           16         1,400,289,474         100,828,617         29,177,404         681,056,651         811,062,672           17         1,310,383,670         94,463,516         26,462,906         698,372,832         819,299,254           18         1,220,900,476         88,084,653         23,847,105         84,020,226         195,511,984           19         1,133,540,352         81,790,977         19,005,968         -         94,517,147           21         962,427,303         69,207,421         16,715,180         -         85,932,601           22         877,926,906         62,893,672         14,519,917         -         77,413,589           23         749,028,103				, ,		
11         1,889,897,757         135,135,158         45,837,610         600,759,192         781,731,960           12         1,787,446,609         127,960,941         42,099,247         616,015,951         786,076,138           13         1,686,956,280         120,911,343         38,543,168         631,663,827         791,118,338           14         1,588,511,099         114,018,722         35,193,412         647,712,940         796,925,073           15         1,492,817,798         100,828,617         29,177,404         681,056,651         811,062,672           17         1,310,383,670         94,463,516         26,462,906         698,372,832         819,299,254           18         1,220,900,476         88,084,653         23,847,105         84,020,226         195,951,984           19         1,133,540,352         81,790,997         21,378,332         86,178,389         189,347,118           20         1,047,599,415         75,511,179         19,005,968         -         94,517,147           21         962,427,303         69,207,421         16,715,180         -         86,838,930           24         710,940,889         50,194,793         10,363,659         -         65,633,611           25         632,411,050 </td <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>						
12         1,787,446,609         127,960,941         42,099,247         616,015,951         786,076,138           13         1,686,956,280         120,911,343         38,543,168         631,663,827         791,118,338           14         1,588,511,099         114,018,722         35,193,412         647,712,940         796,925,073           15         1,400,289,474         100,828,617         29,177,404         681,056,651         811,062,672           17         1,310,383,670         94,463,516         26,462,906         698,372,832         819,299,254           18         1,220,900,476         88,084,653         23,847,105         84,020,226         195,951,984           19         1,133,540,352         81,790,997         21,378,332         86,178,389         189,347,718           20         1,047,599,415         75,511,179         19,005,968         -         94,517,147           21         962,427,303         65,634,157         12,395,773         -         68,938,930           23         794,028,103         56,543,157         12,395,773         -         63,583,61           24         710,940,889         50,194,793         10,363,569         -         60,558,361           25         632,411,050 <td< td=""><td></td><td></td><td></td><td></td><td></td><td></td></td<>						
13         1,686,956,280         120,911,343         38,543,168         631,663,827         791,118,338           14         1,588,511,099         114,018,722         35,193,412         647,712,940         796,925,073           15         1,402,817,798         107,333,058         32,075,355         664,173,664         803,582,077           16         1,400,289,474         100,828,617         29,177,404         681,056,651         811,062,672           17         1,310,383,670         94,463,516         26,462,906         683,072,832         819,299,254           18         1,220,900,476         88,084,653         23,847,105         84,020,226         195,951,984           19         1,133,540,352         81,790,997         21,378,332         86,178,389         189,347,718           20         1,047,599,415         75,511,179         19,005,968         -         94,517,147           21         962,427,303         65,043,157         12,395,773         -         68,938,930           24         710,940,889         50,194,793         10,363,565         -         52,754,636           25         632,411,050         44,207,979         8,546,657         -         52,754,636           26         558,880,268 <td< td=""><td></td><td></td><td></td><td></td><td></td><td></td></td<>						
14         1,588,511,099         114,018,722         35,193,412         647,712,940         796,925,073           15         1,492,817,798         107,333,058         32,075,355         664,173,664         803,582,077           16         1,400,289,474         100,828,617         29,177,404         681,056,651         811,062,672           17         1,310,383,670         94,463,516         26,462,906         698,372,832         819,299,254           18         1,220,900,476         88,084,653         23,847,105         84,020,226         195,519,84           19         1,133,540,352         81,790,997         21,378,332         86,178,389         189,347,718           20         1,047,599,415         75,511,179         19,005,968         -         94,517,147           21         962,427,303         69,207,421         16,715,180         -         85,922,601           22         877,926,906         62,893,672         14,519,917         -         77,413,589           23         794,028,103         56,543,157         12,395,773         -         68,938,930           24         710,940,889         50,194,793         10,363,569         -         62,574,636           26         558,80,268         38,68,907						
14         1492,817,798         107,333,058         32,075,355         664,173,664         803,582,077           16         1,400,289,474         100,828,617         29,177,404         681,056,651         811,062,672           17         1,310,383,670         94,463,516         26,462,906         698,372,832         819,299,254           18         1,220,900,476         88,084,653         23,847,105         84,020,226         195,951,984           19         1,133,540,352         81,790,997         21,378,332         86,178,389         189,347,178           20         1,047,599,415         75,511,179         19,005,968         -         94,517,147           21         962,427,303         69,207,421         16,715,180         -         85,92,601           22         877,926,906         62,893,672         14,519,917         -         77,413,589           23         794,028,103         56,543,157         12,395,773         -         68,938,930           24         710,940,889         50,194,793         10,363,569         -         60,558,361           25         632,411,050         44,207,979         8,546,657         -         28,754,364           27         489,794,217         33,594,053         5						
161,400,289,474100,828,61729,177,404681,056,651811,062,672171,310,383,67094,463,51626,462,906698,372,832819,299,254181,220,900,47688,084,65323,847,10584,020,226195,519,84191,133,540,35281,790,99721,378,33286,178,389189,347,718201,047,599,41575,511,17919,005,968-94,517,14721962,427,30369,207,42116,715,180-85,92,60122877,926,90662,893,67214,519,917-77,413,58923794,028,10356,543,15712,395,773-68,938,93024710,940,88950,194,79310,363,569-60,558,36125632,411,05044,207,9798,546,657-52,754,63626558,880,26838,687,9076,984,428-45,672,33627489,794,21733,594,0535,637,940-39,231,99328425,246,35028,604,3722,768,274-23,628,64730310,785,90620,860,3722,768,274-23,628,64731261,894,44717,501,4862,138,548-19,640,03532217,815,02914,512,2701,624,597-16,136,66733178,437,71011,854,7251,222,340-13,077,06534143,290,1259,500,146896,789-10,369,35535112,632,0257,450,496647,328						
171,310,383,67094,463,51626,462,906698,372,832819,299,254181,220,900,47688,084,65323,847,10584,020,226195,951,984191,133,540,35281,790,99721,378,33286,178,389189,347,718201,047,599,41575,511,17919,005,968-94,517,14721962,427,30369,207,42116,715,180-85,92,60122877,926,90662,893,67214,519,917-77,413,58923794,028,10356,543,15712,395,773-66,893,83024710,940,88950,194,79310,363,569-65,58,36125632,411,05044,207,9798,546,657-52,754,63626558,880,26838,687,9076,984,428-45,672,33627489,794,21733,594,0535,637,940-39,231,99328425,246,35028,924,9634,500,418-28,186,94730310,785,90620,860,3722,768,274-23,628,64731261,894,44717,501,4862,138,548-19,640,03532217,815,02914,512,2701,624,597-16,136,86733178,437,71011,854,7251,222,340-10,396,93534143,290,1259,500,146896,789-10,396,93535112,632,0257,450,496647,328-8,907,8243686,421,6865,702,800458,322-6,161,121<						
18         1,220,900,476         88,084,653         23,847,105         84,020,226         199,951,984           19         1,133,540,352         81,790,997         21,378,332         86,178,389         189,347,718           20         1,047,599,415         75,511,179         19,005,968         -         94,517,147           21         962,427,303         69,207,421         16,715,180         -         85,922,601           22         877,926,906         62,893,672         14,519,917         -         77,413,589           23         794,028,103         56,543,157         12,395,773         -         66,938,93,930           24         710,940,889         50,194,793         10,363,569         -         60,558,361           25         632,411,050         44,207,979         8,546,657         -         52,754,636           26         558,880,268         38,687,907         6,984,428         -         45,672,336           27         489,794,217         33,594,053         5,637,940         -         33,425,381           29         364,943,067         24,645,307         3,541,640         -         28,186,947           31         261,894,447         17,501,486         2,138,548         -						
191,133,540,35281,790,99721,378,33286,178,389189,347,718201,047,599,41575,511,17919,005,968-94,517,14721962,427,30369,207,42116,715,180-85,922,60122877,926,90662,893,67214,519,917-77,413,58923794,028,10356,543,15712,395,773-668,938,93024710,940,88950,194,79310,363,569-60,558,36125632,411,05044,207,9798,546,657-52,754,63626558,80,26838,687,9076,984,428-45,672,33627489,794,21733,594,0535,637,940-39,231,99328425,246,35028,924,9634,500,418-28,186,94730310,785,90620,860,3722,768,274-23,628,64731261,894,44717,501,4862,138,548-19,640,35532217,815,02914,512,2701,624,597-16,136,66733178,437,71011,854,7251,222,340-13,077,06534143,290,1259,500,146896,789-10,396,93535112,632,0257,450,496647,328-8,097,8243686,421,6865,702,800458,322-6,61,1213764,230,0554,226,403319,759-4,546,1623846,688,6033,056,570226,431-3,283,0013932,809,7						
20         1.047,599,415         75,511,179         19,005,968         -         94,517,147           21         962,427,303         69,207,421         16,715,180         -         85,922,601           22         877,926,906         62,893,672         14,519,917         -         77,413,589           23         794,028,103         56,543,157         12,395,773         -         68,938,930           24         710,940,889         50,194,793         10,363,569         -         60,558,361           25         632,411,050         44,207,979         8,546,657         -         52,754,636           26         558,880,268         38,687,907         6,984,428         -         45,672,336           27         489,794,217         33,594,053         5,637,940         -         39,231,993           28         425,246,350         28,924,963         4,500,418         -         23,628,647           30         310,785,906         20,860,372         2,768,274         -         23,628,647           31         261,894,447         17,501,486         2,138,548         -         19,640,035           32         217,815,029         14,512,270         1,624,597         -         16,136,867 <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>						
21       962,427,303       69,207,421       16,715,180       -       85,922,601         22       877,926,906       62,893,672       14,519,917       -       77,413,589         23       794,028,103       56,543,157       12,395,773       -       68,938,930         24       710,940,889       50,194,793       10,363,569       -       65,58,861         25       632,411,050       44,207,979       8,546,657       -       52,754,636         26       558,880,268       38,687,907       6,984,428       -       45,672,336         27       489,794,217       33,594,053       5,637,940       -       39,231,993         28       425,246,350       28,924,963       4,500,418       -       33,425,381         29       364,943,067       24,645,307       3,541,640       -       28,186,947         30       310,785,906       20,860,372       2,768,274       -       23,628,647         31       261,894,447       17,501,486       2,138,548       -       19,640,035         32       217,815,029       14,512,270       1,624,597       -       16,136,867         33       178,437,710       11,854,725       1,222,340       -       10,			, ,		86,178,389	
22         877,926,906         62,893,672         14,519,917         -         77,413,589           23         794,028,103         56,543,157         12,395,773         -         668,938,930           24         710,940,889         50,194,793         10,363,569         -         52,754,636           25         632,411,050         44,207,979         8,546,657         -         52,754,636           26         558,880,268         38,687,907         6,984,428         -         45,672,336           27         489,794,217         33,594,053         5,637,940         -         39,231,993           28         425,246,350         28,924,963         4,500,418         -         33,425,381           29         364,943,067         24,645,307         3,541,640         -         28,186,947           30         310,785,906         20,860,372         2,768,274         -         23,628,647           31         261,894,447         17,501,486         2,138,548         -         19,640,035           32         217,815,029         14,512,270         1,624,597         -         16,136,667           33         178,437,710         11,854,725         1,222,340         -         10,396,935					-	
23794,028,10356,543,15712,395,773-688,938,93024710,940,88950,194,79310,363,569-60,558,36125632,411,05044,207,9798,546,657-52,754,63626558,880,26838,687,9076,984,428-45,672,33627489,794,21733,594,0535,637,940-39,231,99328425,246,35028,924,9634,500,418-28,186,94730310,785,90620,860,3722,768,274-23,628,64731261,894,44717,501,4862,138,548-19,640,03532217,815,02914,512,2701,624,597-16,136,86733178,437,71011,854,7251,222,340-13,077,06534143,290,1259,500,146896,789-10,396,93535112,632,0257,450,496647,328-8,097,8243686,421,6865,702,800458,322-6,161,1213764,230,0554,226,403319,759-4,546,1623846,688,6033,056,570226,431-3,283,0013932,809,7572,129,784162,145-2,291,9284022,116,9281,418,258120,824-1,539,8224114,189,587892,19193,640-985,831428,658,722524,55677,493-602,049435,413,667311,91864,496-						
24710,940,88950,194,79310,363,569-60,558,36125632,411,05044,207,9798,546,657-52,754,63626558,880,26838,687,9076,984,428-45,672,33627489,794,21733,594,0535,637,940-39,231,99328425,246,35028,924,9634,500,418-28,186,94730310,785,90620,860,3722,768,274-23,628,64731261,894,44717,501,4862,138,548-19,640,03532217,815,02914,512,2701,624,597-16,136,86733178,437,71011,854,7251,222,340-13,077,06534143,290,1259,500,146896,789-10,396,93535112,632,0257,450,496647,328-8,097,8243686,421,6865,702,800458,322-6,161,1213764,230,0554,226,403319,759-4,546,1623846,688,6033,056,570226,431-3,283,0013932,809,7572,129,784162,145-2,291,9284022,116,9281,418,258120,824-1,539,824114,189,587892,19193,640-85,831428,658,722524,55677,493-602,049435,413,667311,91864,496-1,539,82443,302,282189,37239,054-228,426 <td></td> <td></td> <td></td> <td></td> <td>-</td> <td></td>					-	
25632,411,05044,207,9798,546,657-52,754,63626558,880,26838,687,9076,984,428-45,672,33627489,794,21733,594,0535,637,940-39,231,99328425,246,35028,924,9634,500,418-33,425,38129364,943,06724,645,3073,541,640-28,186,94730310,785,90620,860,3722,768,274-23,628,64731261,894,44717,501,4862,138,548-19,640,03532217,815,02914,512,2701,624,597-16,136,86733178,437,71011,854,7251,222,340-13,077,06534143,290,1259,500,146896,789-10,396,93535112,632,0257,450,496647,328-8,097,8243686,421,6865,702,800458,322-6,161,1213764,230,0554,226,403319,759-4,546,1623846,688,6033,056,570226,431-3,283,0013932,809,7572,129,784162,145-2,291,9284022,116,9281,418,258120,824-1,539,0824114,189,587892,19193,640-985,831428,658,722524,55677,493-602,049435,413,667311,91864,496-376,414443,302,282189,37239,054-228,426 <td></td> <td></td> <td></td> <td></td> <td>-</td> <td></td>					-	
26558,880,26838,687,9076,984,428-45,672,33627489,794,21733,594,0535,637,940-39,231,99328425,246,35028,924,9634,500,418-33,425,38129364,943,06724,645,3073,541,640-28,186,94730310,785,90620,860,3722,768,274-23,628,64731261,894,44717,501,4862,138,548-19,640,03532217,815,02914,512,2701,624,597-16,136,86733178,437,71011,854,7251,222,340-10,396,93534143,290,1259,500,146896,789-10,396,93535112,632,0257,450,496647,328-8,097,8243686,421,6865,702,800458,322-6,161,1213764,230,0554,226,403319,759-4,546,1623846,688,6033,056,570226,431-3,283,0013932,809,7572,129,784162,145-2,291,9284022,116,9281,418,258120,824-1,539,0824114,189,587892,19193,640-985,831428,658,722524,55677,493-602,049435,413,667311,91864,496-376,414443,302,282189,37239,054-228,426451,863,518106,08022,196-128,276 <tr<< td=""><td></td><td></td><td></td><td></td><td></td><td></td></tr<<>						
27489,794,21733,594,0535,637,94039,231,99328425,246,35028,924,9634,500,41833,425,38129364,943,06724,645,3073,541,64028,186,94730310,785,90620,860,3722,768,27423,628,64731261,894,44717,501,4862,138,54819,640,03532217,815,02914,512,2701,624,59716,136,86733178,437,71011,854,7251,222,34013,077,06534143,290,1259,500,146896,78910,396,93535112,632,0257,450,496647,3288,097,8243686,421,6865,702,800458,3226,161,1213764,230,0554,226,403319,7594,546,1623846,688,6033,056,570226,4313,283,0013932,809,7572,129,784162,1452,291,9284022,116,9281,418,258120,8241,539,0824114,189,587892,19193,640985,831428,658,722524,55677,493602,049435,413,667311,91864,496376,414443,302,282189,37239,054228,426451,863,518106,08022,196128,27646928,63652,23011,71263,94247414,34723,0564,93627,99148211,90612,1811,64613,8274992,7535,586158 <td< td=""><td></td><td></td><td></td><td></td><td></td><td></td></td<>						
28425,246,35028,924,9634,500,418-33,425,38129364,943,06724,645,3073,541,640-28,186,94730310,785,90620,860,3722,768,274-23,628,64731261,894,44717,501,4862,138,548-19,640,03532217,815,02914,512,2701,624,597-16,136,86733178,437,71011,854,7251,222,340-13,077,06534143,290,1259,500,146896,789-10,396,93535112,632,0257,450,496647,328-8,097,8243686,421,6865,702,800458,322-6,161,1213764,230,0554,226,403319,759-4,546,1623846,688,6033,056,570226,431-3,283,0013932,809,7572,129,784162,145-2,291,9284022,116,9281,418,258120,824-1,539,0824114,189,587892,19193,640-985,831428,658,722524,55677,493-602,049435,413,667311,91864,496-376,414443,302,282189,37239,054-228,426451,863,518106,08022,196-128,27646928,63652,23011,712-63,94247414,34723,0564,936-27,99148211,906						
29364,943,06724,645,3073,541,640-28,186,94730310,785,90620,860,3722,768,274-23,628,64731261,894,44717,501,4862,138,548-19,640,03532217,815,02914,512,2701,624,597-16,136,86733178,437,71011,854,7251,222,340-13,077,06534143,290,1259,500,146896,789-10,396,93535112,632,0257,450,496647,328-8,097,8243686,421,6865,702,800458,322-6,161,1213764,230,0554,226,403319,759-4,546,1623846,688,6033,056,570226,431-3,283,0013932,809,7572,129,784162,145-2,291,9284022,116,9281,418,258120,824-1539,0824114,189,587892,19193,640-985,831428,658,722524,55677,493-602,049435,413,667311,91864,496-376,414443,302,282189,37239,054-228,426451,863,518106,08022,196-128,276451,863,518106,08022,196-128,27646928,63652,23011,712-63,94247414,34723,0564,936-27,99148211,90612,181<						
30310,785,90620,860,3722,768,274-23,628,64731261,894,44717,501,4862,138,548-19,640,03532217,815,02914,512,2701,624,597-16,136,86733178,437,71011,854,7251,222,340-13,077,06534143,290,1259,500,146896,789-10,396,93535112,632,0257,450,496647,328-8,097,8243686,421,6865,702,800458,322-6,161,1213764,230,0554,226,403319,759-4,546,1623846,688,6033,056,570226,431-3,283,0013932,809,7572,129,784162,145-2,291,9284022,116,9281,418,258120,824-1,539,0824114,189,587892,19193,640-985,831428,658,722524,55677,493-602,049435,413,667311,91864,496-376,414443,302,282189,37239,054-228,426451,863,518106,08022,196-128,276451,863,518106,08022,196-128,27646928,63652,23011,712-63,94247414,34723,0564,936-27,99148211,90612,1811,646-13,8274992,7535,5861585,						
31261,894,44717,501,4862,138,548-19,640,03532217,815,02914,512,2701,624,597-16,136,86733178,437,71011,854,7251,222,340-13,077,06534143,290,1259,500,146896,789-10,396,93535112,632,0257,450,496647,328-8,097,8243686,421,6865,702,800458,322-6,161,1213764,230,0554,226,403319,759-4,546,1623846,688,6033,056,570226,431-3,283,0013932,809,7572,129,784162,145-2,291,9284022,116,9281,418,258120,824-1,539,0824114,189,587892,19193,640-985,831428,658,722524,55677,493-602,049435,413,667311,91864,496-376,414443,302,282189,37239,054-228,426451,863,518106,08022,196-128,27646928,63652,23011,712-63,94247414,34723,0564,936-27,99148211,90612,1811,646-13,8274992,7535,586158-5,744						
32217,815,02914,512,2701,624,597-16,136,86733178,437,71011,854,7251,222,340-13,077,06534143,290,1259,500,146896,789-10,396,93535112,632,0257,450,496647,328-8,097,8243686,421,6865,702,800458,322-6,161,1213764,230,0554,226,403319,759-4,546,1623846,688,6033,056,570226,431-3,283,0013932,809,7572,129,784162,145-2,291,9284022,116,9281,418,258120,824-1,539,0824114,189,587892,19193,640-985,831428,658,722524,55677,493-602,049435,413,667311,91864,496-376,414443,302,282189,37239,054-228,426451,863,518106,08022,196-128,27646928,63652,23011,712-63,94247414,34723,0564,936-27,99148211,90612,1811,646-13,8274992,7535,586158-5,744					-	
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34143,290,1259,500,146896,789-10,396,93535112,632,0257,450,496647,328-8,097,8243686,421,6865,702,800458,322-6,161,1213764,230,0554,226,403319,759-4,546,1623846,688,6033,056,570226,431-3,283,0013932,809,7572,129,784162,145-2,291,9284022,116,9281,418,258120,824-1,539,0824114,189,587892,19193,640-985,831428,658,722524,55677,493-602,049435,413,667311,91864,496-376,414443,302,282189,37239,054-228,426451,863,518106,08022,196-128,27646928,63652,23011,712-63,94247414,34723,0564,936-27,99148211,90612,1811,646-13,8274992,7535,586158-5,744					-	
35112,632,0257,450,496647,328-8,097,8243686,421,6865,702,800458,322-6,161,1213764,230,0554,226,403319,759-4,546,1623846,688,6033,056,570226,431-3,283,0013932,809,7572,129,784162,145-2,291,9284022,116,9281,418,258120,824-1,539,0824114,189,587892,19193,640-985,831428,658,722524,55677,493-602,049435,413,667311,91864,496-376,414443,302,282189,37239,054-228,426451,863,518106,08022,196-128,27646928,63652,23011,712-63,94247414,34723,0564,936-27,99148211,90612,1811,646-13,8274992,7535,586158-5,744					-	
3686,421,6865,702,800458,322-6,161,1213764,230,0554,226,403319,759-4,546,1623846,688,6033,056,570226,431-3,283,0013932,809,7572,129,784162,145-2,291,9284022,116,9281,418,258120,824-1,539,0824114,189,587892,19193,640-985,831428,658,722524,55677,493-602,049435,413,667311,91864,496-376,414443,302,282189,37239,054-228,426451,863,518106,08022,196-128,27646928,63652,23011,712-63,94247414,34723,0564,936-27,99148211,90612,1811,646-13,8274992,7535,586158-5,744	34		9,500,146	896,789	-	
37 $64,230,055$ $4,226,403$ $319,759$ $4,546,162$ $38$ $46,688,603$ $3,056,570$ $226,431$ $ 3,283,001$ $39$ $32,809,757$ $2,129,784$ $162,145$ $ 2,291,928$ $40$ $22,116,928$ $1,418,258$ $120,824$ $ 1,539,082$ $41$ $14,189,587$ $892,191$ $93,640$ $ 985,831$ $42$ $8,658,722$ $524,556$ $77,493$ $ 602,049$ $43$ $5,413,667$ $311,918$ $64,496$ $ 376,414$ $44$ $3,302,282$ $189,372$ $39,054$ $ 228,426$ $45$ $1,863,518$ $106,080$ $22,196$ $ 128,276$ $46$ $928,636$ $52,230$ $11,712$ $ 63,942$ $47$ $414,347$ $23,056$ $4,936$ $ 27,991$ $48$ $211,906$ $12,181$ $1,646$ $ 13,827$ $49$ $92,753$ $5,586$ $158$ $ 5,744$	35			647,328	-	
38         46,688,603         3,056,570         226,431         -         3,283,001           39         32,809,757         2,129,784         162,145         -         2,291,928           40         22,116,928         1,418,258         120,824         -         1,539,082           41         14,189,587         892,191         93,640         -         985,831           42         8,658,722         524,556         77,493         -         602,049           43         5,413,667         311,918         64,496         -         376,414           44         3,302,282         189,372         39,054         -         228,426           45         1,863,518         106,080         22,196         -         128,276           46         928,636         52,230         11,712         -         63,942           47         414,347         23,056         4,936         -         27,991           48         211,906         12,181         1,646         -         13,827           49         92,753         5,586         158         -         5,744	36				-	
3932,809,7572,129,784162,145-2,291,9284022,116,9281,418,258120,824-1,539,0824114,189,587892,19193,640-985,831428,658,722524,55677,493-602,049435,413,667311,91864,496-376,414443,302,282189,37239,054-228,426451,863,518106,08022,196-128,27646928,63652,23011,712-63,94247414,34723,0564,936-27,99148211,90612,1811,646-13,8274992,7535,586158-5,744	37	64,230,055		319,759	-	4,546,162
4022,116,9281,418,258120,824-1,539,0824114,189,587892,19193,640-985,831428,658,722524,55677,493-602,049435,413,667311,91864,496-376,414443,302,282189,37239,054-228,426451,863,518106,08022,196-128,27646928,63652,23011,712-63,94247414,34723,0564,936-27,99148211,90612,1811,646-13,8274992,7535,586158-5,744	38	46,688,603	3,056,570	226,431	-	3,283,001
4114,189,587892,19193,640-985,831428,658,722524,55677,493-602,049435,413,667311,91864,496-376,414443,302,282189,37239,054-228,426451,863,518106,08022,196-128,27646928,63652,23011,712-63,94247414,34723,0564,936-27,99148211,90612,1811,646-13,8274992,7535,586158-5,744	39	32,809,757	2,129,784	162,145	-	2,291,928
428,658,722524,55677,493-602,049435,413,667311,91864,496-376,414443,302,282189,37239,054-228,426451,863,518106,08022,196-128,27646928,63652,23011,712-63,94247414,34723,0564,936-27,99148211,90612,1811,646-13,8274992,7535,586158-5,744	40	22,116,928	1,418,258	120,824	-	1,539,082
435,413,667311,91864,496-376,414443,302,282189,37239,054-228,426451,863,518106,08022,196-128,27646928,63652,23011,712-63,94247414,34723,0564,936-27,99148211,90612,1811,646-13,8274992,7535,586158-5,744	41	14,189,587	892,191	93,640	-	985,831
443,302,282189,37239,054-228,426451,863,518106,08022,196-128,27646928,63652,23011,712-63,94247414,34723,0564,936-27,99148211,90612,1811,646-13,8274992,7535,586158-5,744	42	8,658,722	524,556	77,493	-	602,049
451,863,518106,08022,196-128,27646928,63652,23011,712-63,94247414,34723,0564,936-27,99148211,90612,1811,646-13,8274992,7535,586158-5,744	43	5,413,667	311,918	64,496	-	376,414
46928,63652,23011,712-63,94247414,34723,0564,936-27,99148211,90612,1811,646-13,8274992,7535,586158-5,744	44	3,302,282	189,372	39,054	-	228,426
47414,34723,0564,936-27,99148211,90612,1811,646-13,8274992,7535,586158-5,744	45	1,863,518	106,080	22,196	-	128,276
48211,90612,1811,646-13,8274992,7535,586158-5,744	46	928,636	52,230	11,712	-	63,942
49 92,753 5,586 158 - 5,744	47	414,347	23,056	4,936	-	27,991
	48	211,906	12,181	1,646	-	13,827
50 31,109 1,903 (31) - 1,873	49	92,753	5,586	158	-	5,744
	50	31,109	1,903	(31)	-	1,873

\* Employer contributions as shown may differ substantially from those determined by a funding valuation.



## Single Discount Rate Development Projection of Pension Plan Fiduciary Net Position Beginning July 1, 2022

(Years 1-50)

Year	Projected Beginning Projected Tota r Plan Net Position Contributions		Projected Benefit Payments	Projected Administrative Expenses	Projected Investment Earnings at 6.75%	Projected Ending Plan Net Position
	(a)	(b)	(c)	(d)	(e)	(f)=(a)+(b)-(c)-(d)+(e)
1	\$ 10,708,357,010	\$ 797,388,845	\$ 999,527,902	\$ 10,674,862	\$ 715,748,907	\$ 11,211,291,997
2	11,211,291,997	764,038,431	1,036,964,226	10,177,414	747,363,490	11,675,552,278
3	11,675,552,278	761,120,378	1,074,107,601	9,727,392	777,386,003	12,130,223,667
4	12,130,223,667	770,650,464	1,110,916,668	9,308,802	807,184,586	12,587,833,247
5	12,587,833,247	770,348,567	1,146,901,788	8,908,001	836,881,849	13,039,253,874
6	13,039,253,874	770,672,836	1,181,506,816	8,513,531	866,227,754	13,486,134,117
7	13,486,134,117	771,729,551	1,213,625,121	8,126,457	895,373,809	13,931,485,900
8	13,931,485,900	773,249,053	1,245,293,090	7,739,259	924,447,013	14,376,149,616
9	14,376,149,616	775,222,728	1,277,907,956	7,352,845	953,457,388	14,819,568,931
10	14,819,568,931	778,039,651	1,310,115,403	6,977,791	982,424,910	15,262,940,298
11	15,262,940,298	781,731,960	1,339,825,311	6,614,642	1,011,500,777	15,709,733,081
12	15,709,733,081	786,076,138	1,367,245,923	6,256,063	1,040,905,082	16,163,212,315
13	16,163,212,315	791,118,338	1,392,388,461	5,904,347	1,070,859,297	16,626,897,142
14	16,626,897,142	796,925,073	1,415,011,020	5,559,789	1,101,611,195	17,104,862,601
15	17,104,862,601	803,582,077	1,435,151,193	5,224,862	1,133,437,356	17,601,505,979
16	17,601,505,979	811,062,672	1,453,649,186	4,901,013	1,166,605,770	18,120,624,222
10	18,120,624,222	819,299,254	1,469,955,415	4,586,343	1,201,388,794	18,666,770,512
18	18,666,770,512	195,951,984	1,484,221,898	4,273,152	1,217,095,981	18,591,323,42
19	18,591,323,427	189,347,718	1,496,224,819	3,967,391	1,211,395,715	18,491,874,65
20	18,491,874,650	94,517,147	1,506,183,245	3,666,598	1,201,214,028	18,277,755,98
20	18,277,755,981	85,922,601	1,513,832,037	3,368,496	1,186,231,653	18,032,709,70
21	18,032,709,702				1,169,227,585	
22		77,413,589	1,519,578,380	3,072,744		17,756,699,75
	17,756,699,751 17,449,429,090	68,938,930	1,523,621,576	2,779,098	1,150,191,083	17,449,429,09
24 25		60,558,361	1,525,509,844	2,488,293	1,129,119,054	17,111,108,36
	17,111,108,368	52,754,636	1,522,828,924	2,213,439	1,106,121,458	16,744,942,10
26	16,744,942,100	45,672,336	1,515,607,626	1,956,081	1,081,418,394	16,354,469,12
27	16,354,469,122	39,231,993	1,504,432,729	1,714,280	1,055,226,677	15,942,780,78
28	15,942,780,783	33,425,381	1,490,366,974	1,488,362	1,027,719,409	15,512,070,23
29	15,512,070,238	28,186,947	1,474,062,297	1,277,301	999,020,842	15,063,938,42
30	15,063,938,428	23,628,647	1,455,424,187	1,087,751	969,245,672	14,600,300,80
31	14,600,300,809	19,640,035	1,435,260,248	916,631	938,492,817	14,122,256,78
32	14,122,256,781	16,136,867	1,413,904,403	762,353	906,822,656	13,630,549,54
33	13,630,549,548	13,077,065	1,391,597,576	624,532	874,275,974	13,125,680,47
34	13,125,680,479	10,396,935	1,367,684,372	501,515	840,906,311	12,608,797,83
35	12,608,797,838	8,097,824	1,341,592,736	394,212	806,810,181	12,081,718,89
36	12,081,718,896	6,161,121	1,313,179,598	302,476	772,114,387	11,546,512,33
37	11,546,512,331	4,546,162	1,282,444,084	224,805	736,957,293	11,005,346,89
38	11,005,346,898	3,283,001	1,248,564,337	163,410	701,513,500	10,461,415,65
39	10,461,415,651	2,291,928	1,212,001,589	114,834	665,980,695	9,917,571,85
40	9,917,571,851	1,539,082	1,173,302,173	77,409	630,532,266	9,376,263,61
41	9,376,263,617	985,831	1,132,304,169	49,664	595,337,603	8,840,233,21
42	8,840,233,218	602,049	1,088,656,258	30,306	560,592,516	8,312,741,21
43	8,312,741,219	376,414	1,042,742,794	18,948	526,503,969	7,796,859,86
44	7,796,859,860	228,426	996,152,382	11,558	493,224,061	7,294,148,40
45	7,294,148,407	128,276	949,385,684	6,522	460,840,484	6,805,724,96
46	6,805,724,962	63,942	902,582,349	3,250	429,423,694	6,332,626,99
47	6,332,626,999	27,991	855,951,452	1,450	399,036,543	5,875,738,63
48	5,875,738,632	13,827	809,740,019	742	369,730,301	5,435,742,00
49	5,435,742,000	5,744	764,185,514	325	341,542,634	5,013,104,53
50	5,013,104,539	1,873	719,364,371	109	314,502,498	4,608,244,430

\* Employer contributions as shown may differ substantially from those determined by a funding valuation.



### Single Discount Rate Development Projection of Pension Plan Fiduciary Net Position Beginning July 1, 2022 (Years 51-100)

Year	Projected Beginning Projected Tot Plan Net Position Contribution		Projected Benefit Payments	Projected Administrative Expenses	Projected Investment Earnings at 6.75%	Projected Ending Plan Net Position
	(a)	(b)	(c)	(d)	(e)	(f)=(a)+(b)-(c)-(d)+(e)
51	\$ 4,608,244,430	\$ 335	\$ 675,354,127	\$ 20	\$ 288,635,485	\$ 4,221,526,102
52	4,221,526,102	-	632,235,770	-	263,963,470	3,853,253,802
53	3,853,253,802	-	590,090,017	-	240,504,283	3,503,668,067
54	3,503,668,067	-	548,994,962	-	218,271,557	3,172,944,662
55	3,172,944,662	-	509,027,535	-	197,274,602	2,861,191,729
56	2,861,191,729	-	470,266,165	-	177,518,115	2,568,443,680
57	2,568,443,680	-	432,789,456	-	159,001,808	2,294,656,031
58	2,294,656,031	-	396,673,972	-	141,720,136	2,039,702,196
59	2,039,702,196	-	361,992,280	-	125,662,147	1,803,372,062
60	1,803,372,062	-	328,812,245	-	110,811,404	1,585,371,221
61	1,585,371,221	-	297,196,174	-	97,145,967	1,385,321,014
62	1,385,321,014	-	267,199,996	-	84,638,418	1,202,759,435
63	1,202,759,435	-	238,872,864	-	73,255,942	1,037,142,514
64	1,037,142,514	-	212,255,735	-	62,960,459	887,847,238
65	887,847,238	_	187,379,837	_	53,708,881	754,176,283
66	754,176,283		164,266,123		45,453,442	
67		-		-		635,363,602
	635,363,602	-	142,925,311	-	38,142,078	530,580,369
68	530,580,369	-	123,356,624	-	31,718,869	438,942,614
69	438,942,614	-	105,547,015	-	26,124,580	359,520,179
70	359,520,179	-	89,469,462	-	21,297,323	291,348,040
71	291,348,040	-	75,082,657	-	17,173,330	233,438,713
72	233,438,713	-	62,331,222	-	13,687,784	184,795,275
73	184,795,275	-	51,146,351	-	10,775,678	144,424,602
74	144,424,602	-	41,447,447	-	8,372,650	111,349,805
75	111,349,805	-	33,142,165	-	6,415,828	84,623,468
76	84,623,468	-	26,126,824	-	4,844,702	63,341,346
77	63,341,346	-	20,287,440	-	3,602,020	46,655,926
78	46,655,926	-	15,502,596	-	2,634,606	33,787,935
79	33,787,935	-	11,646,278	-	1,894,042	24,035,699
80	24,035,699	-	8,590,097	-	1,337,228	16,782,830
81	16,782,830	-	6,211,613	-	926,622	11,497,839
82	11,497,839	-	4,399,358	-	630,050	7,728,531
83	7,728,531	-	3,050,061	-	420,417	5,098,886
84	5,098,886	-	2,069,463	-	275,471	3,304,894
85	3,304,894	-	1,374,322	-	177,454	2,108,026
86	2,108,026	-	893,799	-	112,619	1,326,846
87	1,326,846	-	570,014	-	70,638	827,470
88	827,470	-	357,379	-	43,990	514,080
89	514,080	-	221,179	-	27,358	320,259
90	320,259	-	135,906	-	17,106	201,459
91	201,459	-	83,548	-	10,825	128,736
92	128,736	-	51,875	-	6,967	83,829
93	83,829	-	32,892	-	4,566	55,503
94	55,503	-	21,473	-	3,034	37,064
95	37,064	-	14,498	-	2,020	24,586
96	24,586	-	10,103	-	1,324	15,807
97	15,807	-	7,224	-	827	9,410
98	9,410	-	5,253	-	461	4,618
99	4,618	-	4,772	-	153	-
100	-	-	-	-	-	-

\* Employer contributions as shown may differ substantially from those determined by a funding valuation.



## Single Discount Rate Development Present Values of Projected Pension Benefit Payments Beginning July 1, 2022 (Years 1-50)

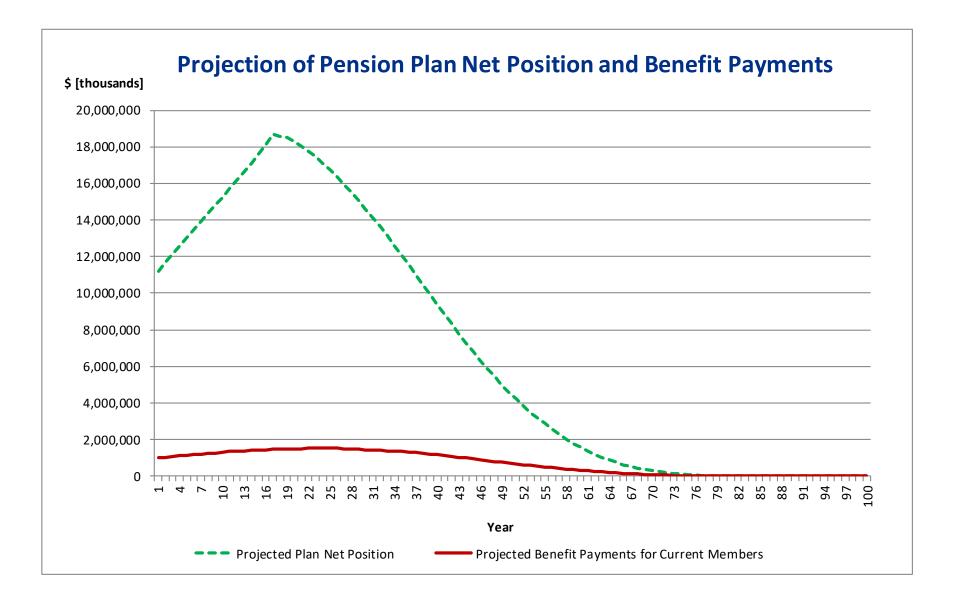
Year	Projected Beginning Plan Net Position	Projected Benefit Payments	Funded Portion of Benefit Payments	Unfunded Portion of Benefit Payments	Present Value of Funded Benefit Payments using Expected Return Rate (v)	Present Value of Unfunded Benefit Payments using Municipal Bond Rate (vf)	Present Value of Benefit Payments using Single Discount Rate (sdr)
(a)	(b)	(c)	(d)	(e)	(f)=(d)*v^((a)5)	(g)=(e)*vf ^((a)5)	(h)=(c)/(1+sdr)^(a5)
1	\$ 10,708,357,010				\$ 967,410,909	\$ -	\$ 967,410,909
2	11,211,291,997	1,036,964,226	1,036,964,226	-	940,182,035	-	940,182,035
3	11,675,552,278	1,074,107,601	1,074,107,601	-	912,279,846	-	912,279,846
4	12,130,223,667	1,110,916,668	1,110,916,668	-	883,881,186	-	883,881,186
5	12,587,833,247	1,146,901,788	1,146,901,788	-	854,812,281	-	854,812,281
6	13,039,253,874	1,181,506,816	1,181,506,816	-	824,921,972	-	824,921,972
7	13,486,134,117	1,213,625,121	1,213,625,121	-	793,767,500	-	793,767,500
8	13,931,485,900	1,245,293,090	1,245,293,090	-	762,978,764	-	762,978,764
9	14,376,149,616	1,277,907,956	1,277,907,956	-	733,453,461	-	733,453,461
10	14,819,568,931	1,310,115,403	1,310,115,403	-	704,392,394	-	704,392,394
11	15,262,940,298	1,339,825,311	1,339,825,311	-	674,816,044	-	674,816,044
12	15,709,733,081	1,367,245,923	1,367,245,923	-	645,083,561	-	645,083,561
12	16,163,212,315	1,392,388,461	1,392,388,461	-	615,406,203	-	615,406,203
13	16,626,897,142	1,415,011,020	1,415,011,020	_	585,859,386	_	585,859,386
15	17,104,862,601	1,435,151,193	1,435,151,193	_	556,625,813	_	556,625,813
15	17,601,505,979	1,453,649,186	1,453,649,186	_	528,150,156		528,150,156
10	18,120,624,222	1,469,955,415	1,469,955,415	_	500,304,123	_	500,304,123
17	18,666,770,512	1,484,221,898	1,484,221,898	_	473,217,580	-	473,217,580
18		1,496,224,819	1,496,224,819	-	446,880,090	-	446,880,090
20	18,591,323,427			_		-	
	18,491,874,650	1,506,183,245	1,506,183,245	-	421,409,265	-	421,409,265
21	18,277,755,981	1,513,832,037	1,513,832,037		396,767,486	-	396,767,486
22	18,032,709,702	1,519,578,380	1,519,578,380	-	373,089,998	-	373,089,998
23	17,756,699,751	1,523,621,576	1,523,621,576	-	350,428,751	-	350,428,751
24	17,449,429,090	1,525,509,844	1,525,509,844	-	328,677,328	-	328,677,328
25	17,111,108,368	1,522,828,924	1,522,828,924	-	307,353,361	-	307,353,361
26	16,744,942,100	1,515,607,626	1,515,607,626	-	286,553,520	-	286,553,520
27	16,354,469,122	1,504,432,729	1,504,432,729	-	266,454,988	-	266,454,988
28	15,942,780,783	1,490,366,974	1,490,366,974		247,272,840	-	247,272,840
29	15,512,070,238	1,474,062,297	1,474,062,297	-	229,103,199	-	229,103,199
30	15,063,938,428	1,455,424,187	1,455,424,187	-	211,902,958	-	211,902,958
31	14,600,300,809	1,435,260,248	1,435,260,248	-	195,753,801	-	195,753,801
32	14,122,256,781	1,413,904,403	1,413,904,403	-	180,647,398	-	180,647,398
33	13,630,549,548	1,391,597,576	1,391,597,576	-	166,554,911	-	166,554,911
34	13,125,680,479	1,367,684,372	1,367,684,372	-	153,342,232	-	153,342,232
35	12,608,797,838	1,341,592,736	1,341,592,736	-	140,905,748	-	140,905,748
36	12,081,718,896	1,313,179,598	1,313,179,598	-	129,200,518	-	129,200,518
37	11,546,512,331	1,282,444,084	1,282,444,084	-	118,198,151	-	118,198,151
38	11,005,346,898	1,248,564,337	1,248,564,337	-	107,799,138	-	107,799,138
39	10,461,415,651	1,212,001,589	1,212,001,589	-	98,025,636	-	98,025,636
40	9,917,571,851	1,173,302,173	1,173,302,173	-	88,895,232	-	88,895,232
41	9,376,263,617	1,132,304,169	1,132,304,169	-	80,364,420	-	80,364,420
42	8,840,233,218	1,088,656,258	1,088,656,258	-	72,380,837	-	72,380,837
43	8,312,741,219	1,042,742,794	1,042,742,794	-	64,944,465	-	64,944,465
44	7,796,859,860	996,152,382	996,152,382	-	58,119,630	-	58,119,630
45	7,294,148,407	949,385,684	949,385,684	-	51,888,588	-	51,888,588
46	6,805,724,962	902,582,349	902,582,349	-	46,211,294	-	46,211,294
47	6,332,626,999	855,951,452	855,951,452	-	41,052,777	-	41,052,777
48	5,875,738,632	809,740,019	809,740,019	-	36,380,706	-	36,380,706
49	5,435,742,000	764,185,514	764,185,514	-	32,162,992	-	32,162,992
50	5,013,104,539	719,364,371	719,364,371	-	28,362,119	-	28,362,119



### Single Discount Rate Development Present Values of Projected Pension Benefit Payments Beginning July 1, 2022 (Concluded) (Years 51-100)

Present Value of Benefit Payments using Single Discount Rate (sdr)	Present Value of Unfunded Benefit Payments using Municipal Bond Rate (vf)	Present Value of Funded Benefit Payments using Expected Return Rate (v)	ifunded Portion of Benefit Payments	l Portion of Payments		Projected Benefit Payments	jected Beginning an Net Position	Year
(h)=(c)/(1+sdr)^(a5)	(g)=(e)*vf ^((a)5)	(f)=(d)*v^((a)5)	(e)	(d)		(c)	(b)	(a)
\$ 24,943,273	\$ -	\$ 24,943,273	-	675,354,127	Ś	675,354,127	\$ 4,608,244,430	\$ 51
21,874,244	-	21,874,244	-	632,235,770	•	632,235,770	4,221,526,102	52
19,125,129	-	19,125,129	-	590,090,017		590,090,017	3,853,253,802	53
16,668,119	-	16,668,119	-	548,994,962		548,994,962	3,503,668,067	54
14,477,435	-	14,477,435	-	509,027,535		509,027,535	3,172,944,662	55
12,529,282	-	12,529,282	-	470,266,165		470,266,165	2,861,191,729	56
10,801,678	_	10,801,678	_	432,789,456		432,789,456	2,568,443,680	57
9,274,284	_	9,274,284	_	396,673,972		396,673,972	2,294,656,031	58
7,928,264		7,928,264		361,992,280		361,992,280	2,039,702,196	59
		6,746,195		328,812,245				60
6,746,195	-		-			328,812,245	1,803,372,062	61
5,711,974	-	5,711,974	-	297,196,174		297,196,174	1,585,371,221	
4,810,737	-	4,810,737	-	267,199,996		267,199,996	1,385,321,014	62
4,028,785	-	4,028,785	-	238,872,864		238,872,864	1,202,759,435	63
3,353,504	-	3,353,504	-	212,255,735		212,255,735	1,037,142,514	64
2,773,284	-	2,773,284	-	187,379,837		187,379,837	887,847,238	65
2,277,465	-	2,277,465	-	164,266,123		164,266,123	754,176,283	66
1,856,286	-	1,856,286	-	142,925,311		142,925,311	635,363,602	67
1,500,826	-	1,500,826	-	123,356,624		123,356,624	530,580,369	68
1,202,945	-	1,202,945	-	105,547,015		105,547,015	438,942,614	69
955,228	-	955,228	-	89,469,462		89,469,462	359,520,179	70
750,938	-	750,938	-	75,082,657		75,082,657	291,348,040	71
583,985	-	583,985	-	62,331,222		62,331,222	233,438,713	72
448,893	-	448,893	-	51,146,351		51,146,351	184,795,275	73
340,768	-	340,768	-	41,447,447		41,447,447	144,424,602	74
255,255	-	255,255	-	33,142,165		33,142,165	111,349,805	75
188,500	-	188,500	-	26,126,824		26,126,824	84,623,468	76
137,115	-	137,115	-	20,287,440		20,287,440	63,341,346	77
98,151	-	98,151	-	15,502,596		15,502,596	46,655,926	78
69,073	-	69,073	-	11,646,278		11,646,278	33,787,935	79
47,726	-	47,726	-	8,590,097		8,590,097	24,035,699	80
32,329	-	32,329	-	6,211,613		6,211,613	16,782,830	81
21,449	-	21,449	-	4,399,358		4,399,358	11,497,839	82
13,930	-	13,930	-	3,050,061		3,050,061	7,728,531	83
8,854	-	8,854	-	2,069,463		2,069,463	5,098,886	84
5,508	-	5,508	-	1,374,322		1,374,322	3,304,894	85
3,356	-	3,356	-	893,799		893,799	2,108,026	86
2,005	-	2,005	-	570,014		570,014	1,326,846	87
1,177	-	1,177	-	357,379		357,379	827,470	88
683	_	683	_	221,179		221,179	514,080	89
393	-	393	_	135,906		135,906	320,259	90
		226						
226	-		-	83,548		83,548	201,459	91 02
132	-	132	-	51,875		51,875	128,736	92
78	-	78	-	32,892		32,892	83,829	93
48	-	48	-	21,473		21,473	55,503	94 05
30	-	30	-	14,498		14,498	37,064	95
20	-	20	-	10,103		10,103	24,586	96
13	-	13	-	7,224		7,224	15,807	97
9	-	9	-	5,253		5,253	9,410	98
8	-	8	-	4,772		4,772	4,618	99
	-	-	_	-		_		100







## **Measurement of the Net OPEB Liability**

Regarding the sensitivity of the net OPEB liability to changes in the Single Discount Rate, the following presents the plan's net OPEB liability, calculated using a Single Discount Rate of 6.75%, as well as what the plan's net OPEB liability would be if it were calculated using a Single Discount Rate that is one percent lower or one percent higher:

## Sensitivity of Net OPEB Liability to the Single Discount Rate Assumption

		_				
Measurement				Single		
Date		Current Single		<b>Discount Rate</b>		
June 30	1% Decrease	Discount Rate	1% Increase	Assumption		
2016	\$ 526,463,381	\$ 484,105,215	\$ 447,486,556	7.25%		
2017	497,606,504	457,233,955	422,254,184	7.25%		
2018	476,527,879	457,845,765	405,513,854	7.25%		
2019	475,523,490	438,411,116	406,162,814	7.25%		
2020	475,306,336	437,708,995	405,067,127	6.75%		
2021	435,328,116	400,456,828	370,116,638	6.75%		
2022	410,261,439	377,887,685	349,692,649	6.75%		

GASB No. 74 requires the sensitivity of the Net OPEB Liability to the healthcare cost trend assumption. Since the medical subsidy benefits are a fixed stipend, there is no sensitivity to change in the healthcare cost trend assumption.



## Statement of Fiduciary Net Position as of June 30, 2022 OPEB\*

#### Assets

Cash and Deposits	\$	1,008,000		
Receivables				
Due from Brokers for Securities Sold	\$	42,000		
Accrued Interest and Other Dividends		52,000		
Contributions		4,347,000		
Accounts Receivable - Other		34,000		
Total Receivables	\$	4,475,000		
Investments				
Fixed Income	\$	7,601,000		
Domestic Equities		15,549,000		
International Equities		2,555,000		
Real Estate	5,455,000			
Other	8,466,000			
Total Investments	\$	39,626,000		
Total Assets	\$	45,109,000		
Liabilities				
Payables				
Accounts Payable - Purchase of Investments Due to Brokers	\$	62,000		
Accrued Expenses		-		
Accounts Payable - Other		55,000		
Total Liabilities	\$	117,000		
Net Position Restricted for OPEB	\$	44,991,847		

\* Detailed breakdown provided in thousands. Total is the actual amount on the balance sheet.



## Statement of Changes in Fiduciary Net Position for Year Ended June 30, 2022 OPEB

#### Additions

Contributions	
Employer	\$ 42,064,183
Nonemployer contributing entities	0
Active Employees	0
Other	 0
Total Contributions	\$ 42,064,183
Investment Income	
Net Appreciation/(Depreciation) in Fair Value of	
Investments	\$ (2,969,270)
Interest and Dividends	362,830
Less Investment Expense	 (213,011)
Net Investment Income/(Loss)	\$ (2,819,451)
Other	\$ 0
Total Additions	\$ 39,244,732
Deductions	
Benefit Payments	\$ 43,809,125
OPEB Plan Administrative Expense	234,185
Other	 4,530
Total Deductions	\$ 44,047,840
Net Increase/(Decrease) in Net Position	\$ (4,803,108)
Net Position Restricted for OPEB	
Beginning of Year	\$ 49,794,955



## Schedules of Required Supplementary Information Schedule of Changes in Net OPEB Liability and Related Ratios Ultimately 10 Fiscal Years Will Be Displayed

Fiscal year ending June 30,	 2022	2021	2020	2019	2018	2017		2016
Total OPEB liability								
Service cost	\$ 590,608	\$ 730,979	\$ 740,258	\$ 856,820	\$ 983,597	\$ 1,099,249	\$	1,217,827
Interest on the total OPEB liability	28,933,370	30,512,423	32,785,640	34,197,051	34,247,087	35,235,164		36,541,607
Changes of benefit terms	0	0	0	0	-	-		-
Difference between expected and								
actual experience	(13,087,104)	(9,912,340)	(10,218,847)	(7,156,217)	12,666,860	-		(4,537,602)
Changes of assumptions	0	0	22,675,585	0	-	-		-
Benefit payments, including refunds								
of employee contributions	 (43,809,125)	(45,499,366)	(46,816,286)	(47,797,941)	(49,250,676)	(50,559,778)		(51,805,133)
Net change in total OPEB liability	(27,372,251)	(24,168,304)	(833,650)	(19,900,287)	(1,353,132)	(14,225,365)		(18,583,301)
Total OPEB liability - beginning	450,251,783	474,420,087	475,253,737	495,154,024	496,507,156	510,732,521		529,315,822
Total OPEB liability - ending (a)	\$ 422,879,532	\$ 450,251,783	\$ 474,420,087	\$ 475,253,737	\$ 495,154,024	\$ 496,507,156	\$	510,732,521
Plan fiduciary net position								
Contributions - Employer	\$ 42,064,183	\$ 48,054,804	\$ 46,459,763	\$ 45,509,112	\$ 44,194,281	\$ 59,196,827	\$	58,174,145
Nonemployer contributing entities								
contributions	0	0	0	0	0	0		0
Contributions - Member	0	0	0	0	0	0		0
OPEB plan net investment income	(2,819,451)	10,703,398	397,486	1,980,805	3,128,478	4,045,745		148,536
Benefit payments, including refunds								
of employee contributions	(43,809,125)	(45,499,366)	(46,816,286)	(47,797,941)	(49,250,676)	(50,559,778)		(51,805,133)
OPEB plan administrative expense	(234,185)	(171,779)	(169,016)	(151,772)	(33,144)	(31,713)		(16,951)
Other custodial, professional and non-investment								
expenses, and contributions other than for								
contribution effort	 (4,530)	(3,194)	(3,476)	(5,842)	(3,881)	(5,186)		(3,030)
Net change in plan fiduciary net position	(4,803,108)	13,083,863	(131,529)	(465,638)	(1,964,942)	12,645,895		6,497,567
Plan fiduciary net position - beginning	 49,794,955	36,711,092	36,842,621	37,308,259	39,273,201	26,627,306		20,129,739
Plan fiduciary net position - ending (b)	\$ 44,991,847	\$ 49,794,955	\$ 36,711,092	\$ 36,842,621	\$ 37,308,259	\$ 39,273,201	\$	26,627,306
Net OPEB liability - ending (a) - (b)	\$ 377,887,685	\$ 400,456,828	\$ 437,708,995	\$ 438,411,116	\$ 457,845,765	\$ 457,233,955	\$	484,105,215
Plan fiduciary net position as a percentage								
of total OPEB liability	10.64 %	11.06 %	7.74 %	7.75 %	7.53 %	7.91 %		5.21 %
Covered-Employee Payroll*	\$ 3,077,583,995	\$ 2,972,968,504	\$ 2,894,708,279	\$ 2,825,006,022	\$ 2,752,235,069	\$ 2,667,611,532	\$ 3	2,601,403,606
Net OPEB liability as a percentage								
of covered-employee payroll	12.28 %	13.47 %	15.12 %	15.52 %	16.64 %	17.14 %		18.61 %
Notes to Schedule:								

\* Based on the June 30 census data for the applicable fiscal year.

Covered-Employee payroll for employer's disclosure may differ.



## Schedules of Required Supplementary Information Schedule of the Employers' Net OPEB Liability Ultimately 10 Fiscal Years Will Be Displayed

Total				Net OPEB Liability		
FY Ending	OPEB	Plan Net	Net OPEB	as a % of Total	Covered	as a % of
June 30,	Liability	Position	Liability	OPEB Liability	Payroll*	Covered Payroll
2016	\$ 510,732,521	\$ 26,627,306	\$ 484,105,215	5.21 %	\$ 2,601,403,606	18.61 %
2017	496,507,156	39,273,201	457,233,955	7.91 %	2,667,611,532	17.14 %
2018	495,154,024	37,308,259	457,845,765	7.53 %	2,752,235,069	16.64 %
2019	475,253,737	36,842,621	438,411,116	7.75 %	2,825,006,022	15.52 %
2020	474,420,087	36,711,092	437,708,995	7.74 %	2,894,708,279	15.12 %
2021	450,251,783	49,794,955	400,456,828	11.06 %	2,972,968,504	13.47 %
2022	422,879,532	44,991,847	377,887,685	10.64 %	3,077,583,995	12.28 %

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



## Schedule of OPEB Contributions Ultimately 10 Fiscal Years Will Be Displayed

FY Ending	Actuarially Determined	Actual	Contribution Deficiency	Covered	Actual Contribution as a % of
June 30,	Contribution*	Contribution*	Contribution* (Excess)		Covered Payroll
2016	\$ 58,174,145	\$ 58,174,145	\$-	\$ 2,601,403,606	2.24 %
2017	59,196,827	59,196,827	-	2,667,611,532	2.22 %
2018	44,194,281	44,194,281	-	2,752,235,069	1.61 %
2019	45,509,112	45,509,112	-	2,825,006,022	1.61 %
2020	46,459,763	46,459,763	-	2,894,708,279	1.60 %
2021	48,054,804	48,054,804	-	2,972,968,504	1.62 %
2022	42,064,183	42,064,183	-	3,077,583,995	1.37 %

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

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



### **Notes to Schedule of OPEB Contributions**

Valuation Date	Actuarially determined contribution rates for the 2022-2023 biennium
	were determined based on the June 30, 2019 actuarial valuation.
	Actuarially determined contribution rates for the 2024-2025 biennium
	were determined based on the June 30, 2021 actuarial valuation. Future
	employer contribution rates for the purposes of the projection in this
	report are based on the statutory requirement of solvency funding with
	the Board's funding policy to maintain a 20% margin (50% for Teachers).

#### Methods and Assumptions:

Actuarial Cost Method	Entry Age Normal
Amortization Method	Level Percentage of Payroll, Closed
Remaining Amortization Period	Not applicable under statutory funding
Asset Valuation Method	5-Year smoothed market; 20% corridor
Price Inflation	2.0% per year
Wage Inflation	2.75% per year (2.25% for Teachers) in the 2019 valuation
Salary Increases	5.4% average, including inflation
Investment Rate of Return	6.75% per year, net of OPEB plan investment expense, including inflation for determining solvency contributions
Funding Discount Rate	2.75% per year
Retirement Age	Experience-based table of rates that are specific to the type of eligibility condition. Based on the 2015-2019 experience study.
Mortality	Pub-2010 Healthy Retiree Mortality Tables with credibility adjustments for each group (Police and Fire combined) and projected fully generational mortality improvements using Scale MP-2019.
Health Care Trend Rates	Not applicable, given that the benefits are fixed stipends.
Aging Factors	Not applicable, given that the benefits are fixed stipends.
Other Information:	
Notes	The Board has adopted new assumptions based on the 2015-2019 experience study effective for employer contributions in the 2022-23 and the 2024-25 bienniums.

NOTE: A full list of actuarial assumptions and the summary of benefit provisions can be found starting on page 59. Actuarial assumptions for contributions made in the year ending June 30, 2022 can be found in the June 30, 2019 actuarial valuation report.



## Summary of OPEB Participant Data As of June 30, 2021

For purposes of GASB Statement No. 74 disclosures, the System has adopted a roll-forward methodology for accounting purposes. This means that the June 30, 2022 Total OPEB Liability is based on a roll-forward of the June 30, 2021 valuation. A brief summary of the June 30, 2021 census data is shown below.

Inactive Plan Members or Beneficiaries Currently Receiving Benefits	9,375
Inactive Plan Members Entitled to But Not Yet Receiving Benefits	-
Active Plan Members	1,767
Total Plan Members	11,142

Additional information regarding the covered population as of June 30, 2021 may be found in the ACFR Schedules, GASB Statement Nos. 67 and 74 Plan Reporting and Accounting Schedules report issued October 29, 2021.



### **Calculation of the Single Discount Rate for OPEB**

GASB Statement No. 74 includes a specific requirement for the discount rate that is used for the purpose of the measurement of the Total OPEB Liability. This rate considers the ability of the fund to meet benefit obligations in the future. To make this determination, employer contributions, employee contributions, benefit payments, expenses and investment returns are projected into the future. The Plan Net Position (assets) in future years can then be determined and compared to its obligation to make benefit payments in those years. As long as assets are projected to be on hand in a future year, the assumed valuation discount rate is used. In years where assets are not projected to be sufficient to meet benefit payments, the use of a municipal bond rate is required, as described in the following paragraph.

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

For the purpose of this valuation, the expected rate of return on OPEB plan investments is 6.75%; the municipal bond rate is 3.69%; and the resulting Single Discount Rate is 6.75%.

The tables in this section provide background for the development of the Single Discount Rate.

The **Projection of Contributions** table shows the development of expected contributions in future years. Since the medical subsidy plan is closed to new hires, normal cost contributions for future hires are not included.

The **Projection of Plan Fiduciary Net Position** table shows the development of expected asset levels in future years.

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

The projections in this report are strictly for the purpose of determining the GASB single discount rate and are different from a funding projection for the ongoing plan.



# Single Discount Rate Development Projection of OPEB Plan Net Position Beginning July 1, 2022

(Years 1-50)

Year	Projected Beginning Plan Net Position	Projected Total Contributions*	Projected Benefit Payments	Projected Administrative Expenses		Projected Investment Earnings at 6.750%	Projected Ending Plan Net Position
	(a)	(b)	(c)	(d)		(e)	(f)=(a)+(b)-(c)-(d)+(e)
1	\$44,991,847	\$ 44,674,640	\$ 46,237,522	\$ 234,185	\$	2,977,289	\$ 46,172,069
2	46,172,069	35,422,301	45,358,252	225,561		2,779,263	38,789,820
3	38,789,820	36,325,277	44,296,681	216,981		2,346,467	32,947,903
4	32,947,903	30,337,900	43,046,896	208,425		1,795,139	21,825,621
5	21,825,621	27,245,938	41,720,215	199,800		986,066	8,137,610
6	8,137,610	39,642,559	40,257,534	190,794		522,538	7,854,379
7	7,854,379	38,104,092	38,723,400	181,682		503,579	7,556,966
8	7,556,966	36,445,358	37,076,229	172,943		483,409	7,236,561
9	7,236,561	34,748,277	35,377,027	164,496		462,133	6,905,448
10	6,905,448	32,984,874	33,612,989	156,192		440,080	6,561,221
11	6,561,221	31,189,462	31,810,782	147,955		417,343	6,209,290
12	6,209,290	29,406,812	30,012,598	139,741		394,376	5,858,140
13	5,858,140	27,624,988	28,215,782	131,443		371,447	5,507,349
14	5,507,349	25,853,003	26,427,521	122,929		348,592	5,158,495
15	5,158,495	24,074,003	24,635,058	114,146		325,782	4,809,077
16	4,809,077	22,370,431	22,905,303	105,028		303,369	4,472,545
17	4,472,545	20,669,585	21,188,986	95,519		281,482	4,139,107
18	4,139,107	19,044,815	19,539,086	85,423		260,145	3,819,558
19	3,819,558	17,513,906	17,979,846	74,803		239,868	3,518,683
20	3,518,683	16,049,610	16,492,581	64,475		220,664	3,231,900
21	3,231,900	14,688,624	15,104,071	55,085		202,532	2,963,901
22	2,963,901	13,421,149	13,810,165	46,710		185,598	2,713,772
23	2,713,772	12,243,649	12,607,112	39,330		169,807	2,480,786
24	2,480,786	11,164,817	11,501,564	32,921		155,181	2,266,299
25	2,266,299	10,174,701	10,486,357	27,451		141,717	2,068,910
26	2,068,910	9,270,029	9,557,537	22,795		129,350	1,887,956
27	1,887,956	8,447,240	8,711,548	18,855		118,036	1,722,828
28	1,722,828	7,696,946	7,939,997	15,524		107,707	1,571,960
29	1,571,960	7,012,146	7,235,661	12,706		98,265	1,434,005
30	1,434,005	6,387,839	6,593,185	10,336		89,635	1,307,958
31	1,307,958	5,818,030	6,006,677	8,360		81,747	1,192,698
32	1,192,698	5,296,882	5,470,276	6,736		74,527	1,087,096
33	1,087,096	4,818,870	4,978,375	5,394		67,905	990,102
34	990,102	4,378,951	4,525,840	4,282		61,813	900,744
35	900,744	3,972,809	4,108,215	3,366		56,193	818,165
36	818,165	3,596,815	3,721,716	2,622		50,993	741,634
37	741,634	3,248,034	3,363,253	2,025		46,168	670,559
38	670,559	2,924,123	3,030,349	1,538		41,685	604,481
39	604,481	2,623,230	2,721,055	1,147		37,517	543,025
40	543,025	2,343,943	2,433,865	846		33,641	485,899
41	485,899	2,085,183	2,167,619	615		30,041	432,888
42	432,888	1,846,081	1,921,407	439		26,705	383,828
43	383,828	1,625,920	1,694,484	299		23,622	338,588
44	338,588	1,424,066	1,486,205	191		20,785	297,044
45	297,044	1,239,927	1,295,967	115		18,186	259,075
46	259,075	1,072,880	1,123,145	63		15,817	224,564
47	224,564	922,254	967,074	30		13,669	193,383
48	193,383	787,306	827,021	11		11,735	165,392
49	165,392	667,226	702,184	3		10,003	140,434
50	140,434	561,166	591,720	1		8,465	118,343

\* Employer contributions as shown may differ substantially from those determined by a funding valuation.



# Single Discount Rate Development Projection of OPEB Plan Net Position Beginning July 1, 2022

(Years 51-100)

	Projected Beginning	Projected Total	Projected Benefit	Projected Administrative	Projected Investment	Projected Ending
Year	Plan Net Position	Contributions* (b)	Payments	Expenses	Earnings at 6.750%	Plan Net Position
51	(a) \$ 118,343	(D) \$ 468,219	(c) \$ 494,725	(d) \$ 0	(e) \$ 7,108	(f)=(a)+(b)-(c)-(d)+(e) \$
52	98,945	387,439	410,255	, О О	5,921	82,051
53	82,051	317,858	337,334	0	4,892	67,467
55	67,467	258,487	274,967	0	4,007	54,993
55	54,993	208,342	222,158	0	3,253	44,432
56	44,432	166,455	177,920	0	2,618	35,584
57	35,584	131,873	141,289	0	2,010	28,258
58	28,258	103,679	111,325	0	1,654	22,265
59	22,265	80,995	87,132	0	1,299	17,426
60	17,426	62,996	67,864	0	1,015	13,573
61	13,573	48,917	52,732	0	789	10,546
62	10,546	38,061	41,018	0	614	8,204
63	8,204	29,808	32,075	0	478	6,415
64	6,415	23,614	25,337	0	376	5,067
65	5,067	19,015	20,317	0	299	4,063
66	4,063	15,625	16,608	0	242	3,322
67	3,322	13,133	13,878	0	199	2,776
68	2,776	11,294	11,865	0	168	2,373
69	2,373	9,923	10,368	0	145	2,074
70	2,074	8,877	9,232	0	128	1,846
71	1,846	8,057	8,349	0	115	1,670
72	1,670	7,393	7,639	0	105	1,528
73	1,528	6,838	7,051	0	96	1,410
74	1,410	6,360	6,549	0	89	1,310
75	1,310	5,936	6,107	0	83	1,221
76	1,221	5,549	5,707	0	77	1,141
77	1,141	5,192	5,338	0	72	1,068
78	1,068	4,856	4,993	0	68	999
79	999	4,538	4,666	0	63	933
80	933	4,233	4,354	0	59	871
81	871	3,938	4,054	0	55	811
82	811	3,653	3,763	0	51	753
83	753	3,377	3,481	0	47	696
84	696	3,109	3,208	0	44	642
85	642	2,848	2,941	0	40	588
86	588	2,592	2,681	0	37	536
87	536	2,342	2,426	0	33	485
88	485	2,099	2,179	0	30	436
89	436	1,864	1,939	0	27	388
90	388	1,638	1,708	0	24	342
91	342	1,421	1,486	0	21	297
92	297	1,214	1,275	0	18	255
93	255	1,021	1,076	0	15	215
94	215	844	894	0	13	179
95	179	685	728	0	11	146
96	146	543	581	0	9	116
97	116	421	453	0	7	91
98	91	319	346	0	5	69
99	69	0	45	0	3	28
100	28	0	0	0	2	30

\* Employer contributions as shown may differ substantially from those determined by a funding valuation.



## Single Discount Rate Development Present Values of Projected OPEB Benefits Beginning July 1, 2022

(Years 1-50)

Year	Projected Beginning Plan Net Position	Projected Benefit Payments	Funded Portion of Projected Benefit Payments	Unfunded Portion of Projected Benefit Payments	Present Value of Funded Benefit Payments Using Expected Return Rate (v)	Present Value of Unfunded Benefit Payments Using Municipal Bond Rate (vf)	Present Value of All Benefit Payments Using Single Discount Rate (SDR)	
(a)	(b)	(c)	(d)	(e)	(f)=(d)*v^((a)5)	(g)=(e)*vf ^((a)5)	(h)=(c)/(1+SDR)^(a5)	
1	\$ 44,991,847	\$ 46,237,522	\$ 46,237,522	\$ 0	\$ 44,751,811	\$ 0	\$ 44,751,811	
2	46,172,069	45,358,252	45,358,252	0	41,124,865	0	41,124,865	
3	38,789,820	44,296,681	44,296,681	0	37,622,831	0	37,622,831	
4	32,947,903	43,046,896	43,046,896	0	34,249,501	0	34,249,501	
5	21,825,621	41,720,215	41,720,215	0	31,095,036	0	31,095,036	
6	8,137,610	40,257,534	40,257,534	0	28,107,603	0	28,107,603	
7	7,854,379	38,723,400	38,723,400	0	25,326,912	0	25,326,912	
8	7,556,966	37,076,229	37,076,229	0	22,716,239	0	22,716,239	
9	7,236,561	35,377,027	35,377,027	0	20,304,595	0	20,304,595	
10	6,905,448	33,612,989	33,612,989	0	18,072,251	0	18,072,251	
11	6,561,221	31,810,782	31,810,782	0	16,021,809	0	16,021,809	
12	6,209,290	30,012,598	30,012,598	0	14,160,315	0	14,160,315	
13	5,858,140	28,215,782	28,215,782	0	12,470,778	0	12,470,778	
14	5,507,349	26,427,521	26,427,521	0	10,941,831	0	10,941,831	
15	5,158,495	24,635,058	24,635,058	0	9,554,749	0	9,554,749	
16	4,809,077	22,905,303	22,905,303	0	8,322,117	0	8,322,117	
17	4,472,545	21,188,986	21,188,986	0	7,211,741	0	7,211,741	
18	4,139,107	19,539,086	19,539,086	0	6,229,688	0	6,229,688	
19	3,819,558	17,979,846	17,979,846	0	5,370,072	0	5,370,072	
20	3,518,683	16,492,581	16,492,581	0	4,614,396	0	4,614,396	
21	3,231,900	15,104,071	15,104,071	0	3,958,698	0	3,958,698	
22	2,963,901	13,810,165	13,810,165	0	3,390,700	0	3,390,700	
23	2,713,772	12,607,112	12,607,112	0	2,899,601	0	2,899,601	
24	2,480,786	11,501,564	11,501,564	0	2,478,059	0	2,478,059	
25	2,266,299	10,486,357	10,486,357	0	2,116,467	0	2,116,467	
26	2,068,910	9,557,537	9,557,537	0	1,807,028	0	1,807,028	
27	1,887,956	8,711,548	8,711,548	0	1,542,931	0	1,542,931	
28	1,722,828	7,939,997	7,939,997	0	1,317,357	0	1,317,357	
29	1,571,960	7,235,661	7,235,661	0	1,124,588	0	1,124,588	
30	1,434,005	6,593,185	6,593,185	0	959,937	0	959,937	
31	1,307,958	6,006,677	6,006,677	0	819,245	0	819,245	
32	1,192,698	5,470,276	5,470,276	0	698,909	0	698,909	
33	1,087,096	4,978,375	4,978,375	0	595,842	0	595,842	
34	990,102	4,525,840	4,525,840	0	507,429	0	507,429	
35	900,744	4,108,215	4,108,215	0	431,480	0	431,480	
36	818,165	3,721,716	3,721,716	0	366,171	0	366,171	
37	741,634	3,363,253	3,363,253	0	309,979	0	309,979	
38	670,559	3,030,349	3,030,349	0	261,636	0	261,636	
39	604,481	2,721,055	2,721,055	0	220,077	0	220,077	
40	543,025	2,433,865	2,433,865	0	184,402	0	184,402	
41	485,899	2,167,619	2,167,619	0	153,845	0	153,845	
42	432,888	1,921,407	1,921,407	0	127,747	0	127,747	
43	383,828	1,694,484	1,694,484	0	105,536	0	105,536	
44	338,588	1,486,205	1,486,205	0	86,711	0	86,711	
45	297,044	1,295,967	1,295,967	0	70,831	0	70,831	
46	259,075	1,123,145	1,123,145	0	57,504	0	57,504	
40	224,564	967,074	967,074	0	46,382	0	46,382	
48	193,383	827,021	827,021	0	37,157	0	37,157	
49	165,392	702,184	702,184	0	29,553	0	29,553	
50	140,434	591,720	591,720	0	23,330	0	23,330	
	1.0,.04	202,720	202,.20	Ŭ	20,000	0	20,000	

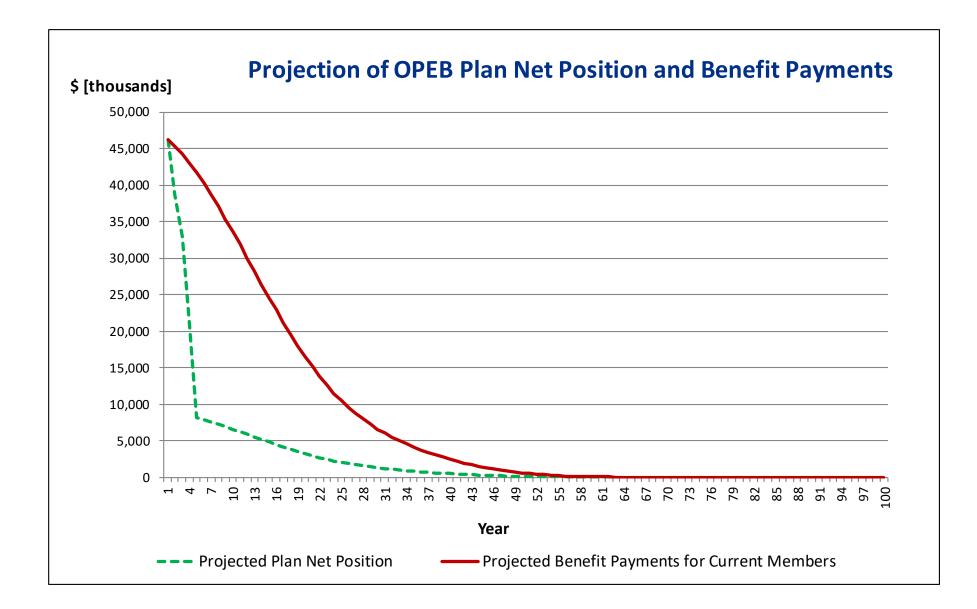


# Single Discount Rate Development Present Values of Projected OPEB Benefits Beginning July 1, 2022

(Years 50-100)

Year	Projected Beginning Plan Net Position	Projected Benefit Payments	Funded Portion of Projected Benefit Payments	Unfunded Portion of Projected Benefit Payments	Present Value of Funded Benefit Payments Using Expected Return Rate (v)	Present Value of Unfunded Benefit Payments Using Municipal Bond Rate (vf)	Present Value of All Benefit Payments Using Single Discount Rate (SDR)
(a)	(b)	(c)	(d)	(e)	(f)=(d)*v^((a)5)	(g)=(e)*vf ^((a)5)	(h)=(c)/(1+SDR)^(a5)
51	\$ 118,343	\$ 494,725	\$ 494,725	\$ 0	\$ 18,272	\$ 0	\$ 18,272
52	98,945	410,255	410,255	0	14,194	0	14,194
53	82,051	337,334	337,334	0	10,933	0	10,933
54	67,467	274,967	274,967	0	8,348	0	8,348
55	54,993	222,158	222,158	0	6,318	0	6,318
56	44,432	177,920	177,920	0	4,740	0	4,740
57	35,584	141,289	141,289	0	3,526	0	3,526
58	28,258	111,325	111,325	0	2,603	0	2,603
59	22,265	87,132	87,132	0	1,908	0	1,908
60	17,426	67,864	67,864	0	1,392	0	1,392
61	13,573	52,732	52,732	0	1,013	0	1,013
62	10,546	41,018	41,018	0	738	0	738
63	8,204	32,075	32,075	0	541	0	541
64	6,415	25,337	25,337	0	400	0	400
65	5,067	20,317	20,317	0	301	0	301
66	4,063	16,608	16,608	0	230	0	230
67	3,322	13,878	13,878	0	180	0	180
68	2,776	11,865	11,865	0	144	0	144
69	2,373	10,368	10,368	0	118	0	118
70	2,074	9,232	9,232	0	99	0	99
71	1,846	8,349	8,349	0	83	0	83
72	1,670	7,639	7,639	0	72	0	72
73	1,528	7,051	7,051	0	62	0	62
74	1,410	6,549	6,549	0	54	0	54
75	1,310	6,107	6,107	0	47	0	47
76	1,221	5,707	5,707	0	41	0	41
77	1,141	5 <i>,</i> 338	5 <i>,</i> 338	0	36	0	36
78	1,068	4,993	4,993	0	32	0	32
79	999	4,666	4,666	0	28	0	28
80	933	4,354	4,354	0	24	0	24
81	871	4,054	4,054	0	21	0	21
82	811	3,763	3,763	0	18	0	18
83	753	3,481	3,481	0	16	0	16
84	696	3,208	3,208	0	14	0	14
85	642	2,941	2,941	0	12	0	12
86	588	2,681	2,681	0	10	0	10
87	536	2,426	2,426	0	9	0	9
88	485	2,179	2,179	0	7	0	7
89	436	1,939	1,939	0	6	0	6
90	388	1,708	1,708	0	5	0	5
91	342	1,486	1,486	0	4	0	4
92	297	1,275	1,275	0	3	0	3
93	255	1,076	1,076	0	3	0	3
94	215	894	894	0	2	0	2
95	179	728	728	0	2	0	2
96	146	581	581	0	1	0	1
97	116	453	453	0	1	0	1
98	91	346	346	0	1	0	1
99	69	45	45	0	0	0	0
100	28	0	0	0	0	0	0
				Totals	\$ 425,074,886	ş 0	\$ 425,074,886







**SECTION C** 

**ACTUARIAL SECTION** 

# Summary of Changes from June 30, 2021 to June 30, 2022 (\$ in Millions)

	Pension								
	Employees	Teachers	Police	Fire	Total				
Reconciliation of UAAL									
Expected	\$1,842.6	\$2,378.8	\$966.1	\$414.4	\$5 <i>,</i> 601.9				
Impact of (Gain)Loss	53.8	(6.7)	50.4	(5.6)	91.9				
Impact of Method Change	0.0	0.0	0.0	0.0	0.0				
Impact of Plan Change	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>				
Total	\$1,896.4	\$2,372.1	\$1,016.5	\$408.8	\$5,693.8				
Funded %									
Prior Valuation	64.8 %	60.7 %	67.5 %	70.3 %	64.2 %				
Expected Change	1.6 %	1.8 %	1.7 %	1.5 %	1.7 %				
Impact of Gain(Loss)	(0.6)%	0.1 %	(1.1)%	0.3 %	(0.3)%				
Impact of Method Change	0.0 %	0.0 %	0.0 %	0.0 %	0.0 %				
Impact of Plan Change	<u>0.0 %</u>	<u>0.0 %</u>	<u>0.0 %</u>	<u>0.0 %</u>	<u>0.0</u> <u>%</u>				
Total	65.8 %	62.6 %	68.1 %	72.1 %	65.6 %				

	Medical Subsidy									
	State Employees	Political Subdivision Employees	Teachers	Police & Fire	Total					
Reconciliation of UAAL										
Expected	\$44.3	\$34.2	\$190.2	\$275.5	\$544.2					
Impact of (Gain)Loss	(5.2)	(1.7)	(2.8)	(12.9)	(22.6)					
Impact of Method Change	0.0	0.0	0.0	0.0	0.0					
Impact of Plan Change	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>					
Total	\$39.1	\$32.5	\$187.4	\$262.6	\$521.6					

The pension funded percent of 65.6% is the ratio of the actuarial value of assets to the actuarial accrued liability for NHRS in total. That ratio is 64.7% based on market value of assets.

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



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

Year Ended June 30:	2019	2020	2021	2022	2023	2024	2025	2026
A. Actuarial Value Beginning of Year	\$ 8,747,715,939	\$ 9,158,579,327	\$ 9,485,963,700	\$ 10,312,682,279				
B. Market Value End of Year	9,207,615,151	9,134,075,534	11,573,674,295	10,753,348,857				
C. Market Value Beginning of Year	8,874,175,235	9,207,615,151	9,134,075,534	11,573,674,295				
D. Non-Investment Net Cash Flow*	(157,374,111)	(175,559,940)	(189,334,651)	(127,984,808)				
E. Investment Income								
E1. Market Total: B - C - D	490,814,027	102,020,323	2,628,933,412	(692,340,630)				
E2. Assumed Rate	7.25%	6.75%	6.75%	6.75%				
E3. Amount for Immediate Recognition	628,504,594	612,278,957	633,912,505	691,786,567				
E4. Amount for Phased-In Recognition: E1-E3	(137,690,567)	(510,258,634)	1,995,020,907	(1,384,127,197)				
F. Phased-In Recognition of Investment Income								
F1. Current Year: 0.20 x E4	(27,538,113)	(102,051,727)	399,004,181	(276,825,439)				
F2. First Prior Year	26,206,697	(27,538,113)	(102,051,727)	399,004,181	\$ (276,825,439)			
F3. Second Prior Year	86,519,686	26,206,697	(27,538,113)	(102,051,727)	399,004,181	6 (276,825,439)		
F4. Third Prior Year	(92,471,186)	86,519,686	26,206,697	(27,538,113)	(102,051,727)	399,004,181	\$ (276,825,439)	
F5. Fourth Prior Year	(52,984,179)	(92,471,187)	86,519,687	26,206,698	(27,538,115)	(102,051,726)	399,004,183	\$ (276,825,441)
F6. Total Recognized Investment Gain	(60,267,095)	(109,334,644)	382,140,725	18,795,600	(7,411,100)	20,127,016	122,178,744	(276,825,441)
G. Preliminary Actuarial Value End of Year: A + D + E3 + F6	\$ 9,158,579,327	\$ 9,485,963,700	\$ 10,312,682,279	\$ 10,895,279,638				
H. Additional Recognized G/L due to Corridor	-	-	-	-				
I. Final Actuarial Value after 20% Corridor	\$ 9,158,579,327	\$ 9,485,963,700	\$ 10,312,682,279	\$ 10,895,279,638				
J. Difference between Market & Actuarial Value: B-I	\$ 49,035,824	\$ (351,888,166)	\$ 1,260,992,016	\$ (141,930,781)				
K. Recognized Rate of Return	6.55%	5.54%	10.82%	6.93%				
L. Market Rate of Return	5.58%	1.12%	29.08%	(6.02%)				
M. Ratio of Actuarial Value to Market Value	99.47%	103.85%	89.10%	101.32%				

The Funding Value of Assets recognizes assumed investment income (line E3) fully each year. Differences between actual and assumed investment income (line E4) 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.

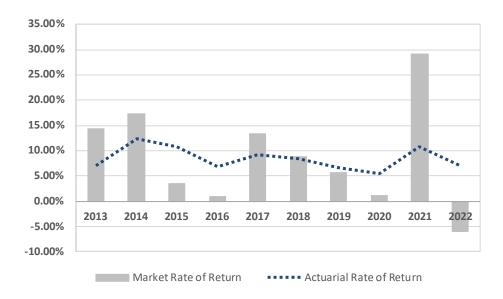
\* Information regarding net cash flows for funding purposes is provided separately from the GASB Statement Nos. 67 and 74 information and may differ. Total non-investment net cash flow includes \$656,261 in expenses that were unallocated in the GASB accounting statements.



## Historical Rates of Investment Return (Market Return vs. Actuarial Return)

Plan Year Ending		
June 30 of	Market*	Actuarial
2013	14.38%	7.12%
2014	17.23%	12.28%
2015	3.41%	10.72%
2016	0.83%	6.83%
2017	13.31%	9.11%
2018	8.77%	8.40%
2019	5.58%	6.55%
2020	1.12%	5.54%
2021	29.08%	10.82%
2022	-6.02%	6.93%
Average Returns		
Last 5 Years	7.09%	7.63%
Last 10 Years	8.36%	8.41%

\* Annual market rate of return calculated by the actuary is determined on a simplified money-weighted basis, using market value of assets at beginning and end of year and reported cashflows during the year. The rates of return shown above will differ from calculations of investment return on a time-weighted basis, and may differ slightly from rates of return calculated on a dollar-weighted basis by investment professionals.





### **Allocation of Assets**

	_	Employees	Teachers	Police		Fire		Total		
Allocated Fund Assets (Actuarial Value)	\$	3,658,779,706 \$	\$	3,988,027,268	\$	2,190,828,189	\$	1,057,644,475	\$	10,895,279,638
Less Reserve for TSAs		0		0		0		0		0
Less 401(h) Account		12,966,346		11,522,371		19,717,592		1,379,374		45,585,683
Net Pension Valuation Assets	\$	3,645,813,360 \$	\$	3,976,504,897	\$	2,171,110,597	\$	1,056,265,101	\$	10,849,693,955

The Actuarial Value of Assets was allocated to the pension and medical subsidy plans based on the Market Value of those plans. The Actuarial Value of Assets was then further allocated to each fund (either pension or medical subsidy) based on the Market Value of those funds. The 401(h) account for Police and Fire is combined. The allocation between Police and Fire is based on the percentage of the medical subsidy market value of assets.



## **Historical Retirement System Cash Flows**

			Expenditures										External		
		Benefit					ministrative						Cash Flow for the	Market Value	External Cash Flow as a Percent
June 30	<b>Contributions</b> <sup>1</sup>		Payments		Refunds		Expenses		Other <sup>2</sup>		Total		Year <sup>3</sup>	of Assets	of Market Value
(1)	(2)		(3)		(4)		(5)		(6)		(7)		(8)	(9)	(10)
2022	\$823,009,765	\$	(913,994,579)	\$	(23,726,778)	\$	(9,523,523)	\$	(1,109,775)	\$	(948,354,655)	\$	(125,344,890)	\$ 10,708,357,010	(1.2)%
2021	696,156,378		(858,210,462)		(19,883,792)		(8,417,146)		(790,708)		(887,302,108)		(191,145,730)	11,523,879,340	(1.7)%
2020	674,747,435		(816,708,118)		(23,312,151)		(8,281,785)		(892,659)		(849,194,713)		(174,447,278)	9,097,364,441	(1.9)%
2019	658,402,312		(780,906,714)		(23,464,493)		(7,436,447)		(958,942)		(812,766,596)		(154,364,284)	9,170,772,530	(1.7)%
2018	640,230,909		(741,752,669)		(24,010,459)		(7,767,254)		(911,824)		(774,442,206)		(134,211,297)	8,836,866,976	(1.5)%
2017	579,713,841		(706,303,846)		(23,408,460)		(7,670,827)		(1,254,518)		(738,637,651)		(158,923,810)	8,253,987,979	(1.9)%
2016	565,431,123		(670,359,868)		(24,233,277)		(7,061,317)		(1,263,550)		(702,918,012)		(137,486,889)	7,434,317,371	(1.8)%
2015	536,357,394		(631,310,997)		(26,344,739)		(7,581,315)		(1,626,866)		(666,863,917)		(130,506,523)	7,509,926,452	(1.7)%
2014	527,477,252		(599,475,606)		(26,119,759)		(7,376,270)		(1,446,882)		(634,418,517)		(106,941,265)	7,390,628,021	(1.4)%
2013	446,324,216		(573,470,316)		(23,190,984)		(6,998,526)		(1,804,939)		(605,464,765)		(159,140,549)	6,404,983,965	(2.5)%

<sup>1</sup> Column (2) includes employee and employer contributions.

<sup>2</sup> Includes other custodial, professional and non-investment expenses, and contributions other than for contribution effort.

<sup>3</sup> Column (8) = Column (2) + Column (7).



Actuarial Present Value of	Total Present Value (1)	Portion Covered by Future Normal Cost Contributions (2)			ctuarial Accrued Liabilities (1) - (2)
Age and service allowances based on total service likely to be rendered by present active members	\$ 7,614,244,372	\$	1,680,891,056	\$	5,933,353,316
Disability benefits likely to be paid to present active members	179,796,627		121,556,798		58,239,829
Death-in-service benefits likely to be paid on behalf of present active members (employer financed portion)	70,571,420		37,070,459		33,500,961
Separation benefits (refunds of contributions and deferred allowances) likely to be paid to present active members	1,198,469,780		850,112,607		348,357,173
Benefits likely to be paid to current inactive and vested deferred members	491,872,591		-		491,872,591
Benefits to be paid to current retirees, beneficiaries, and future beneficiaries of current retirees	 9,678,162,787		-		9,678,162,787
Total	\$ 19,233,117,577	\$	2,689,630,920	\$	16,543,486,657
Actuarial Value of Assets	\$ 10,849,693,955	\$	-	\$	10,849,693,955
Liabilities to be Covered by Future Contributions	\$ 8,383,423,622	\$	2,689,630,920	\$	5,693,792,702

Funded Ratio

65.6%



## Actuarial Balance Sheet as of June 30, 2022

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

		Pension	Medical Subsidy
Α.	Present valuation assets		
	1. Net assets from system financial statements	\$ 10,708,357,010	\$ 44,991,847
	2. Actuarial value adjustment	141,336,945	593,836
	3. Actuarial valuation assets	10,849,693,955	45,585,683
В.	Actuarial present value of expected future employer contributions		
	1. For normal costs	650,192,655	5,471,212
	2. For unfunded actuarial accrued liability	5,693,792,702	521,643,030
	3. Total	6,343,985,357	527,114,242
C.	Actuarial present value of expected future member contributions	2,039,438,265	-
D.	Total Present and Expected Future Resources	\$ 19,233,117,577	\$ 572,699,925

#### **Present Value of Expected Future Benefit Payments**

		Pension	Medical Subsidy
Α.	To retirees and beneficiaries	\$ 9,678,162,787	\$ 517,624,837
в.	To vested terminated members	360,185,947	-
C.	To non-vested terminated members (outstanding refunds)	131,686,644	-
D.	<ol> <li>To present active members</li> <li>Allocated to service rendered prior to valuation date - actuarial accrued liability</li> <li>Allocated to service likely to be rendered</li> </ol>	6,373,451,279	49,603,876
	after valuation date	2,689,630,920	5,471,212
	3. Total	9,063,082,199	55,075,088
E.	Total Actuarial Present Value of Expected Future Benefit Payments	\$ 19,233,117,577	\$ 572,699,925



# Experience Gain/(Loss) as of June 30, 2021 and June 30, 2022

	Pension	Medical Subsidy
(1) Actual UAAL* as of June 30, 2021	\$ 5,722,902,159	\$ 569,824,165
(2) Normal cost from 2021 valuation	332,259,571	1,411,825
(3) Actual contributions (employer and employee)	823,009,765	42,064,183
(4) Interest accrual: [(1)+1/2 [(2)-(3)]] x {.0675 for pension;		
.0275 for medical subsidy}	369,733,077	15,111,195
(5) Expected UAAL end of year: (1)+(2)-(3)+(4)	5,601,885,042	544,283,002
(6) Change from legislation	-	-
(7) Change from revised actuarial assumptions	-	-
(8) Expected UAAL after changes: (5)+(6)+(7)	5,601,885,042	544,283,002
(9) Actual UAAL* as of June 30, 2022	5,693,792,702	521,643,030
(10) Gain/(loss) for year: (8)-(9)	(91,907,660)	22,639,972
(11) Gain/(loss) as percent of actuarial accrued		
liabilities at start of year	(0.6)%	3.7 %

\* Unfunded Actuarial Accrued Liabilities.



## Risks Associated with Measuring the Accrued Liability and Actuarially Determined Contribution

The determination of the accrued liability and the actuarially determined contribution requires the use of assumptions regarding future economic and demographic experience. Risk measures, as illustrated in this report, are intended to aid in the understanding of the effects of future experience differing from the assumptions used in the course of the actuarial valuation. Risk measures may also help with illustrating the potential volatility in the accrued liability and the actuarially determined contribution that result from the differences between actual experience and the actuarial assumptions.

Future actuarial measurements may differ significantly from the current measurements presented in this report due to such factors as the following: plan experience differing from that anticipated by the economic or demographic assumptions; changes in economic or demographic assumptions due to changing conditions; 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 NHRS' funded status); and changes in plan provisions or applicable law. The scope of an actuarial valuation does not include an analysis of the potential range of such future measurements.

Examples of risk that may reasonably be anticipated to significantly affect the plan's future financial condition include:

- 1. Investment Risk actual investment returns may differ from the expected returns;
- 2. Asset/Liability Mismatch changes in asset values may not match changes in liabilities, thereby altering the gap between the accrued liability and assets and consequently altering the funded status and contribution requirements;
- Contribution Risk actual contributions may differ from expected future contributions. For example, actual contributions may not be made in accordance with the plan's funding policy or material changes may occur in the anticipated number of covered employees, covered payroll, or other relevant contribution base;
- 4. Salary and Payroll Risk actual salaries and total payroll may differ from expected, resulting in actual future accrued liability and contributions differing from expected;
- 5. **Longevity Risk** members may live longer or shorter than expected and receive pensions for a period of time other than assumed; and
- 6. **Other Demographic Risks** members may terminate, retire or become disabled at times or with benefits other than assumed resulting in actual future accrued liability and contributions differing from expected.

The effects of certain trends in experience can generally be anticipated. For example, if the investment return since the most recent actuarial valuation is less (or more) than the assumed rate, the cost of the plan can be expected to increase (or decrease). Likewise, if longevity is improving (or worsening), increases (or decreases) in cost can be anticipated.

The timely receipt of the actuarially determined contributions is critical to support the financial health of the plan. Users of this report should be aware that contributions made at the actuarially determined rate do not necessarily guarantee benefit security.



## **Plan Maturity Measures**

Risks facing a pension plan evolve over time. A young plan with virtually no investments and paying few benefits may experience little investment risk. An older plan with a large number of members in pay status and a significant trust may be much more exposed to investment risk. Generally accepted plan maturity measures are discussed in the following pages. A historical summary of these plan maturity measures can be found on page 48.

#### **Funded Ratio**

The ratio of actuarial value of assets to actuarial accrued liabilities is expected to trend toward 100% by June 30, 2043. Each subsequent change in liability as calculated in odd-numbered years shall be separately amortized over a fixed period of no longer than 20 years.

#### Ratio of Actual Total Payroll to Expected Total Payroll

This ratio is expected to remain near 100% each year.

#### Ratio of Net Cash Flow to Market Value of Assets

A positive net cash flow means contributions exceed benefits and expenses. A negative cash flow means existing funds are being used to make payments. A certain amount of negative net cash flow is generally expected to occur when benefits are prefunded through a qualified trust. Large negative net cash flows as a percent of assets may indicate a super-mature plan or a need for additional contributions.

#### **Ratio of Actives to Retirees and Beneficiaries**

A young plan with many active members and few retirees will have a high ratio of actives to retirees. A mature open plan may have close to the same number of actives to retirees resulting in a ratio near 1.0. A super-mature or closed plan may have significantly more retirees than actives resulting in a ratio below 1.0.

#### **Ratio of Unfunded Actuarial Accrued Liability to Payroll**

The ratio of the unfunded actuarial accrued liability to payroll is expected to trend toward 0% by June 30, 2043.

#### **Ratio of Actuarial Value of Assets to Payroll**

The relationship between assets and payroll is a useful indicator of the potential volatility of contributions. For example, if the actuarial value of assets is 2.0 times the payroll, a return on assets 5% different than assumed would equal 10% of payroll. A higher (lower) or increasing (decreasing) level of this maturity measure generally indicates a higher (lower) or increasing (decreasing) volatility in plan sponsor contributions as a percentage of payroll.



## Plan Maturity Measures (Concluded)

#### **Ratio of Actuarial Accrued Liability to Payroll**

The relationship between actuarial accrued liability and payroll is a useful indicator of the potential volatility of contributions for a fully funded plan. A funding policy that targets a funded ratio of 100% is expected to result in the ratio of assets to payroll and the ratio of liability to payroll converging over time. Total AAL / Total Payroll is expected to grow as the System matures. The rate of growth may slow down as members hired on or after July 1, 2011 replace current members.

The ratio of liability to payroll may also be used as a measure of sensitivity of the liability itself. For example, if the actuarial accrued liability is 2.5 times the payroll, a change in liability 2% other than assumed would equal 5% of payroll. A higher (lower) or increasing (decreasing) level of this maturity measure generally indicates a higher (lower) or increasing (decreasing) volatility in liability (and also plan sponsor contributions) as a percentage of payroll.

#### Standard Deviation of Investment Return to Payroll

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

#### **Standard Deviation of Contribution Rate**

This measure illustrates the impact of a one standard deviation change in investment return on the annual contribution rate. Absent a change in amortization policy, this rate is expected to increase substantially as the amortization period decreases.

#### **Additional Risk Assessment**

Additional risk assessment is outside the scope of the annual actuarial valuation. Additional assessment may include scenario tests, sensitivity tests, stochastic modeling, stress tests, and a comparison of the present value of accrued benefits at low-risk discount rates with the actuarial accrued liability.



## Summary of Risk Measures Pension

		Fundec Percentage of AA	L Covered by No					Ratio to Payroll					
	-	Value of Aggregate	f Assets Availab Current	le Active &	Actual Total Payroll /	Net Cash Flow as a	Ratio of	UAAL				Standard Deviation of	Standard Deviation of
	NHRS in	Member	Retirees &	Inactive	Expected		Actives to	Amortization					Contribution
Valuation Year	Total	Contributions	Beneficiaries	Members	<b>Total Payroll</b>	of MVA	Retirees <sup>1</sup>	Period	UAAL	AVA	AAL	Return	Rate
June 30, 2008	67.8%	100%	83%	0%	101%	(1.2)%	2.2	30	109%	230%	339%	***	***
June 30, 2009*	58.3	100	63	0	103	(2.3)	2.1	30	145	202	346	23%	0.3%
June 30, 2010	58.5	100	61	0	98	(2.8)	2.0	30	150	211	361	23	0.3%
June 30, 2011#*	57.4	100	63	0	98	(3.1)	1.8	29	169	228	397	26	0.3%
June 30, 2012	56.1	100	58	0	96	(2.3)	1.7	28	183	234	417	28	0.3%
June 30, 2013	56.7	100	59	0	97	(2.9)	1.6	27	185	243	428	29	0.3%
June 30, 2014	60.7	100	67	0	97	(1.7)	1.6	26	173	267	440	32	0.4%
June 30, 2015#^	59.2	100	66	0	99	(1.8)	1.5	25	195	283	478	33	0.4%
June 30, 2016	60.0	100	67	0	98	(1.7)	1.5	24	196	294	489	34	0.4%
June 30, 2017#	61.8	100	72	0	99	(2.0)	1.3	23	189	306	495	36	0.5%
June 30, 2018	63.6	100	75	0	100	(1.7)	1.3	22	181	317	498	37	0.5%
June 30, 2019#*@^	60.8	100	73	0	100	(1.8)	1.3	21	209	323	531	40	0.6%
June 30, 2020	61.0	100	72	0	100	(1.9)	1.3	20	209	326	535	40	0.6%
June 30, 2021	64.2	100	78	0	100	(2.1)	1.3	19	193	345	538	42	0.6%
June 30, 2022	65.6	100	81	0	101	(1.1)	1.2	18-20	185	353	538	43	0.7%

# After reflection of changes in assumptions.

\* After reflection of changes in legislation.

@ After reflection of changes in methodology.

\*\*\* Unavailable.

^ The standard deviation of investment return was updated in the experience study.

<sup>1</sup> Beginning with the valuation year ended June 30, 2019, the ratio of actives to retirees excludes additional data records which have resulted from additional annuities, survivor benefits, or members having benefits in more than one valuation group. There were 3,698 such records in 2022.

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

**UAAL Amortization Period**: The unfunded liability as of June 30, 2022 shall be amortized through 2039 (a 17-year period beginning on July 1, 2022). Each subsequent change in liability as calculated in odd-numbered years shall be separately amortized over a fixed period of no longer than 20 years.



## **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; and
- 3) The liabilities for service already rendered by active and inactive members.

In a system that has been following the discipline of level percent-of-payroll financing, 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)

		Proje	ected Pension Lia	_					
		(1)	(2)	(3)	_	Percer	ccrued		
		Aggregate	Current	Active & Inactive	Net Assets	Liabilitie	bilities Covered by N		
Fiscal		Member	Retirees &	Members (Employer	Available	Assets Available			
Year		Contributions	Beneficiaries	Financed Portion)	for Benefits	<u>(1)</u>	<u>(2)</u>	<u>(3)</u>	
2012		\$2,773,081	\$5,246,672	\$2,341,847	\$5,817,882	100%	58%	0%	
2013		2,808,526	5,519,814	2,380,428	6,070,681	100%	59%	0%	
2014		2,842,340	5,789,052	2,413,782	6,700,553	100%	67%	0%	
2015	#	2,949,169	6,098,512	2,440,932	7,280,761	100%	72%	0%	
2016		2,978,817	6,964,227	2,789,822	7,636,066	100%	67%	0%	
2017	#	2,915,811	7,315,440	2,977,198	8,165,684	100%	72%	0%	
2018		2,927,793	7,667,448	3,107,908	8,710,939	100%	75%	0%	
2019	#*@	3,019,358	8,392,790	3,602,017	9,121,933	100%	73%	0%	
2020		3,119,450	8,739,587	3,628,978	9,447,838	100%	72%	0%	
2021		3,087,943	9,151,819	3,751,453	10,268,313	100%	78%	0%	
2022		3,036,430	9,678,163	3,828,894	10,849,694	100%	81%	0%	

# After reflection of changes in assumptions.

\* After reflection of changes in legislation.

@ After reflection of changes in methodology.



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

			Proje	cted Pension L	iabilities for				
			(1) Aggregate	(2) Current	(3) Active & Inactive	Net Assets		ntage of Ad es Covered	
	Fisca	al	Member		Members (Employer	Available		sets Availa	
Group	Yea		Contributions		Financed Portion)	for Benefits	<u>(1)</u>	(2)	<u>(3)</u>
Employees	2013		\$ 1,069,628	\$ 1,729,855	\$ 755,482	\$ 1,977,479	100%	52%	0%
Teachers	2013		1,107,192	2,087,926	977,937	2,255,011	100%	55%	0%
Police	2013		417,630	1,160,173	438,580	1,236,579	100%	71%	0%
Fire	2013		214,076	541,860	208,430	601,612	100%	72%	0%
Employees	2014		1,083,878	1,823,517	784,437	2,195,284	100%	61%	0%
Teachers	2014		1,113,650	2,198,892	966,511	2,482,496	100%	62%	0%
Police	2014		422,972	1,209,741	454,133	1,361,280	100%	78%	0%
Fire	2014		221,840	556,902	208,701	661,493	100%	79%	0%
Employees	2015 #	#	1,137,601	2,007,299	863,247	2,403,294	100%	63%	0%
Teachers		#	1,155,922	2,555,611	1,141,245	2,682,083	100%	60%	0%
Police		#	433,215	1,364,908	543,229	1,477,517	100%	77%	0%
Fire	2015		222,431	637,704	241,223	717,867	100%	78%	0%
Employees	2016		1,152,928	2,139,549	857,347	2,538,563	100%	65%	0%
Teachers	2010		1,171,831	2,692,037	1,156,821	2,799,863	100%	60%	0%
Police	2010		430,490	1,460,840	535,225	1,546,665	100%	76%	0%
Fire	2016		223,568	671,801	240,428	750,975	100%	79%	0%
Frankausaa	2017		1 1 2 2 0 7 1	2 272 426	024 564	2 724 550	100%	70%	00/
Employees	2017	4	1,133,071	2,272,436	934,564	2,734,558	100% 100%	70%	0% 0%
Teachers Police	2017 # 2017	H	1,132,876 426,606	2,819,228 1,526,761	1,211,560 570,755	2,979,005 1,650,908	100%	65% 80%	0%
Fire	2017		223,258	697,015	260,320	801,214	100%	83%	0%
<b>F</b>	2010		4 4 2 0 4 0 0	2 201 404	074 424	2 022 250	1000/	750/	00/
Employees	2018		1,128,180	2,391,404	974,131	2,922,358	100%	75%	0%
Teachers	2018		1,142,455	2,956,675	1,268,903	3,176,932	100%	69%	0%
Police	2018		428,859	1,596,512	591,281	1,758,301	100%	83%	0%
Fire	2018		228,299	722,857	273,593	853,348	100%	86%	0%
Employees		#*@	1,160,917	2,646,257	1,181,832	3,063,967	100%	72%	0%
Teachers	2019	#*@	1,181,186	3,195,041	1,461,286	3,326,088	100%	67%	0%
Police	2019	#*@	441,940	1,768,684	666,606	1,838,868	100%	79%	0%
Fire	2019 #	#*@	235,315	782,808	292,293	893,010	100%	84%	0%
Employees	2020		1,194,410	2,766,799	1,202,228	3,173,612	100%	72%	0%
Teachers	2020		1,225,030	3,310,020	1,470,570	3,450,798	100%	67%	0%
Police	2020		458,081	1,847,135	658,558	1,900,199	100%	78%	0%
Fire	2020		241,928	815,632	297,625	923,229	100%	84%	0%
Employees	2021		1,187,629	2,892,159	1,246,883	3,449,619	100%	78%	0%
Teachers	2021		1,220,158	3,429,767	1,532,995	3,752,083	100%	74%	0%
Police	2021		445,546	1,958,854	649,018	2,062,170	100%	83%	0%
Fire	2021		234,610	871,038	322,557	1,004,441	100%	88%	0%
Emplovees	2022		1.170.371	3.071.698	1.300.176	3.645.813	100%	81%	0%
									0%
									0%
									0%
Employees Teachers Police Fire	2022 2022 2022 2022		1,170,371 1,210,287 424,441 231,331	3,071,698 3,552,414 2,129,277 924,774	1,300,176 1,585,896 633,839 308,983	3,645,813 3,976,505 2,171,111 1,056,265	100% 100% 100% 100%	81% 78% 82% 89%	

# After reflection of changes in assumptions.

\* After reflection of changes in legislation.

@ After reflection of changes in methodology.



# **Employees**

Actuarial Present Value of	Total Present Value (1)	Portion Covered by Future Normal Cost Contributions (2)	Actuarial Accrued Liabilities (1) - (2)
	(1)	(2)	(1) - (2)
Age and service allowances based on total service likely to be rendered by present active members	\$ 2,536,486,577	\$ 477,380,178	\$ 2,059,106,399
Disability benefits likely to be paid to present active members	64,038,628	38,803,474	25,235,154
Death-in-service benefits likely to be paid on behalf of present active members (employer financed portion)	28,319,611	14,129,469	14,190,142
Separation benefits (refunds of contributions and deferred allowances) likely to be paid to present active members	494,797,247	350,167,694	144,629,553
Benefits likely to be paid to current inactive and vested deferred members	227,386,618	-	227,386,618
Benefits to be paid to current retirees, beneficiaries, and future beneficiaries of current retirees	3,071,697,334	ļ -	3,071,697,334
Total	\$ 6,422,726,015	\$ 880,480,815	\$ 5,542,245,200
Actuarial Value of Assets	\$ 3,645,813,360	\$-	\$ 3,645,813,360
Liabilities to be Covered by Future Contributions	\$ 2,776,912,655	\$ 880,480,815	\$ 1,896,431,840
Funded Ratio			65.8%



## Teachers

	Total Present Value	Fut	rtion Covered by cure Normal Cost Contributions	Ac	Liabilities
Actuarial Present Value of	(1)		(2)		(1) - (2)
Age and service allowances based on total service likely to be rendered by present active members	\$ 3,060,572,355	\$	670,791,568	\$	2,389,780,787
Disability benefits likely to be paid to present active members	24,993,043		11,948,130		13,044,913
Death-in-service benefits likely to be paid on behalf of present active members (employer financed portion)	21,627,298		10,045,290		11,582,008
Separation benefits (refunds of contributions and deferred allowances) likely to be paid to present active members	518,638,122		345,236,506		173,401,616
Benefits likely to be paid to current inactive and vested deferred members	208,373,476		-		208,373,476
Benefits to be paid to current retirees, beneficiaries, and future beneficiaries of current retirees	 3,552,414,174		-		3,552,414,174
Total	\$ 7,386,618,468	\$	1,038,021,494	\$	6,348,596,974
Actuarial Value of Assets	\$ 3,976,504,897	\$	-	\$	3,976,504,897
Liabilities to be Covered by Future Contributions	\$ 3,410,113,571	\$	1,038,021,494	\$	2,372,092,077
Funded Ratio					62.6%



## Police

	Total Present Value	by I	rtion Covered Future Normal Cost ontributions	Ac	tuarial Accrued Liabilities
Actuarial Present Value of	(1)		(2)		(1) - (2)
Age and service allowances based on total service likely to be rendered by present active members	\$ 1,294,341,772	\$	330,771,683	\$	963,570,089
Disability benefits likely to be paid to present active members	69,237,314		51,171,502		18,065,812
Death-in-service benefits likely to be paid on behalf of present active members (employer financed portion) Separation benefits (refunds of contributions	13,176,809		8,347,701		4,829,108
and deferred allowances) likely to be paid to present active members	152,997,633		127,797,335		25,200,298
Benefits likely to be paid to current inactive and vested deferred members	46,614,531		-		46,614,531
Benefits to be paid to current retirees, beneficiaries, and future beneficiaries of current retirees	 2,129,276,832		-		2,129,276,832
Total	\$ 3,705,644,891	\$	518,088,221	\$	3,187,556,670
Actuarial Value of Assets	\$ 2,171,110,597	\$	-	\$	2,171,110,597
Liabilities to be Covered by Future Contributions	\$ 1,534,534,294	\$	518,088,221	\$	1,016,446,073
Funded Ratio					68.1%



### Fire

	Total Present Value	Contributions			tuarial Accrued Liabilities
Actuarial Present Value of	(1)		(2)		(1) - (2)
Age and service allowances based on total service likely to be rendered by present active members	\$ 722,843,668	\$	201,947,627	\$	520,896,041
Disability benefits likely to be paid to present active members	21,527,642		19,633,692		1,893,950
Death-in-service benefits likely to be paid on behalf of present active members (employer financed portion)	7,447,702		4,547,999		2,899,703
Separation benefits (refunds of contributions and deferred allowances) likely to be paid to present active members	32,036,778		26,911,072		5,125,706
Benefits likely to be paid to current inactive and vested deferred members	9,497,966		-		9,497,966
Benefits to be paid to current retirees, beneficiaries, and future beneficiaries of current retirees	 924,774,447		<u> </u>		924,774,447
Total	\$ 1,718,128,203	\$	253,040,390	\$	1,465,087,813
Actuarial Value of Assets	\$ 1,056,265,101	\$	-	\$	1,056,265,101
Liabilities to be Covered by Future Contributions	\$ 661,863,102	\$	253,040,390	\$	408,822,712
Funded Ratio					72.1%



## **OPEB Solvency Test**

The New Hampshire Retirement System funding objective is to contribute the minimum amount necessary to maintain assets sufficient to pay medical subsidy benefits in each of the four subaccounts. Given the absence of assets from prior pre-funding (as exists for pension benefits), medical subsidy benefits payable in the future will be largely funded by future employer contributions. If the contributions to the System are 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) The liabilities for future benefits to present retired lives; and
- 2) The liabilities for service already rendered by active and inactive members.

# Total of all Groups (\$ in Thousands)

		Projected OPEB Liabilities for				_			
		(1)		(2)				Percentage	e of Accrued
		Current		Active & Inactive		Net Assets		Liabilities Covered by Net	
Fiscal		Retirees &		Members (Employer		Available		Assets Available	
Year		Ber	neficiaries	Finan	ced Portion)	for Benefits		<u>(1)</u>	<u>(2)</u>
2015	#	\$	610,819	\$	150,523	\$	19,515	3%	0%
2016			591,335		138,797		27,350	5%	0%
2017	#		568,676		127,872		38,853	7%	0%
2018			576,261		113,316		36,777	6%	0%
2019	#		595,066		100,358		36,646	6%	0%
2020			572,222		84,426		38,125	7%	0%
2021			548,025		66,169		44,370	8%	0%
2022			517,625		49,604		45,586	9%	0%

# After reflection of changes in assumptions.



## **Valuation Methods**

#### Pension

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

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

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

**Financing of Unfunded Actuarial Accrued Liabilities -** Unfunded Actuarial Accrued Liabilities are amortized by level (principal & interest combined) percent-of-payroll contributions from the contribution effective date. The unfunded liability as of June 30, 2017 shall be amortized through 2039. Each subsequent change in liability as calculated in odd-numbered years shall be separately amortized over a fixed period of no longer than 20 years.

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

#### **Medical Subsidy**

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

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

Solvency rates for medical subsidy benefits are set such that a specified margin is established by the end of the biennium and for all future years thereafter. The margin is intended to mitigate the risk of insolvency due to adverse experience.

At the November 12, 2013 Board meeting, the Board elected to incorporate a 20% margin requirement for all four member classifications.

At the June 9, 2020 Board meeting, the Board elected to increase the margin for the Teachers group from 20% to 50%. No change to the margin requirement of 20% was made for the other groups.



## **Valuation Methods**

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

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

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



### **Development of Amortization Payment**

The employer contribution rates determined by the 2021 valuation are for the 2024-2025 biennium. The Unfunded Actuarial Accrued Liability (UAAL) was determined using the Actuarial Value of assets and actuarial accrued liability calculated as of the valuation date. The UAAL amortization payment (one component of the contribution requirement), is the level percent of pay required to fully amortize the UAAL over multiple periods beginning on July 1, 2023. 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 the June 30, 2021 Funding report are scheduled to begin. It was assumed that the entire pension contribution as determined by the June 30, 2019 valuation effective from July 1, 2021 to June 30, 2023 would be contributed to the net pension assets. The unfunded liability as of June 30, 2017 shall be amortized through 2039. Each subsequent change in liability as calculated in odd-numbered years shall be separately amortized over a fixed period of no longer than 20 years.



*The actuarial assumptions used* in the valuation are shown in this section. All actuarial assumptions and the rationale for the assumptions are based on the July 1, 2015 to June 30, 2019 experience study.

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

### **Economic Assumptions**

**The investment return rate** assumed in the valuations is 6.75% per year, compounded annually (net after investment expenses). **The investment return rate** assumed in the medical subsidy valuations is 2.75% per year, compounded annually (net after investment expenses) for purposes of computing accrued liabilities. However, for determining the solvency contribution rate for the medical subsidy account and GASB Statement No. 74, the investment return rate assumption was 6.75% on the market value of assets.

The *Wage Inflation Rate* assumed in this valuation was 2.75% 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.

The *Price Inflation* assumption is 2.0% per year.

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 6.75% 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 – at 4.75%, with a 2.0% price inflation assumption.

The active member population for Employees, Police and Fire is assumed to remain constant. For purposes of financing the unfunded liabilities, total payroll is assumed to grow at the wage inflation rate – 2.75% per year. For Teachers, the active member population is assumed to decline by 0.50% per year. For purposes of financing the unfunded liabilities, total payroll for Teachers is assumed to grow at the wage inflation rate minus 0.50% which is 2.25% 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 2.75% 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						
Service	Merit &	Base	Increase				
Index	Seniority	(Economy)	Next Year				
1	12.00%	2.75%	14.75%				
2	6.00%	2.75%	8.75%				
3	3.00%	2.75%	5.75%				
4	2.75%	2.75%	5.50%				
5	2.50%	2.75%	5.25%				
6	2.25%	2.75%	5.00%				
7	2.00%	2.75%	4.75%				
8	1.75%	2.75%	4.50%				
9	1.50%	2.75%	4.25%				
10	1.25%	2.75%	4.00%				
11	1.00%	2.75%	3.75%				
12	0.75%	2.75%	3.50%				
13	0.50%	2.75%	3.25%				
14	0.50%	2.75%	3.25%				
15	0.50%	2.75%	3.25%				
16	0.50%	2.75%	3.25%				
17	0.50%	2.75%	3.25%				
18	0.50%	2.75%	3.25%				
19	0.50%	2.75%	3.25%				
20	0.50%	2.75%	3.25%				
21	0.50%	2.75%	3.25%				
22	0.50%	2.75%	3.25%				
23	0.50%	2.75%	3.25%				
24	0.50%	2.75%	3.25%				
25	0.50%	2.75%	3.25%				
Ref:	8532.75%						



## **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

			ing within Next Yes	ar			
Retirement	Male		0	Female			
Ages	Normal Early		Early Rule of 70	Normal	Early	Early Rule of 70	
45			0.60%			0.60%	
46			0.60%			0.60%	
47			0.70%			0.70%	
48			0.90%			0.90%	
49			1.10%			1.10%	
50		0.50%	1.80%		0.50%	1.80%	
51		0.50%	2.10%		0.50%	2.10%	
52		0.60%	2.40%		0.60%	2.40%	
53		0.70%	3.50%		0.70%	3.50%	
54		0.90%	3.90%		0.90%	3.90%	
55		1.50%	6.30%		1.50%	6.30%	
56		2.10%	6.90%		2.10%	6.90%	
57		2.10%	9.80%		2.10%	9.80%	
58		2.90%	11.10%		2.90%	11.10%	
59		3.90%	13.70%		3.90%	13.70%	
60	10.80%			10.80%			
61	10.10%			10.50%			
62	15.50%			13.90%			
63	16.10%			13.60%			
64	13.50%			14.30%			
65	17.10%			19.20%			
66	24.80%			24.00%			
67	23.10%			23.70%			
68	19.80%			20.20%			
69	18.80%			20.10%			
70	100.00%			100.00%			
Ref.	3082	3084	3085	3083	3084	3085	

## % of Active Members



## **Employees (Continued)**

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

	% of Active Members				
	Retiring within Next Year				
Retirement	Ма	le	Female		
Ages	Normal	Early	Normal	Early	
60		10.8%		10.8%	
61		10.1%		10.5%	
62		15.5%		13.9%	
63		16.1%		13.6%	
64		13.5%		14.3%	
65	45.0%		44.0%		
66	45.0%		44.0%		
67	23.0%		22.0%		
68	21.0%		18.0%		
69	20.0%		19.0%		
70	100.0%		100.0%		
Ref.	999	3082	999	3083	
	65	60	65	60	

### For Members Hired on or after July 1, 2011



## **Employees (Concluded)**

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

		% of Active Members		
Sample	Years of	Separating within Next Yea		
Ages	Service	Male	Female	
	0	27.00%	27.00%	
	1	21.00%	21.00%	
	2	15.00%	15.00%	
	3	12.00%	12.00%	
	4	10.00%	10.00%	
25	5+	8.26%	8.26%	
30		6.84%	6.84%	
35		5.74%	5.74%	
40		4.97%	4.97%	
45		4.39%	4.39%	
50		3.81%	3.81%	
55		3.48%	3.48%	
60		3.23%	3.23%	
Ref.		37	37	
		1.29	1.29	
		1269	1269	

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

	% of Active Members					
	Becomin	g Disabled				
Sample	within	Next Year				
 Ages	Male	Female				
20	0.000%	0.000%				
25	0.011%	0.011%				
30	0.014%	0.014%				
35	0.018%	0.018%				
40	0.038%	0.038%				
45	0.072%	0.072%				
50	0.150%	0.150%				
 55	0.281%	0.281%				
 Ref	19	19				
	0.60	0.60				



### **Teachers**

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

	Salary Increase Assumptions				
_	for an Individual Member				
Service	Merit &	Base	Increase		
Index	Seniority	(Economy)	Next Year		
1	8.00%	2.75%	10.75%		
2	8.00%	2.75%	10.75%		
3	4.00%	2.75%	6.75%		
4	3.50%	2.75%	6.25%		
5	3.25%	2.75%	6.00%		
6	3.00%	2.75%	5.75%		
7	2.75%	2.75%	5.50%		
8	2.50%	2.75%	5.25%		
9	2.25%	2.75%	5.00%		
10	2.00%	2.75%	4.75%		
11	1.75%	2.75%	4.50%		
12	1.50%	2.75%	4.25%		
13	1.25%	2.75%	4.00%		
14	1.00%	2.75%	3.75%		
15	1.00%	2.75%	3.75%		
16	1.00%	2.75%	3.75%		
17	1.00%	2.75%	3.75%		
18	1.00%	2.75%	3.75%		
19	1.00%	2.75%	3.75%		
20	1.00%	2.75%	3.75%		
21	1.00%	2.75%	3.75%		
22	1.00%	2.75%	3.75%		
23	1.00%	2.75%	3.75%		
24	1.00%	2.75%	3.75%		
25	1.00%	2.75%	3.75%		
Ref:	8542.75%				

The Teachers' active head count is assumed to decline 0.50% per year. The open group payroll growth assumption is consequently 2.25% per year (2.75% - 0.50%).



# **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

		Retiring	within Next Year			
Retirement	Ma	le		Fem	ale	
Ages	Normal	Early	Early Rule of 70	Normal	Early	Early Rule of 70
45			0.60%			0.60%
46			0.60%			0.60%
47			0.60%			0.60%
48			0.60%			0.60%
49			0.60%			0.60%
50		0.40%	0.80%		0.40%	0.80%
51		0.50%	1.00%		0.50%	1.00%
52		0.60%	1.20%		0.60%	1.20%
53		0.70%	0.90%		0.70%	0.90%
54		1.00%	1.90%		1.00%	1.90%
55		1.50%	4.80%		1.50%	4.80%
56		2.00%	6.60%		2.00%	6.60%
57		2.90%	9.00%		2.90%	9.00%
58		4.30%	12.00%		4.30%	12.00%
59		6.80%	15.90%		6.80%	15.90%
60	16.00%			13.00%		
61	16.00%			14.00%		
62	20.00%			18.00%		
63	16.00%			19.00%		
64	20.00%			19.00%		
65	24.50%			28.00%		
66	32.00%			35.00%		
67	28.00%			32.00%		
68	28.00%			28.00%		
69	28.00%			30.00%		
70	100.00%			100.00%		
Ref.	3086	3088	3089	3087	3088	3089





# **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				
Retirement	Male		Fema	ale	
Ages	Normal	Early	Normal	Early	
60		16%		13%	
61		16%		14%	
62		20%		18%	
63		16%		19%	
64		20%		19%	
65	58%		56%		
66	58%		56%		
67	25%		27%		
68	25%		27%		
69	25%		27%		
70	100%		100%		
Ref.	999	3086	999	3087	
	65	60	65	60	



# **Teachers (Concluded)**

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

		% of Active Members		
Sample	Years of	Separating within Next Year		
Ages	Service	Male Female		
	0	25.0%	25.0%	
	1	15.0%	15.0%	
	2	12.0%	12.0%	
	3	10.0%	10.0%	
	4	8.0%	8.0%	
25	5+	7.7%	7.7%	
30		6.0%	6.0%	
35		4.6%	4.6%	
40		3.7%	3.7%	
45		2.8%	2.8%	
50		2.4%	2.4%	
55		2.3%	2.3%	
60		2.3%	2.3%	
Ref.		870	870	
		1.10	1.10	
		81	81	

*Rates of disability* among active members. 80% percent are assumed to be ordinary disability and 20% percent are assumed to be accidental disability.

Sample	% of Active Members Becoming Disabled within Next Year			
Ages	Male	Female		
20	0.000%	0.000%		
25	0.004%	0.004%		
30	0.005%	0.005%		
35	0.006%	0.006%		
40	0.013%	0.013%		
45	0.024%	0.024%		
50	0.050%	0.050%		
55	0.094%	0.094%		
Ref	19	19		
	0.20	0.20		



### Police

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

	Salary Increase Assumptions				
-	for an Individual Member				
Service	Merit &	Base	Increase		
Index	Seniority	(Economy)	Next Year		
1	25.00%	2.75%	27.75%		
2	19.00%	2.75%	21.75%		
3	6.00%	2.75%	8.75%		
4	4.50%	2.75%	7.25%		
5	3.50%	2.75%	6.25%		
6	2.75%	2.75%	5.50%		
7	2.25%	2.75%	5.00%		
8	1.80%	2.75%	4.55%		
9	1.50%	2.75%	4.25%		
10	1.50%	2.75%	4.25%		
11	1.50%	2.75%	4.25%		
12	1.50%	2.75%	4.25%		
13	1.50%	2.75%	4.25%		
14	1.50%	2.75%	4.25%		
15	1.50%	2.75%	4.25%		
16	1.50%	2.75%	4.25%		
17	1.50%	2.75%	4.25%		
18	1.50%	2.75%	4.25%		
19	1.50%	2.75%	4.25%		
20	1.50%	2.75%	4.25%		
21	1.50%	2.75%	4.25%		
22	1.50%	2.75%	4.25%		
23	1.50%	2.75%	4.25%		
24	1.50%	2.75%	4.25%		
25	1.50%	2.75%	4.25%		
Ref:	8552.75%				



# **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, 20					
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 Year	
45	21%	With Li Italij			With 24 Tears	With 25 real	
46	21%	27%					
47	21%	27%	31%				
48	21%	25%	31%	34%			
49	21%	25%	31%	34%	38%		
50	21%	25%	27%	34%	38%	40%	
51	21%	21%	27%	31%	38%	40%	
52	21%	21%	21%	31%	33%	40%	
53	21%	21%	21%	21%	33%	38%	
54	21%	21%	21%	21%	21%	38%	
55	21%	21%	21%	21%	21%	21%	
56	21%	21%	21%	21%	21%	21%	
57	21%	21%	21%	21%	21%	21%	
58	21%	21%	21%	21%	21%	21%	
59	21%	21%	21%	21%	21%	21%	
60	21%	21%	21%	21%	21%	21%	
61	21%	21%	21%	21%	21%	21%	
62	21%	21%	21%	21%	21%	21%	
63	21%	21%	21%	21%	21%	21%	
64	21%	21%	21%	21%	21%	21%	
65	21%	21%	21%	21%	21%	21%	
66	21%	21%	21%	21%	21%	21%	
67	21%	21%	21%	21%	21%	21%	
68	21%	21%	21%	21%	21%	21%	
69	21%	21%	21%	21%	21%	21%	
70	100%	100%	100%	100%	100%	100%	



# **Police (Concluded)**

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

		% of Active Members	
Sample	Years of	Separating within Next Yea	
Ages	Service	Male	Female
	0	25.00%	25.00%
	1	16.00%	16.00%
	2	10.50%	10.50%
	3	7.00%	7.00%
	4	5.50%	5.50%
25	5+	6.58%	6.58%
30		4.97%	4.97%
35		3.84%	3.84%
40		2.99%	2.99%
45		2.39%	2.39%
50		2.03%	2.03%
55		1.88%	1.88%
60		1.88%	1.88%
Ref.		80	80
		0.47	0.47
		1270	1270

*Rates of disability* among active members. 25% percent are assumed to be ordinary disability and 75% percent are assumed to be accidental disability.

Sample	% of Active Members Becoming Disabled within Next Year		
Ages	Ordinary	Accidental	
20	0.013%	0.039%	
25	0.013%	0.039%	
30	0.013%	0.039%	
35	0.029%	0.088%	
40	0.064%	0.191%	
45	0.114%	0.343%	
50	0.183%	0.549%	
55	0.272%	0.818%	
Ref	35	35	
	0.16	0.49	



### Fire

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

	Salary Increase Assumptions for an Individual Member				
Service	Merit &	Base	Increase		
Index	Seniority	(Economy)	Next Year		
		· · · · · ·			
1	25.00%	2.75%	27.75%		
2	15.00%	2.75%	17.75%		
3	7.00%	2.75%	9.75%		
4	5.00%	2.75%	7.75%		
5	3.75%	2.75%	6.50%		
6	2.50%	2.75%	5.25%		
7	2.00%	2.75%	4.75%		
8	1.50%	2.75%	4.25%		
9	1.00%	2.75%	3.75%		
10	1.00%	2.75%	3.75%		
11	1.00%	2.75%	3.75%		
12	1.00%	2.75%	3.75%		
13	1.00%	2.75%	3.75%		
14	1.00%	2.75%	3.75%		
15	1.00%	2.75%	3.75%		
16	1.00%	2.75%	3.75%		
17	1.00%	2.75%	3.75%		
18	1.00%	2.75%	3.75%		
19	1.00%	2.75%	3.75%		
20	1.00%	2.75%	3.75%		
21	1.00%	2.75%	3.75%		
22	1.00%	2.75%	3.75%		
23	1.00%	2.75%	3.75%		
24	1.00%	2.75%	3.75%		
25	1.00%	2.75%	3.75%		
Ref:	8612.75%				



# Fire (Continued)

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

For Members Hired Prior to July 1, 2011 Who Have Vested Status as of January 1, 2012		For Members Hired on or After July 1, 2011 and for Members Hired Prior to July 1, 2011 Who Have Non-Vested Status as of January 1, 2012					
Retirement Ages	% of Active Members Retiring within Next Year	Age 46 with 21 Years	Age 47 with 22 Years	Age 48 with 23 Years	Age 49 with 24 Years	Age 50 with 25 Year	
45	11%						
46	11%	15%					
47	11%	15%	18%				
48	11%	15%	18%	22%			
49	11%	15%	18%	22%	26%		
50	16%	15%	18%	21%	26%	30%	
51	16%	16%	18%	21%	26%	30%	
52	16%	16%	16%	21%	21%	30%	
53	16%	16%	16%	16%	21%	22%	
54	16%	16%	16%	16%	16%	22%	
55	19%	19%	19%	19%	19%	19%	
56	19%	19%	19%	19%	19%	19%	
57	19%	19%	19%	19%	19%	19%	
58	19%	19%	19%	19%	19%	19%	
59	19%	19%	19%	19%	19%	19%	
60	23%	23%	23%	23%	23%	23%	
61	23%	23%	23%	23%	23%	23%	
62	23%	23%	23%	23%	23%	23%	
63	23%	23%	23%	23%	23%	23%	
64	23%	23%	23%	23%	23%	23%	
65	28%	28%	28%	28%	28%	28%	
66	28%	28%	28%	28%	28%	28%	
67	28%	28%	28%	28%	28%	28%	
68	28%	28%	28%	28%	28%	28%	
69	28%	28%	28%	28%	28%	28%	
70	100%	100%	100%	100%	100%	100%	

45

# Fire (Concluded)

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

		% of Active Members		
Sample	Years of	Separating wi	thin Next Year	
Ages	Service	Male	Female	
	0	7.25%	7.25%	
	1	5.00%	5.00%	
	2	2.50%	2.50%	
	3	2.00%	2.00%	
	4	1.50%	1.50%	
25	5 & Over	1.15%	1.15%	
30		1.15%	1.15%	
35		1.15%	1.15%	
40		1.15%	1.15%	
45		1.15%	1.15%	
50		1.15%	1.15%	
55		1.15%	1.15%	
60		1.15%	1.15%	
Ref.		151	151	
		1.15 1271	1.15 1271	
		12/1	12/1	

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

Sample	% of Active Members Becoming Disabled within Next Year					
Ages	Ordinary	Accidental				
20	0.029%	0.043%				
25	0.042%	0.063%				
30	0.051%	0.076%				
35	0.062%	0.093%				
40	0.085%	0.127%				
45	0.125%	0.187%				
50	0.182%	0.274%				
55	0.275%	0.413%				
Ref	3	3				
	0.24	0.36				



#### Healthy Mortality

The standard mortality tables for death after retirement are the Pub-2010 Healthy Retiree Mortality Tables with credibility adjustments for each group (Police and Fire combined) and projected fully generational mortality improvements using Scale MP-2019.

The applicable published healthy mortality tables for each valuation group are shown below.

Employees:	PubG-2010 amount-weighted Healthy Retiree General Mortality Tables
Teachers:	PubT-2010 amount-weighted Healthy Retiree Teachers Mortality Tables
Police and Fire:	PubS-2010 amount-weighted Healthy Retiree Safety Mortality Tables

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

Sample rates of mortality and future life expectancy years are shown in the following tables.

Sample Attained		Probability of Dying Next Year*			ing		Future Life Expectancy (Years)*	
Ages		Male			Female		Male	Female
35		0.071%			0.035%		51.29	53.71
40		0.087%			0.047%		46.01	48.37
45		0.116%			0.071%		40.75	43.06
50		0.281%			0.231%		35.62	37.86
55		0.421%			0.324%		30.72	32.91
60		0.642%			0.445%		26.00	28.06
65		0.928%			0.646%		21.49	23.35
70		1.434%			1.039%		17.22	18.84
75		2.426%			1.843%		13.26	14.61
80		4.362%			3.396%		9.77	10.84
Ref:	2705	х	1.01	2706	х	1.09		

#### **Employees**

\* Applicable to calendar year 2022. Rates and life expectancy in future years are determined by the MP-2019 projection scale. The rates shown include the credibility adjustment for each member classification.



Sample Attained		Probability of Dying Next Year*			ing		ure Life ncy (Years)*	
Ages		Male			Female		Male	Female
35		0.046%			0.029%	1	53.78	55.85
40		0.056%			0.039%		48.49	50.54
45		0.071%			0.050%		43.22	45.24
50		0.109%			0.081%		37.98	39.97
55		0.220%			0.210%		32.82	34.80
60		0.376%			0.320%		27.84	29.83
65		0.608%			0.453%		23.05	24.97
70		1.015%			0.725%		18.49	20.26
75		1.863%			1.378%		14.25	15.79
80		3.549%			2.743%	I	10.49	11.77
Ref:	2701	х	1.02	2702	Х	1.05		

#### **Teachers**

#### Sample **Probability of Dying Future Life** Next Year\* Attained Expectancy (Years)\* Male Female Male Female Ages 35 0.067% 0.049% 51.84 53.71 40 0.080% 0.060% 46.55 48.39 45 0.122% 0.086% 41.32 43.10 50 0.172% 0.141% 36.15 37.86 55 32.74 0.284% 0.265% 31.06 60 0.504% 0.469% 26.15 27.82 65 0.852% 0.737% 21.50 23.16 70 1.400% 17.17 18.74 1.180% 75 2.440% 2.040% 13.19 14.64 80 4.432% 3.637% 9.71 11.00 Ref: 2703 0.96 2704 0.99 х х

#### **Police and Fire**

\* Applicable to calendar year 2022. Rates and life expectancy in future years are determined by the MP-2019 projection scale. The rates shown include the credibility adjustment for each member classification.



#### **Disabled Mortality**

Disabled pension mortality is based on the Pub-2010 Disabled Retiree Mortality Tables for males and females with fully generational mortality improvements using Scale MP-2019. Due to limited disabled mortality experience, credibility adjustments were not applied.

The applicable published disabled mortality tables for each valuation group are shown below.

Employees:	PubG-2010 amount-weighted Disabled Retiree General Mortality Tables
Teachers:	PubT-2010 amount-weighted Disabled Retiree Teachers Mortality Tables
Police and Fire:	PubS-2010 amount-weighted Disabled Retiree Safety Mortality Tables

The probabilities of disabled mortality at sample attained ages are as follows:

	Probability of Occurrence Next Year*						
Sample	Disabled Death						
Ages	Male	Female					
20	0.439%	0.261%					
25	0.338%	0.205%					
30	0.504%	0.355%					
35	0.682%	0.555%					
40	0.838%	0.751%					
45	1.050%	0.982%					
50	1.501%	1.417%					
55	2.043%	1.809%					
Ref	2711	2712					
	1.00	1.00					

#### **Employees**

\* Applicable to calendar year 2022. Rates and life expectancy in future years are determined by the MP-2019 projection scale.



	Probability of Occurrence Next Year*						
Sample	Disabled Death						
Ages	Male	Female					
20	0.439%	0.261%					
25	0.338%	0.205%					
30	0.504%	0.355%					
35	0.682%	0.555%					
40	0.838%	0.751%					
45	1.050%	0.982%					
50	1.501%	1.417%					
55	2.043%	1.809%					
Ref	2707	2708					
	1.00	1.00					

#### **Teachers**

#### Police and Fire

	Probability of Occurrence Next Year*						
Sample	Disabled Death						
Ages	Male	Female					
20	0.129%	0.059%					
25	0.130%	0.081%					
30	0.174%	0.123%					
35	0.206%	0.167%					
40	0.226%	0.196%					
45	0.252%	0.222%					
50	0.330%	0.290%					
55	0.464%	0.479%					
Ref	2709	2710					
	1.00	1.00					

### Probability of Occurrence Next Year\*

\* Applicable to calendar year 2022. Rates and life expectancy in future years are determined by the MP-2019 projection scale.



#### **Pre-Retirement Mortality**

For active members dying before retirement, the Pub-2010 Employee Mortality Tables for males and females with fully generational mortality improvements using Scale MP-2019. Due to limited active member mortality experience, credibility adjustments were not applied.

The applicable published disabled mortality tables for each valuation group are shown below.

Employees:	PubG-2010 amount-weighted Employee General Mortality Tables
Teachers:	PubT-2010 amount-weighted Employee Teachers Mortality Tables
Police and Fire:	PubS-2010 amount-weighted Employee Safety Mortality Tables

The probabilities of dying prior to retirement at sample attained ages are as follows:

#### **Employees**

	Probability of Occurrence Next Year*					
Sample		Death E	Before	Retir	ement	
Ages		Male			Female	
20		0.039%	6		0.015%	
25		0.034%	6		0.011%	
30		0.051%	6		0.021%	
35		0.070%	6		0.032%	
40		0.086%	6		0.043%	
45		0.102%	6		0.056%	
50		0.139%	6	0.079%		
55	0.212% 0.128%					
Ref	2723	х	1.00	2724	х	1.00

\* Applicable to calendar year 2022. Rates and life expectancy in future years are determined by the MP-2019 projection scale.



#### **Teachers**

	Probability of Occurrence Next Year*							
Sample		Death Before Retirement						
Ages		Male			Female			
20		0.036	%		0.015%			
25		0.019	%		0.011%			
30		0.031%			0.019%			
35		0.045%			0.028%			
40		0.055	%	0.037%				
45		0.070	%		0.048%			
50		0.104	%	0.070%				
55	0.166% 0.111%							
Ref	2719	х	1.00	2720	х	1.00		

### Police and Fire

Sample	Death Before Retirement							
Ages		Male			Female	9		
20		0.044	%		0.018%	/ D		
25		0.045	%		0.025%	/ D		
30		0.058	%		0.037%	/ D		
35		0.070	%		0.050%	/ D		
40		0.077	%		0.059%	/ D		
45		0.086	%		0.067%	0		
50		0.112%			0.112% 0.087%			0
55		0.169%			0.128%	0		
Ref	2721	х	1.00	2722	х	1.00		

### **Probability of Occurrence Next Year\***

\* Applicable to calendar year 2022. Rates and life expectancy in future years are determined by the MP-2019 projection scale.

#### Weighting of Mortality

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

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



# Miscellaneous and Technical Assumptions

Administrative & Investment Expenses	The investment return assumption is intended to be the return net of investment expenses. Assumed administrative expenses are added to the Normal Cost, and were 0.35% of payroll.
Benefit Service	Exact Fractional service is used to determine the amount of benefit payable.
COLA	None assumed.
Decrement Operation	Disability and turnover decrements do not operate during normal retirement eligibility for Group I and Group II members. They do operate for early retirement for Group I members.
Decrement Timing	Normal and early retirement decrements for the Teachers group are assumed to occur at the beginning of the year. All other decrements for all groups were assumed to occur mid-year.
Eligibility Testing	Eligibility for benefits is determined based upon the age nearest birthday and service nearest whole year on the date the decrement is assumed to occur.
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 8.5%, 5.5%, 11.0% and 12.0% for Employees, Teachers, Police and Fire respectively to account for end of career pay increases. Members hired after July 1, 2011 or who have non-vested status as of January 1, 2012 are assumed to have no adjustment for end of career payments.
Marriage Assumption	Group I: 55% of males and 55% of females are assumed to be married for purposes of death-in-service benefits. Group II: 65% of males and 65% of females are assumed to be married for purposes of death-in- service and death after retirement benefits. Male spouses are assumed to be three years older than female spouses for active member valuation purposes.



Normal Form of Benefit	This valuation assumes that members will elect the normal form of payment. Alternate forms of payment are available and are actuarially adjusted based on the valuation interest and mortality.
	Group I: The assumed normal form of benefit is a straight life benefit.
	Group II: The assumed normal form of benefit is straight life for single members and joint and 50% survivor for married members.
Option Factors	Annuity values and factors are based on a 6.75% interest rate and the Pub-2010 Healthy Retiree mortality tables for males and females, adjusted for improvements using Scale MP-2019. While the tables used in the valuations are based on generational mortality, a static model with five years of projection was used for purposes of determining the option factors.
	Unisex mortality was used based on active male/female blends observed in the June 30, 2019 valuation of 39%/61%, 22%/78%, 87%/13% and 97%/3% for Employees, Teachers, Police and Fire, respectively.
	Disabled mortality is based on the Pub-2010 Disabled Retiree mortality tables using a static model with five years of mortality improvement projection.
	For the Group I Straight Life factors, the current practice of not reflecting the changing benefit at age 65 is in the factor.
	Each option factor is determined on an actuarial equivalent basis using valuation assumptions. No adjustment for optional forms of payment are reflected in the valuation.
Pay Increase Timing	Beginning of (Fiscal) year. This is equivalent to assuming that reported pays represent amounts paid to members during the year ended on the valuation date.
New Entrant Profile	For purposes of projecting the normal cost to the beginning of the rate setting biennium, the new entrant profile is based on actual members with 3-8 years of service on the valuation date.
Service Credit Accruals	It is assumed that members accrue one year of service credit per year.
Service Purchases	One month of service was added to the reported service for all active participants in consideration of potential subsidized service purchases in the future.



Split Benefits	Active members with service in more than one plan are valued as if all service accrued is in their current plan. Split benefits are valued upon retirement, as reported in the data.	
Data Adjustments	<ul> <li>Active Data</li> <li>New active member pays were annualized.</li> <li>96 active records were excluded due to reported pays being \$0.</li> <li>2 active records were excluded due to reported employment service being less than 0.</li> <li>4 active members reported as being vested as of 12/31/2011 were also reported as being hired on or after 7/1/2011. For the purposes of retirement eligibility, it was assumed these members were not hired on or after 7/1/2011.</li> </ul>	
	<ul> <li>Deferred Data</li> <li>109 deferred members had a reported accrued benefit of \$0. These members were assumed to receive a refund of member contributions equal the accumulated member contributions reported in the data.</li> </ul>	
	<b>Retiree Data</b> - 1,137 payee records were excluded due to non-blank Benefit Termination Dates.	
	Medical Subsidy Data - 483 records were excluded due to non-blank Benefit Termination Dates.	
Medical Subsidy	Actual medical subsidy recipients are included in the valuation plus 25% of those who opted-out. For those members reported as eligible in the future but not currently receiving, we assumed that members would commence benefits at age eligibility.	
	The solvency rates for the medical subsidy benefits were determined to provide an estimated margin of 20% of the benefits (50% for Teachers) by the end of the first year of the biennium and thereafter. The margin is intended to mitigate the risk of insolvency due to adverse experience.	
	A retired member's medical subsidy amount is provided by System staff. If the member is under the age of 65, the pre-65 subsidy amount used is the amount reported by System staff, and the post-65 subsidy amount is assumed to be at the post-65 rates.	
	It is assumed that 80% of active married members will have their spouses continue to receive a medical subsidy under the plan.	
IRC Section 415(b) and 401(a)(17)	For purposes of the valuation, the limitations under IRC Section 401(a)(17) and 415(b) were not reflected due to immateriality.	



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	For members who have attained vested status prior to January 1, 2012, full base rate of compensation paid plus any overtime pay, holiday and vacation pay, sick pay, longevity or severance pay, cost of living bonus, additional pay for extracurricular and instructional activities or any military differential pay, plus the fair market value of non-cash compensation such as meals or living quarters if subject to federal income tax. Earnable compensation in the final 12 months prior to termination shall be limited to 1 ½ times the higher of the earnable compensation in the 12-month period preceding the final 12 months or the highest compensation year excluding the final 12 months. Earnable compensation is subject to IRC section 401(a)(17) limits.
	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. Earnable compensation is subject to IRC section 401(a)(17) limits. Earnable compensation shall not include incentives to encourage members to retire, severance pay, or end-of-career longevity payments and pay for unused sick or vacation time. Earnable compensation in the final 12 months prior to termination shall be limited to 1 ½ times the higher of the earnable compensation in the 12-month period preceding the final 12 months or the highest compensation year excluding the final 12 months.



	The new definition of earnable compensation is applicable January 1, 2012 for members who have not attained vested status prior to January 1, 2012 and immediately for members who commence service on or after July 1, 2011.
Average Final Compensation	For members who have attained vested status prior to January 1, 2012 – Average annual earnable compensation during the highest 3 years of creditable service.
	For members who commence service on or after July 1, 2011 or who have not attained vested status prior to 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 who commence 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 <sup>th</sup> of AFC times creditable service (1/66 <sup>th</sup> of AFC times creditable service for members who commence 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 who commence 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 who commence 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: If age 60 or older, the Service Retirement Benefit at attained normal retirement eligibility age as calculated under benefit provisions for members hired prior to July 1, 2011. 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 prior to attaining service retirement age, the member's accumulated contributions are refunded. If a member terminates with 10 or more years of service, the member either receives a service retirement benefit beginning at any age after age 60 (age 65 for members who commence service on or after July 1, 2011) or a reduced early service retirement benefit beginning at any age after age 50 (age 60 for members who commence service on or after July 1, 2011 and have at least 30 years of creditable service) or the member may apply for a refund of the member's accumulated contributions.

Maximum Benefit	For members who commenced service prior to July 1, 2009 or have attained vested status prior to January 1, 2012, 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 and have not attained vested status prior to 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	<ol> <li>Termination for reasons other than retirement or death and the member has not elected a vested deferred retirement benefit.</li> <li>Upon death in service other than accidental death described above, the member's accumulated contributions are payable to the beneficiary or estate if, at the time of death, the member is not eligible for a service retirement.</li> <li>Upon death prior to age 60 of a member electing vested deferred retirement, the member's accumulated contributions at the time of death are payable to the beneficiary or estate.</li> <li>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.</li> </ol>	
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(g) or the actual rate of return, whichever is lower.	
Employer Contributions	As prescribed in RSA 100-A:16.	
Temporary Supplemental Allowances	All System members who retired on or before July 1, 2014, or any beneficiaries of such members receiving a survivorship pension benefit shall receive a one-time 1.5% COLA on the first \$50,000 of an annual pension benefit. The COLA will take effect on the retired member's first anniversary date of retirement occurring after July 1, 2020. The adjustment shall become a permanent addition to the member's base retirement allowance.	
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	For members who have attained vested status prior to January 1, 2012, full base rate of compensation paid plus any overtime pay, holiday and vacation pay, sick pay, longevity or severance pay, cost of living bonus, additional pay for 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. Earnable compensation is subject to IRC section 401(a)(17) limits. Compensation for extra and special duty, as determined by the employer, shall be included but limited during the highest 3 years of creditable service as provided in paragraph RSA 100-A:1 XVIII as amended.
	For members who have not attained vested status prior to January 1, 2012, full base rate of compensation paid plus any overtime pay, longevity pay, cost of living bonus, 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. Earnable compensation is subject to IRC section 401(a)(17) limits. Compensation for extra and special duty, as determined by the employer, shall be included but limited during the highest 5 years of creditable service as provided in paragraph RSA 100-A:1 XVIII as amended. Compensation for extra and special duty shall be eliminated for members who commence service on or after July 1, 2011.



	Earnable compensation shall not include incentives to encourage members to retire, severance pay, or end-of- career longevity payments and pay for unused sick or vacation time. Earnable compensation in the final 12 months prior to termination shall be limited to 1 ½ times the higher of the earnable compensation in the 12 month period preceding the final 12 months or the highest compensation year excluding the final 12 months. The new definition of earnable compensation is applicable January 1, 2012
	for members who have not attained vested status prior to January 1, 2012 and immediately for members who commence service on or after July 1, 2011.
Average Final Compensation	For members who have attained vested status prior to January 1, 2012 – Average annual earnable compensation during the highest 3 years of creditable service.
	For members who commence service on or after July 1, 2011 or who have not attained vested status prior to January 1, 2012 – Average annual earnable compensation during the highest 5 years of creditable service.
Service Retirement	Eligibility: Age 45 and 20 years of creditable service or age 60 (age 50 with 25 years of creditable service or age 60 for members who commence 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 who commence 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 not attained vested status prior to 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. The state annuity, together with the member annuity, shall be equal to the multiplier times AFC times creditable service up to 40.5 years. The transition provisions are provided in the following table.



Creditable Service on January 1, 2012	Minimum Years of	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%

Members who have attained vested status prior to January 1, 2012 who have attained the age of 45 with at least 20 years of creditable service, members who commenced service on or after July 1, 2011 who have attained the age of 50 with at least 25 years of creditable service, and members hired prior to July 1, 2011 who have not attained vested status prior to January 1, 2012 who qualify as provided in the transition provisions 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 who have attained vested status prior to 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 hired prior to July 1, 2011 who have not attained vested status prior to 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.

Members who commence 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.



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.
Post Retirement Death	Retired prior to April 1, 1987, benefit payable to surviving spouse until death or remarriage equal to 50% of the member's service (if the member had at least 20 years of creditable service), ordinary disability or accidental disability retirement allowance. Upon the death of a member receiving a service or ordinary disability retirement, a lump sum of \$3,600 is payable also.
	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. 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 accumulated 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 commenced service prior to July 1, 2009 or have attained vested status prior to January 1, 2012, 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 and have not attained vested status prior to 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	<ol> <li>Termination for reasons other than retirement or death and the member has not elected a vested deferred retirement benefit.</li> <li>Upon death in service other than accidental death described above, the member's accumulated contributions are payable to the beneficiary or estate, if at the time of death, the member is not eligible for a service retirement.</li> <li>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 at the time of death.</li> <li>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.</li> <li>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.</li> </ol>				
Member Contributions	Fire members: 11.80% of earnable compensation. Police members: 11.55% of earnable compensation.				
	Member contributions cease for members who have attained vested status prior to 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(g) or the actual rate of return, whichever is lower.				
Employer Contributions	As prescribed in RSA 100-A:16.				
Temporary Supplemental Allowances	All System members who retired on or before July 1, 2014, or any beneficiaries of such members receiving a survivorship pension benefit shall receive a one-time 1.5% COLA on the first \$50,000 of an annual pension benefit. The COLA will take effect on the retired member's first anniversary date of retirement occurring after July 1, 2020. The adjustment shall become a permanent addition to the member's base retirement allowance.				
Other Ancillary Benefits	There are no ancillary benefits - retirement type benefits not required by statutes but which might be deemed a liability if continued beyond the availability of funding by the current funding source.				



### **History of Recent Changes in Plan Provisions**

#### 2022 Legislative Session

#### House Bill No. 1535:

This bill grants a one-time payment of \$500 to members who retired on or before July 1, 2017, or any beneficiaries of such member who is receiving a survivorship pension benefit who has an annual retirement allowance of no more than \$30,000 on June 30, 2022. The one-time payment will be made during state fiscal year 2023.

#### 2019 Legislative Session

#### House Bill No. 616:

This bill grants a one-time, 1.5% COLA on the first \$50,000 of an annual pension benefit to members who retired on or before July 1, 2014, or any beneficiaries of such member who is receiving a survivorship pension benefit. The COLA will take effect on the retired member's first anniversary date of retirement occurring after July 1, 2020. The adjustment shall become a permanent addition to the member's base retirement allowance.

#### 2014 Legislative Session

#### House Bill No. 1494:

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

#### 2012 Legislative Session

- (a) Modifies the calculation of Average Final Compensation (AFC) for members not vested prior to 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.



### **History of Recent Changes in Plan Provisions (Continued)**

- (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 Annual Comprehensive 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 service, reduced for each month prior to the month prior to the momber annuity, shall be equal to 1/66th of AFC times creditable service, reduced for each month prior to the month prior to the month after the member annuity, shall be equal to 1/66th of AFC times creditable service, reduced for each month prior to the month after the member attains age 65 by 1/4 of 1%.
- (e) Group II members commencing service on or after July 1, 2011 are eligible to retire at age 50 with 25 years of creditable service or age 60. The benefit shall be equal to 2% of AFC times creditable service up to 42.5 years. However, a member who commenced service on or after July 1, 2011 shall not receive a service retirement allowance until attaining the age of 52.5, but may receive a reduced allowance after age 50 if the member has at least 25 years of creditable



## **History of Recent Changes in Plan Provisions (Continued)**

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.
- (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 ACFR 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.
- (I) Transfer the balance in each special account component (Employees, Teachers, Police and Fire) to the corresponding components of the State annuity accumulation fund except for funds necessary to comply with RSA 100-A:41-d, III as amended.



## History of Recent Changes in Plan Provisions (Concluded)

#### 2010 Legislative Session

Legislation enacted in the 2010 legislative session is summarized below:

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



### **Medical Subsidy Plan Provisions**

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

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

The above amounts will not increase.

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

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



## **Medical Subsidy Plan Provisions (Concluded)**

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

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

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

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

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

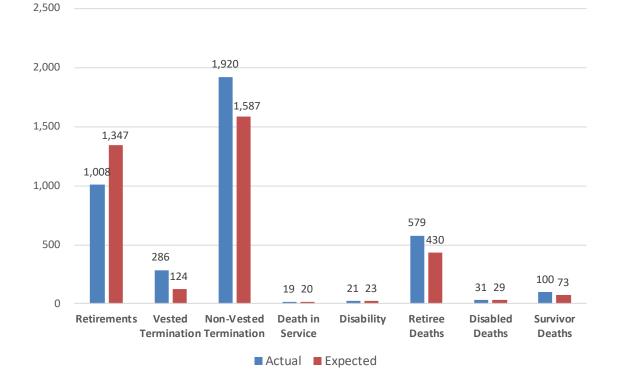


**SECTION D** 

**STATISTICAL SECTION** 

# **Reconciliation of Member Record Counts – Employees**

		Inactive, N	Ionretired			
		Members		Annuitants		
	Active		Non	Service	Disabled	
	Members	Vested	Vested	Retirees	Retirees	Survivors
Participants 6/30/2021	24,558	1,415	10,216	17,394	930	1,722
Terminations - Refund paid	(327)	(19)	(210)			
Terminations - Refund due	(1,593)		1,593			
Vested Termination	(286)	286				
Retirement	(1,008)	(115)		1,157	3	
Disability	(21)				21	
Death before retirement - refund	(18)	(3)	(2)			
Death before retirement - annuity	(1)					1
Death of annuitant - survivor benefit due				(143)	(7)	150
Death of annuitant - no further benefits due				(436)	(24)	(100)
New Entrants	3,268					
Transfers to Other Member Group	(408)					
Transfers from Other Member Group	242					
Reemployments	239	(36)	(198)	(5)		
Data adjustments and corrections	(1)	2	89	62	11	15
Participants 6/30/2022	24,644	1,530	11,488	18,029	934	1,788

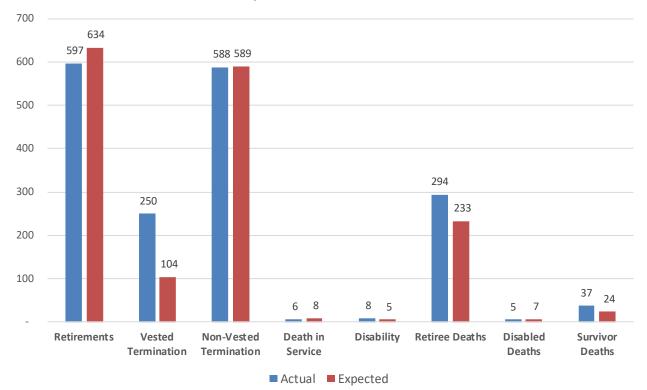


### Actual vs. Expected Decrements - Employees



## **Reconciliation of Member Record Counts – Teachers**

		Inactive, N	Ionretired			
		Men	nbers		Annuitants	
	Active		Non	Service	Disabled	
	Members	Vested	Vested	Retirees	Retirees	Survivors
Participants 6/30/2021	18,131	1,145	3,812	13,668	189	828
Terminations - Refund paid	(6)	(10)	(79)			
Terminations - Refund due	(582)	0	582			
Vested Termination	(250)	250				
Retirement	(597)	(63)		687	0	
Disability	(8)				8	
Death before retirement - refund	(3)	(3)	(1)			
Death before retirement - annuity	(3)					3
Death of annuitant - survivor benefit due				(79)	0	78
Death of annuitant - no further benefits due	2			(215)	(5)	(37)
New Entrants	1,117					
Transfers to Other Member Group	(180)					
Transfers from Other Member Group	346					
Reemployments	252	(61)	(181)	(10)	0	
Data adjustments and corrections		5	41	18	1	20
Participants 6/30/2022	18,217	1,263	4,174	14,069	193	892

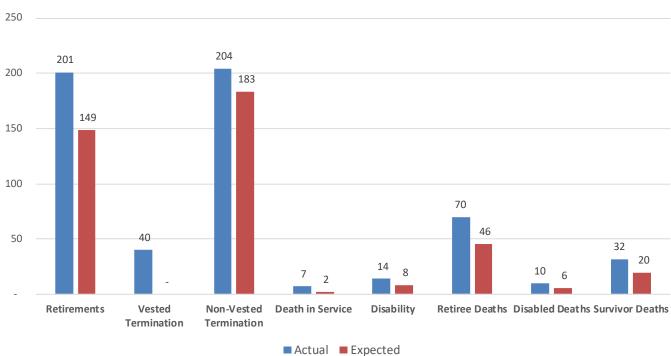


## **Actual vs. Expected Decrements - Teachers**



## **Reconciliation of Member Record Counts – Police**

		Inactive, N	Ionretired			
		Men	nbers		Annuitants	
	Active		Non	Service	Disabled	
	Members	Vested	Vested	Retirees	Retirees	Survivors
Participants 6/30/2021	4,184	143	847	3,453	401	573
Terminations - Refund paid	(64)	(5)	(27)			
Terminations - Refund due	(140)	0	140			
Vested Termination	(40)	40				
Retirement	(201)	(15)		227	2	
Disability	(14)				14	
Death before retirement - refund	(4)	0	0			
Death before retirement - annuity	(3)					3
Death of annuitant - survivor benefit due				(37)	(5)	63
Death of annuitant - no further benefits due				(33)	(5)	(32)
New Entrants	367					
Transfers to Other Member Group	(78)					
Transfers from Other Member Group	72					
Reemployments	24	(3)	(18)	(3)	0	
Data adjustments and corrections	0	0	22	15	4	4
Participants 6/30/2022	4,103	160	964	3,622	411	611

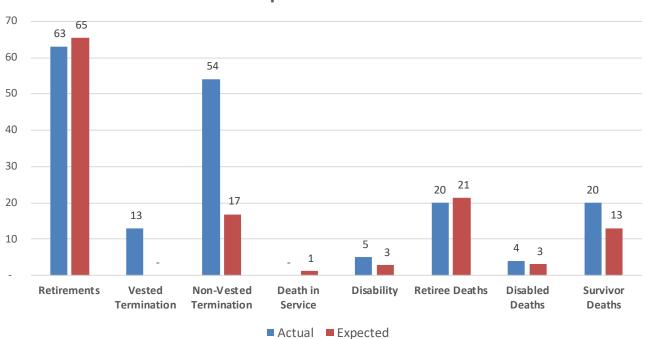


## **Actual vs. Expected Decrements - Police**



## **Reconciliation of Member Record Counts – Fire**

		Inactive, N	Ionretired			
		Mem	nbers		Annuitants	
	Active		Non	Service	Disabled	
	Members	Vested	Vested	Retirees	Retirees	Survivors
Participants 6/30/2021	1,709	27	71	1,381	121	314
Terminations - Refund paid	(25)	(1)	(1)			
Terminations - Refund due	(29)	0	29			
Vested Termination	(13)	13				
Retirement	(63)	(2)		68	0	
Disability	(5)				5	
Death before retirement - refund	0	0	0			
Death before retirement - annuity	0					0
Death of annuitant - survivor benefit due				(10)	(2)	17
Death of annuitant - no further benefits due				(10)	(2)	(20)
New Entrants	131					
Transfers to Other Member Group	(4)					
Transfers from Other Member Group	10					
Reemployments	12	0	(11)	(1)	0	
Data adjustments and corrections	0	0	3	3	0	2
Participants 6/30/2022	1,723	37	91	1,431	122	313

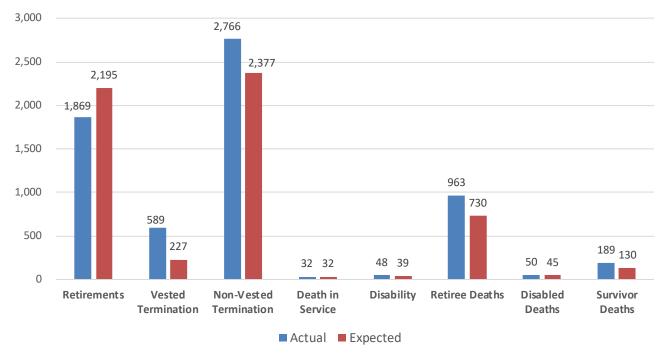


## **Actual vs. Expected Decrements - Fire**



## **Reconciliation of Member Record Counts – NHRS Total**

		Inactive, N	Ionretired			
		Men	nbers		Annuitants	
	Active Members	Vested	Non Vested	Service Retirees	Disabled Retirees	Survivors
Participants 6/30/2021	48,582	2,730	14,946	35,896	1,641	3,437
Terminations - Refund paid Terminations - Refund due	(422) (2,344)	(35)	(317) 2,344			
Vested Termination Retirement Disability	(589) (1,869) (48)	589 (195)		2,139	5 48	
Death before retirement - refund Death before retirement - annuity	(25) (7)	(6)	(3)	(200)	(1.4)	7
Death of annuitant - survivor benefit due Death of annuitant - no further benefits due New Entrants	4,883			(269) (694)	(14) (36)	308 (189)
Reemployments Data adjustments and corrections	527 (1)	(100) 7	(408) 155	(19) 98	16	41
Participants 6/30/2022	48,687	2,990	16,717	37,151	1,660	3,604



## **Actual vs. Expected Decrements - NHRS Total**



	Emplo	oyees	Теас	hers	Pol	ice	Fire		
Year	Number	Average	Number	Average	Number	Average	Number	Average	
Ending	of	Monthly	of	Monthly	of	Monthly	of	Monthly	
June 30,	Recipients	Benefit	Recipients	Benefit	Recipients	Benefit	Recipients	Benefit	
2022	20,751	\$ 1,250	15,154	\$ 1,931	4,644	\$ 3,266	1,866	\$ 3,696	
2021	20,046	1,214	14,685	1,894	4,427	3,183	1,816	3,579	
2020	19,434	1,184	14,198	1,872	4,227	3,113	1,753	3,447	
2019	18,824	1,165	13,740	1,853	4,082	3,076	1,706	3,384	
2018	18,193	1,141	13,223	1,836	3,923	3,027	1,673	3,314	
2017	17,573	1,121	12,696	1,817	3,786	2,992	1,639	3,253	
2016	16,142	1,152	11,410	1,928	3,629	2,978	1,595	3,213	
2015	15,483	1,122	10,859	1,913	3,457	2,917	1,551	3,130	
2014	15,314	1,078	10,965	1,783	3,282	2,930	1,493	3,047	
2013	14,712	1,063	10,407	1,780	3,163	2,905	1,447	3,050	
2012	14,141	1,049	9,956	1,777	2,981	2,894	1,376	3,038	
2011	13,487	1,040	9,427	1,777	2,880	2,823	1,336	2,967	

## **Historical Benefit Recipient Data**



# Historical Membership Data - Retired (Dollars in Thousands)

	Added to Rolls		Rolls	Remov	ed fr	om Rolls	Rolls	Enc	d of Year	Average		% Increase in
Fiscal		Α	nnual		Α	nnual			Annual	1	Annual	Average Annual
Year	No.**	Allo	wances*	No.	Allo	wances	No.	Α	llowances	All	owances	Allowances
2007	3,211	\$	73,490	913	\$	12,081	21,248	\$	357,763	\$	16,837	N/A
2008	2,216		53,600	594		10,923	22,870		400,440		17,509	4.0 %
2009	2,152		51,234	521		8,349	24,501		443,325		18,094	3.3 %
2010	2,161		50,732	817		12,002	25,845		482,055		18,652	3.1 %
2011	1,965		42,344	680		10,051	27,130		514,348		18,959	1.6 %
2012	2,073		41,213	749		11,543	28,454		544,018		19,119	0.8 %
2013	2,153		43,865	878		14,738	29,729		573,145		19,279	0.8 %
2014	2,105		42,200	780		12,676	31,054		602,669		19,407	0.7 %
2015 #	2,731		54,769	2,435		20,416	31,350		637,022		20,320	4.7 %
2016	2,208		53,489	782		12,236	32,776		678,275		20,694	1.8 %
2017	3,794		55,619	876		20,782	35,694		713,112		19,978	(3.5)%
2018	2,168		51,057	850		14,738	37,012		749,431		20,248	1.4 %
2019	2,355		56,216	1,015		17,011	38,352		788,636		20,563	1.6 %
2020	2,222		53,529	962		16,622	39,612		825,543		20,841	1.4 %
2021	2,398		64,482	1,036		17,040	40,974		872,985		21,306	2.2 %
2022	2,662		74,972	1,221		20,660	42,415		927,297		21,862	2.6 %

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

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

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



# Retirees and Beneficiaries Age Distribution Employees

Age		Males		Females
Group	Number	Amount	Average	Number Amount Average
40 - 44				
45 - 49	23	\$ 104,390	\$ 4,539	4 \$ 38,267 \$ 9,567
50 - 54	83	736,098	8,869	27 367,695 13,618
55 - 59	227	4,376,444	19,279	275 5,527,462 20,100
60 - 64	838	18,671,283	22,281	1,283 24,407,472 19,024
65 - 69	1,736	33,865,346	19,508	2,615 40,648,379 15,544
70 - 74	1,865	33,549,061	17,989	2,824 36,846,760 13,048
75 - 79	1,374	21,728,447	15,814	1,922 21,838,650 11,362
80 - 84	666	9,777,398	14,681	979 9,992,420 10,207
85 - 89	345	4,953,210	14,357	516 4,590,075 8,895
90 - 94	128	1,756,675	13,724	207 1,695,561 8,191
95 - 99	21	210,451	10,021	65 458,807 7,059
100 & Over	1	253	253	5 49,476 9,895
TOTAL	7,307	\$ 129,729,056	\$ 17,754	10,722 \$146,461,024 \$13,660

### SERVICE RETIREMENTS

#### **DISABILITY RETIREMENTS**

Age		Males		Females					
Group	Number	Amount	Average	Number		Amount	Average		
25 - 29				1	\$	11,156	\$ 11,156		
30 - 34						,	. ,		
35 - 39	2	\$ 36,141	\$ 18,071	1		10,409	10,409		
40 - 44	4	54,810	13,703	10		135,723	13,572		
45 - 49	7	122,632	17,519	15		255,244	17,016		
50 - 54	28	451,031	16,108	27		387,175	14,340		
55 - 59	52	841,815	16,189	53		795,788	15,015		
60 - 64	85	1,292,177	15,202	105		1,535,162	14,621		
65 - 69	75	1,103,909	14,719	121		1,674,904	13,842		
70 - 74	90	1,312,720	14,586	87		1,064,359	12,234		
75 - 79	44	684,414	15,555	64		827,385	12,928		
80 - 84	21	308,061	14,670	27		351,794	13,029		
85 - 89	5	59,282	11,856	5		78,423	15,685		
90 - 94	2	32,833	16,417	2		25,056	12,528		
95 - 99				1		10,069	10,069		
100 & Over									
TOTAL	415	\$ 6,299,825	\$ 15,180	519	\$	7,162,647	\$ 13,801		



# Retirees and Beneficiaries Age Distribution Employees

Age	Males				Females					
Group	Number		Amount	Average	Number	Amount	Average			
Under 20					1	\$ 3,276	\$ 3,276			
20 - 24	3	\$	7,026	\$ 2 <i>,</i> 342	2	13,177	6,589			
25 - 29					3	11,525	3,842			
30 - 34	4		45,519	11,380	2	6,384	3,192			
35 - 39	4		35,295	8,824	1	4,246	4,246			
40 - 44	6		28,364	4,727	5	20,162	4,032			
45 - 49	6		45,295	7 <i>,</i> 549	8	44,300	5 <i>,</i> 538			
50 - 54	13		138,251	10,635	22	132,531	6,024			
55 - 59	16		116,926	7,308	42	430,347	10,246			
60 - 64	28		229,820	8,208	84	1,169,721	13,925			
65 - 69	48		548,140	11,420	158	2,165,766	13,707			
70 - 74	51		441,059	8,648	245	3,451,596	14,088			
75 - 79	77		749,606	9,735	273	3,546,320	12,990			
80 - 84	51		442,397	8,674	229	3,043,365	13,290			
85 - 89	35		248,725	7,106	219	2,815,062	12,854			
90 - 94	14		90,680	6,477	103	1,373,929	13,339			
95 - 99	2		33,053	16,527	30	254,905	8,497			
100 & Over					3	37,939	12,646			
TOTAL	358	\$	3,200,156	\$ 8,939	1,430	\$ 18,524,551	\$ 12,954			

### **BENEFICIARIES OF DECEASED MEMBERS**



# Retirees and Beneficiaries Age Distribution Teachers

Age		Males			Females			
Group	Number		Amount	A	verage	Number	Amount	Average
45 - 49	1	\$	2,290	\$	2,290	2	\$ 18,510	\$ 9,255
50 - 54	7		111,841		15,977	14	266,767	19,055
55 - 59	47		1,249,360		26,582	164	3,984,916	24,298
60 - 64	283		8,602,750		30,398	1,128	30,076,202	26,663
65 - 69	640		17,174,490		26,835	2,611	63,700,000	24,397
70 - 74	1,061		25,963,134		24,470	3,251	74,077,949	22,786
75 - 79	861		21,012,618		24,405	2,087	42,636,372	20,430
80 - 84	328		8,020,702		24,453	766	15,065,983	19,668
85 - 89	165		4,244,139		25,722	391	7,911,065	20,233
90 - 94	56		1,268,186		22,646	141	2,732,312	19,378
95 - 99	13		329,607		25,354	48	814,959	16,978
100 & Over						4	60,066	15,017
TOTAL	3,462	\$	87,979,117	\$	25,413	10,607	\$ 241,345,101	\$ 22,753

### SERVICE RETIREMENTS

### **DISABILITY RETIREMENTS**

Age		Males		Females						
Group	Number		Amount		Average	Num	ber		Amount	Average
35 - 39							1	\$	17,216	\$ 17,216
40 - 44	1	\$	15,392	\$	15,392		2		25,708	12,854
45 - 49							3		38,573	12,858
50 - 54	5		104,153		20,831		5		99,195	19,839
55 - 59	4		75,964		18,991		21		383,642	18,269
60 - 64	7		119,018		17,003		28		550,111	19,647
65 - 69	3		41,190		13,730		26		525,668	20,218
70 - 74	8		112,787		14,098		30		563,260	18,775
75 - 79	6		141,458		23,576		16		233,519	14,595
80 - 84	4		85,084		21,271		17		289,165	17,010
85 - 89	1		18,682		18,682		2		43,613	21,807
90 - 94	1		10,225		10,225		2		41,282	20,641
TOTAL	40	\$	723,953	\$	18,099	1	53	\$	2,810,952	\$ 18,372



# Retirees and Beneficiaries Age Distribution Teachers

Age		Males			Females	
Group	Number	Amount	Average	Number	Amount	Average
25 - 29	3	\$ 27,388	\$ 9,129	2	\$ 18,668	\$ 9,334
30 - 34	1	9,582	9,582	2	13,237	6,619
35 - 39	1	4,813	4,813	4	39,172	9,793
40 - 44	2	24,650	12,325	5	21,934	4,387
45 - 49	4	47,761	11,940	2	4,919	2,460
50 - 54	10	114,325	11,433	6	68,082	11,347
55 - 59	12	156,566	13,047	10	70,139	7,014
60 - 64	21	301,547	14,359	28	608,651	21,738
65 - 69	46	802,090	17,437	53	1,045,212	19,721
70 - 74	63	1,371,543	21,771	106	2,370,091	22,359
75 - 79	68	1,079,783	15,879	122	2,970,841	24,351
80 - 84	56	990,249	17,683	119	3,045,023	25,588
85 - 89	28	444,757	15,884	65	1,563,499	24,054
90 - 94	10	200,144	20,014	31	716,320	23,107
95 - 99	3	72,040	24,013	8	101,320	12,665
100 & Over				1	3,401	3,401
TOTAL	328	\$5,647,238	\$17,217	564	\$12,660,509	\$22,448

### **BENEFICIARIES OF DECEASED MEMBERS**



# Retirees and Beneficiaries Age Distribution Police

Age		Males			Females	
Group	Number	Amount	Average	Number	Amount	Average
35 - 39						
40 - 44	1	\$ 14,326	\$ 14,326	5	\$ 24,628	\$ 4,926
45 - 49	208	11,452,334	55,059	41	1,312,543	32,013
50 - 54	401	22,344,379	55,722	87	2,480,689	28,514
55 - 59	510	29,221,846	57,298	119	3,207,620	26,955
60 - 64	559	28,400,810	50,806	132	3,222,256	24,411
65 - 69	472	20,919,311	44,321	101	2,163,601	21,422
70 - 74	379	14,263,677	37,635	72	1,385,653	19,245
75 - 79	255	8,709,635	34,155	52	675,158	12,984
80 - 84	123	3,955,201	32,156	21	261,369	12,446
85 - 89	57	1,579,575	27,712	10	182,594	18,259
90 - 94	13	295,713	22,747	2	26,482	13,241
95 - 99	1	29,279	29,279	1	14,883	14,883
100 & Over						
TOTAL	2,979	\$ 141,186,086	\$ 47,394	643	\$ 14,957,476	\$ 23,262

### SERVICE RETIREMENTS

#### **DISABILITY RETIREMENTS**

Age		Males		Females				
Group	Number	Amount	Average	Number		Amount	Average	
30 - 34	5	\$ 160,354	\$ 32,071	1	\$	9,489	\$ 9,489	
35 - 39	3	103,216	34,405	2		64,115	32,058	
40 - 44	14	600,397	42,886	8		309,654	38,707	
45 - 49	40	1,887,597	47,190	10		385,129	38,513	
50 - 54	42	1,693,920	40,331	9		343,522	38,169	
55 - 59	51	1,863,173	36,533	11		369,819	33,620	
60 - 64	44	1,495,954	33,999	10		280,638	28,064	
65 - 69	41	1,368,713	33,383	7		201,243	28,749	
70 - 74	40	1,358,470	33,962	10		282,568	28,257	
75 - 79	35	1,031,690	29,477	6		123,708	20,618	
80 - 84	12	372,533	31,044					
85 - 89	7	194,165	27,738	1		12,543	12,543	
90 - 94	2	42,836	21,418					
95 - 99		-						
100 & Over								
TOTAL	336	\$ 12,173,018	\$ 36,229	75	\$	2,382,428	\$ 31,766	



# Retirees and Beneficiaries Age Distribution Police

Age			Males		Females			
Group	Number	umber Amount		Average	Number	Amount	Average	
Under 20								
20 - 24								
	2	÷		ć 12 022				
25 - 29	2	\$	26,065	\$ 13,033	4			
30 - 34	2		22,467	11,234		. ,	\$ 75,544	
35 - 39					1	11,484	11,484	
40 - 44	1		3,478	3,478	4	154,129	38,532	
45 - 49	1		3,478	3,478	5	57,813	11,563	
50 - 54	- 1		4,051	4,051	10	234,219	23,422	
55 - 59	5		48,328	9,666	22	603,699	27,441	
55 55	5		40,520	5,000	22	003,055	27,441	
60 - 64	3		43,183	14,394	60	1,227,081	20,451	
65 - 69	7		93 <i>,</i> 348	13,335	90	2,100,961	23,344	
70 - 74	5		76,073	15,215	116	2,137,042	18,423	
75 - 79	2		21,676	10,838	94	1,795,980	19,106	
80 - 84	3		41,291	13,764	89	1,260,514	14,163	
85 - 89					55	729,846	13,270	
90 - 94					23	384,289	16,708	
95 - 99	1		5,441	5,441	6	115,658	19,276	
100 & Over					2	18,976	9,488	
TOTAL	33	\$	388,879	\$ 11,784	578	\$ 10,907,235	\$ 18,871	

## **BENEFICIARIES OF DECEASED MEMBERS**



# Retirees and Beneficiaries Age Distribution Fire

#### SERVICE RETIREMENTS

Age	Males Females							
Group	Number	Amount	Average	Number	Amount	Average		
35 - 39								
40 - 44				2	\$ 7,990	\$ 3,995		
45 - 49	36	\$ 2,050,203	\$56,950	1	3,660	3,660		
50 - 54	118	7,036,866	59 <i>,</i> 634	25	548,383	21,935		
55 - 59	201	13,061,105	64,981	28	602,503	21,518		
60 - 64	252	16,371,306	64,966	33	613,261	18,584		
65 - 69	281	14,403,423	51,258	37	650,439	17,579		
70 - 74	188	8,952,616	47,620	11	163,588	14,872		
75 - 79	100	4,027,096	40,271	5	113,233	22,647		
80 - 84	62	2,461,537	39,702	2	39,218	19,609		
85 - 89	33	1,008,554	30,562					
90 - 94	12	340,582	28,382					
95 - 99	4	102,422	25,606					
100 & Over								
TOTAL	1,287	\$69,815,710	\$54,247	144	\$ 2,742,275	\$ 19,044		

### **DISABILITY RETIREMENTS**

Age		Males			Females	
Group	Number	Amount	Average	Number	Amount	Average
30 - 34	1	\$ 44,490	\$ 44,490	1	\$ 44,138	\$ 44,138
35 - 39	1	16,752	16,752			
40 - 44	5	158,134	31,627			
45 - 49	9	354,318	39,369			
50 - 54	11	485,803	44,164			
55 - 59	19	801,521	42,185	4	129,767	32,442
60 - 64	16	558,716	34,920	1	41,512	41,512
65 - 69	15	511,432	34,095	1	26,851	26,851
70 - 74	12	365,559	30,463			
75 - 79	9	253,733	28,193			
80 - 84	9	279,762	31,085			
85 - 89	7	169,791	24,256			
90 - 94	1	35,021	35,021			
100 & Over			-			
TOTAL	115	\$4,035,032	\$35,087	7	\$242,268	\$34,610
IUIAL	112	ş4,055,032	222,00/	/	<i>٦٤42,20</i> 8	354,01U



# Retirees and Beneficiaries Age Distribution Fire

Age		Males		Females			
Group	Number	Amount	Average	Number	Amount	Average	
Under 20							
20 - 24	1	\$ 6,001	\$ 6,001				
25 - 29							
30 - 34	1	6,001	6,001				
35 - 39				1	\$ 6,001	\$ 6,001	
40 - 44							
45 - 49				1	47,601	47,601	
50 - 54	2	22,343	11,172	6	160,477	26,746	
55 - 59	1	4,030	4,030	13	276,541	21,272	
60 - 64	2	6,882	3,441	25	466,367	18,655	
65 - 69	1	2,825	2,825	47	1,034,188	22,004	
70 - 74				46	855,259	18,593	
75 - 79				62	1,306,486	21,072	
80 - 84	1	16,091	16,091	43	644,989	15,000	
85 - 89				32	633,991	19,812	
90 - 94				22	341,046	15,502	
95 - 99	1	25,450	25,450	5	59,703	11,941	
100 & Over							
TOTAL	10	\$89,623	\$8,962	303	\$5,832,649	\$ 19,250	

## **BENEFICIARIES OF DECEASED MEMBERS**



## **Active Members by Valuation Division**

Valuation	Active	Valuation		Average	
Group	Members	Payroll	Age	Service*	Pay
Employees:					
Male	9,751	\$ 596,060,280	48.1	10.5	\$61,128
Female	14,893	771,422,869	49.0	10.2	51,798
Total	24,644	1,367,483,149	48.7	10.3	55,489
Teachers:					
Male	3,787	269,101,499	45.9	14.2	71,059
Female	14,430	957,468,061	45.4	12.8	66,353
Total	18,217	1,226,569,560	45.5	13.1	67,331
Police:					
Male	3,485	291,959,019	38.5	10.6	83,776
Female	618	44,540,593	37.5	8.1	72,072
Total	4,103	336,499,612	38.3	10.3	82,013
Fire:					
Male	1,664	143,072,723	41.0	12.7	85,981
Female	59	3,958,951	35.5	7.5	67,101
Total	1,723	147,031,674	40.8	12.5	85,335
Total:					
Male	18,687	1,300,193,521	45.2	11.5	69,577
Female	30,000	1,777,390,474	47.0	11.4	59,246
Grand Total	48,687	\$3,077,583,995	46.3	11.4	\$63,212

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

Valuation	Active	Valuation
Group	Members	Payroll
Employees:		
State	9,824	\$ 623,069,109
Political Subdivisions	14,820	744,414,040
Subtotal	24,644	1,367,483,149
Teachers:	18,217	1,226,569,560
Police:		
State	1,007	93,123,988
Political Subdivisions	3,096	243,375,624
Subtotal	4,103	336,499,612
Fire:		
State	32	2,541,964
Political Subdivisions	1,691	144,489,710
Subtotal	1,723	147,031,674
Total	48,687	\$ 3,077,583,995



## Employees June 30, 2022

### **EMPLOYEES**

			Totals						
Attained			Valuation						
Age	0-4	5-9	10-14	15-19	20-24	25-29	30 Plus	No.	Payroll
15-19	46							46	\$ 1,210,211
20-24	710	6						716	24,121,452
25-29	1,301	186						1,487	63,951,929
30-34	1,243	553	92	3				1,891	94,263,548
35-39	1,187	617	343	175	3			2,325	124,289,140
40-44	1,038	555	333	356	129			2,411	136,545,064
45-49	1,029	543	322	360	288	60	5	2,607	152,629,486
50-54	1,133	664	458	481	416	244	131	3,527	209,429,533
55-59	1,036	682	585	614	484	315	378	4,094	244,736,049
60-64	768	633	561	646	460	248	332	3,648	209,146,987
65-69	256	264	209	286	206	111	142	1,474	84,205,707
70+	92	55	64	63	56	33	55	418	22,954,043
TOTAL	9,839	4,758	2,967	2,984	2,042	1,011	1,043	24,644	\$ 1,367,483,149

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

Age: 48.7 years Service: 10.3 years Annual Pay: \$55,489



## Teachers June 30, 2022

			Totals						
Attained		Years		Valuation					
Age	0-4	5-9	10-14	15-19	20-24	25-29	30 Plus	No.	Payroll
20-24	302							302	\$ 12,342,737
25-29	1,120	255						1,375	64,674,186
30-34	794	994	123					1,911	101,982,648
35-39	540	666	846	167				2,219	136,879,462
40-44	506	509	585	991	178	1		2,770	191,809,854
45-49	426	421	377	591	735	86		2,636	189,667,760
50-54	329	395	384	431	552	447	49	2,587	190,567,236
55-59	222	260	288	403	370	261	356	2,160	162,197,933
60-64	115	136	163	314	323	183	360	1,594	123,251,131
65-69	42	31	65	93	101	80	139	551	44,453,111
70+	9	6	15	18	19	21	24	112	8,743,502
TOTAL	4,405	3,673	2,846	3,008	2,278	1,079	928	18,217	\$ 1,226,569,560

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

Age: 45.5 years Service: 13.1 years Annual Pay: \$67,331



## Police June 30, 2022

							_		Totals
Attained			Valuation						
Age	0-4	5-9	10-14	15-19	20-24	25-29	30 Plus	No.	Payroll
15-19	5							5	\$ 119,892
20-24	258							258	13,725,091
25-29	553	151						704	45,455,325
30-34	299	373	84					756	56,550,005
35-39	128	163	254	102				647	55,004,921
40-44	56	69	114	261	88	3		591	56,581,496
45-49	40	40	58	133	159	26	1	457	44,950,734
50-54	39	41	39	77	97	63	9	365	35,557,621
55-59	30	33	32	42	34	17	21	209	18,749,516
60-64	9	11	8	13	19	9	10	79	6,960,321
65-69	5	1	5	3	4		6	24	2,177,549
70+	1	1	1	1		2	2	8	667,141
TOTAL	1,423	883	595	632	401	120	49	4,103	\$ 336,499,612

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

Age: 38.3 years Service: 10.3 years Annual Pay: \$82,013



## Fire June 30, 2022

							_		Totals
Attained			Valuation						
Age	0-4	5-9	10-14	15-19	20-24	25-29	30 Plus	No.	Payroll
20-24	76							76	\$ 4,398,251
25-29	152	60						212	13,498,637
30-34	116	111	39					266	19,392,669
35-39	59	67	95	58				279	22,767,076
40-44	32	37	46	102	41	1		259	23,501,138
45-49	12	11	24	65	79	13	1	205	20,409,617
50-54	8	8	22	71	73	38	12	232	23,754,365
55-59	8	4	9	24	39	22	28	134	13,539,340
60-64	3	5	5	12	13	2	9	49	4,708,268
65-69	2	1			3		4	10	1,003,613
70+			1					1	58,700
TOTAL	468	304	241	332	248	76	54	1,723	\$ 147,031,674

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

Age: 40.8 years Service: 12.5 years Annual Pay: \$85,335



## Total June 30, 2022

								Totals							
Attained		Years		Valuation											
Age	0-4	5-9	10-14	15-19	20-24	25-29	30 Plus	No.	Payroll						
15-19	51							51	\$ 1,330,103						
20-24	1,346	6						1,352	54,587,531						
25-29	3,126	652						3,778	187,580,077						
30-34	2,452	2,031	338	3				4,824	272,188,870						
35-39	1,914	1,513	1,538	502	3			5,470	338,940,599						
40-44	1,632	1,170	1,078	1,710	436	5		6,031	408,437,552						
45-49	1,507	1,015	781	1,149	1,261	185	7	5 <i>,</i> 905	407,657,597						
50-54	1,509	1,108	903	1,060	1,138	792	201	6,711	459,308,755						
55-59	1,296	979	914	1,083	927	615	783	6 <i>,</i> 597	439,222,838						
60-64	895	785	737	985	815	442	711	5 <i>,</i> 370	344,066,707						
65-69	305	297	279	382	314	191	291	2 <i>,</i> 059	131,839,980						
70+	102	62	81	82	75	56	81	539	32,423,386						
TOTAL	16,135	9,618	6,649	6,956	4,969	2,286	2,074	48,687	48,687 \$3,077,583,995						

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

Age: 46.3 years Service: 11.4 years Annual Pay: \$63,212



## **Historical Membership Data - Active**

Valuation	Active M	embers	_	Covered Pay	roll	Average	Salary	Av	erage	
Date	No.	% Inc.*		\$ Amount	% Inc.*	\$ Amount	% Inc.*	Age	Service	
2007	50,802	(0.3%)	\$	2,195,339,382	3.6%	\$ 43,214	3.9%	45.6	10.6	
2008	50,988	0.2%		2,308,320,669	5.1%	45,272	4.8%	45.7	10.6	
2009	51,032	0.0%		2,448,287,042	6.1%	47,976	6.0%	46.0	10.9	
2010	50,467	(0.6%)		2,481,383,620	1.4%	49,168	2.5%	46.3	11.1	
2011	49,738	(0.7%)		2,517,779,470	1.5%	50,621	3.0%	46.6	11.4	
2012	48,625	(1.1%)		2,487,757,437	(1.2%)	51,162	1.1%	46.9	11.8	
2013	48,688	0.1%		2,501,741,708	0.6%	51,383	0.4%	47.0	12.0	
2014	48,307	(0.4%)		2,507,898,809	0.2%	51,916	1.0%	47.1	12.1	
2015	47,812	(0.5%)		2,575,031,210	2.7%	53,857	3.7%	47.0	12.1	
2016	48,069	0.3%		2,601,403,606	1.0%	54,118	0.5%	46.9	12.1	
2017	47,886	(0.2%)		2,667,611,532	2.5%	55,708	2.9%	46.9	12.1	
2018	48,121	0.2%		2,752,235,069	3.2%	57,194	2.7%	46.8	12.0	
2019	48,288	0.2%		2,825,006,022	2.6%	58,503	2.3%	46.7	11.9	
2020	48,479	0.2%		2,894,708,279	2.5%	59,711	2.1%	46.7	11.8	
2021	48,582	0.1%		2,972,968,504	2.7%	61,195	2.5%	46.5	11.7	
2022	48,687	0.1%		3,077,583,995	3.5%	63,212	3.3%	46.3	11.4	

## Total

\* Average annual increase.

# By Valuation Group (Valuation Payroll in Thousands)

	Fiscal Year	Active Members <sup>#</sup>	Valuation Payroll	Average Compensation	% Inc.*
				•	
Employees	2022	24,644	\$1,367,483	\$55,489	4.75 %
Teachers		18,217	1,226,570	67,331	1.88 %
Police		4,103	336,500	82,013	4.83 %
Fire		1,723	147,032	85,335	(0.43)%
Total		48,687	\$3,077,585	\$63,212	3.30 %

	Fiscal	Active	Valuation	Average	
	Year	Members <sup>#</sup>	Payroll	Compensation	% Inc.*
Employees	2021	24,558	\$1,300,926	\$52,974	2.25 %
Teachers		18,131	1,198,236	66,088	2.00 %
Police		4,184	327,342	78,237	3.09 %
Fire		1,709	146,464	85,702	7.20 %
Total		48,582	\$2,972,968	\$61,195	2.49 %

# Excludes temporary inactive members.

\* Average annual increase.



## **Historical Active Member Data**

#### Employees

	Active M	embers	Valuation P	ayroll	Average S	Salary		
Fiscal		Percent	Amount in	Percent		Percent	Average	Average
Year	Number	Change	\$ Thousands	Change	\$ Amount	Change	Age	Service
2022	24,644	0.4%	\$ 1,367,483	5.1%	\$ 55,489	4.7%	48.7	10.3
2021	24,558	-0.2%	1,300,926	2.1%	52,974	2.2%	48.9	10.7
2020	24,602	-0.2%	1,274,597	2.4%	51,809	2.6%	49.0	10.8
2019	24,654	0.6%	1,244,930	3.3%	50,496	2.7%	49.0	10.8
2018	24,511	0.1%	1,205,121	2.2%	49,167	2.0%	49.1	11.0
2017	24,478	-0.2%	1,179,518	3.8%	48,187	4.0%	49.2	11.1
2016	24,520	0.9%	1,136,451	0.8%	46,348	-0.1%	49.2	11.2
2015	24,298	-1.0%	1,127,766	3.6%	46,414	4.7%	49.2	11.2
2014	24,545	-1.1%	1,088,508	0.9%	44,347	1.9%	49.2	11.2
2013	24,809	0.3%	1,079,245	0.2%	43,502	0.0%		
2012	24,747	-3.1%	1,076,831	-3.3%	43,514	-0.2%		
2011	25,539	-1.7%	1,113,867	1.9%	43,614	3.7%		
2010	25,987	-1.4%	1,093,147	1.3%	42,065	2.7%		
2009	26,352	-0.6%	1,079,157	6.8%	40,952	7.5%		
2008	26,507	0.1%	1,010,032	7.2%	38,104	7.1%		
2007	26,474	0.2%	942,319	7.2%	35,594	6.9%		
2005	26,414	0.2%	879,419	10.2%	33,294	10.0%		
2003	26,371	8.0%	798,241	18.0%	30,270	9.2%		
2001	24,413	8.4%	676,536	15.0%	27,712	6.1%		
1999	22,519	5.7%	588,290	9.8%	26,124	3.9%		
1997	21,307	2.8%	535,936	1.6%	25,153	-1.3%		
1995	20,717		527,715		25,473			

#### Teachers

	Active M	embers	Valuation P	ayroll	Average	Salary		
Fiscal		Percent	Amount in	Percent		Percent	Average	Average
Year	Number	Change	\$ Thousands	Change	\$ Amount	Change	Age	Service
2022	18,217	0.5%	\$ 1,226,570	2.4%	\$ 67,331	1.9%	45.5	13.1
2021	18,131	1.2%	1,198,236	3.2%	66,088	2.0%	45.6	13.2
2020	17,917	1.1%	1,160,884	2.2%	64,792	1.2%	45.8	13.3
2019	17,730	-0.1%	1,135,607	1.7%	64,050	1.9%	46.0	13.4
2018	17,752	0.8%	1,116,218	4.0%	62,878	3.2%	46.0	13.4
2017	17,617	-0.9%	1,073,447	0.7%	60,932	1.7%	46.1	13.5
2016	17,784	0.3%	1,065,621	1.4%	59,920	1.1%	46.2	13.5
2015	17,732	-1.4%	1,050,447	1.6%	59,240	3.1%	46.3	13.4
2014	17,986	-0.5%	1,033,867	-0.6%	57,482	0.0%	46.3	13.4
2013	18,084	-0.4%	1,039,933	0.3%	57,506	0.7%		
2012	18,161	-1.7%	1,036,605	0.0%	57,079	1.7%		
2011	18,466	-0.7%	1,036,376	1.5%	56,123	2.3%		
2010	18,603	-0.6%	1,020,745	1.7%	54,870	2.3%		
2009	18,709	1.1%	1,003,514	4.9%	53,638	3.7%		
2008	18,509	0.2%	957,068	3.8%	51,708	3.6%		
2007	18,477	0.0%	922,308	8.3%	49,917	8.3%		
2005	18,474	-1.3%	851,664	6.5%	46,101	7.9%		
2003	18,710	5.6%	799,544	14.2%	42,734	8.1%		
2001	17,718	10.5%	700,361	14.9%	39,528	4.0%		
1999	16,034	6.5%	609,275	9.9%	37,999	3.3%		
1997	15,062	4.5%	554,208	7.7%	36,795	3.1%		
1995	14,419		514,653		35,693			



## **Historical Active Member Data**

Police

	Active M	embers	V	aluation Pa	ayroll		Average S	alary		
Fiscal		Percent	An	nount in	Percent			Percent	Average	Average
Year	Number	Change	\$ Tł	nousands	Change	\$ /	Amount	Change	Age	Service
2022	4,103	-1.9%	\$	336,500	2.8%	\$	82,013	4.8%	38.3	10.3
2021	4,184	-1.7%		327,342	1.3%		78,237	3.1%	38.8	10.6
2020	4,256	0.9%		322,994	3.2%		75,891	2.2%	39.0	10.8
2019	4,216	0.5%		313,016	3.6%		74,245	3.1%	38.9	10.8
2018	4,197	1.1%		302,199	3.8%		72,004	2.7%	38.9	10.8
2017	4,151	0.3%		291,004	3.7%		70,104	3.4%	39.1	11.0
2016	4,139	-0.8%		280,577	0.4%		67,789	1.2%	39.2	11.0
2015	4,174	0.2%		279,555	3.3%		66,975	3.1%	39.2	10.9
2014	4,166	-0.5%		270,497	1.4%		64,930	1.9%	39.3	11.1
2013	4,187	1.7%		266,775	1.9%		63,715	0.2%		
2012	4,118	-0.3%		261,865	0.9%		63,590	1.2%		
2011	4,130	-2.4%		259,509	0.4%		62,835	2.9%		
2010	4,231	-2.0%		258,472	0.2%		61,090	2.3%		
2009	4,318	-0.3%		257,934	5.6%		59 <i>,</i> 735	5.9%		
2008	4,332	1.6%		244,314	4.7%		56,398	3.0%		
2007	4,263	-6.8%		233,348	5.4%		54,738	13.0%		
2005	4,573	6.2%		221,456	13.0%		48,427	6.4%		
2003	4,305	4.4%		196,022	14.3%		45,534	9.5%		
2001	4,124	14.6%		171,489	24.3%		41,583	8.5%		
1999	3,600	6.1%		137,981	10.7%		38,328	4.3%		
1997	3,393	4.3%		124,669	8.4%		36,743	4.0%		
1995	3,254			114,994			35,339			

Fire

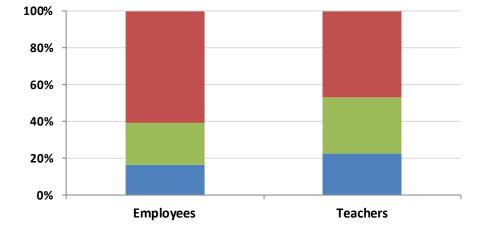
	Active M	embers	v	aluation Pa	ayroll		Average S	Salary		
Fiscal		Percent	An	nount in	Percent			Percent	Average	Average
Year	Number	Change	\$ TI	nousands	Change	\$1	Amount	Change	Age	Service
2022	1,723	0.8%	\$	147,032	0.4%	\$	85,335	-0.4%	40.8	12.5
2021	1,709	0.3%		146,464	7.5%		85,702	7.2%	41.1	12.8
2020	1,704	0.9%		136,234	3.6%		79,949	2.7%	41.3	13.1
2019	1,688	1.6%		131,453	2.1%		77,875	0.5%	41.3	13.1
2018	1,661	1.3%		128,697	4.1%		77,481	2.8%	41.4	13.2
2017	1,640	0.9%		123,643	4.1%		75 <i>,</i> 392	3.2%	41.3	13.2
2016	1,626	1.1%		118,754	1.3%		73,034	0.1%	41.4	13.2
2015	1,608	-0.1%		117,263	1.9%		72,925	2.1%	41.3	13.2
2014	1,610	0.1%		115,027	-0.7%		71,445	-0.8%	41.5	13.3
2013	1,608	0.6%		115,788	3.0%		72,007	2.4%		
2012	1,599	-0.2%		112,456	4.1%		70,329	4.4%		
2011	1,603	-2.6%		108,028	-0.9%		67,391	1.7%		
2010	1,646	-0.4%		109,020	1.2%		66,233	1.7%		
2009	1,653	0.8%		107,682	11.1%		65,144	10.2%		
2008	1,640	3.3%		96,907	-0.5%		59 <i>,</i> 090	-3.6%		
2007	1,588	-0.7%		97,365	7.0%		61,313	7.7%		
2005	1,599	4.9%		91,029	15.1%		56,929	9.7%		
2003	1,524	6.4%		79,072	17.2%		51,885	10.2%		
2001	1,433	7.0%		67,485	16.2%		47,094	8.6%		
1999	1,339	3.9%		58,081	10.6%		43,376	6.5%		
1997	1,289	0.0%		52,500	4.7%		40,729	4.7%		
1995	1,289			50,151			38,907			



## **Active Member Counts by Tier Group**

Group I

	Employees	Teachers
Hired Prior to 7/1/2011 and Vested as of 1/1/2012	4,054	4,133
Hired Prior to 7/1/2011 and Not Vested as of 1/1/2012	5,632	5,513
Hired on or After 7/1/2011	14,958	8,571
Total	24,644	18,217



### Hired on or After 7/1/2011

Hired Prior to 7/1/2011 and Not Vested as of 1/1/2012

Hired Prior to 7/1/2011 and Vested as of 1/1/2012

			Group II			
					Police	Fire
Hi	red Prior to 7/1/2	011 and Vested a	as of 1/1/2012		516	344
Hi	red Prior to 7/1/2	011 With Credita	able Service on 1	/1/2012 Between 8 and 10 Years	201	151
Hi	red Prior to 7/1/2	011 With Credita	able Service on 1	/1/2012 Between 6 and 8 Years	267	104
Hi	red Prior to 7/1/2	011 With Credita	able Service on 1	/1/2012 Between 4 and 6 Years	292	131
Hi	red Prior to 7/1/2	011 With Credita	able Service on 1	/1/2012 Less Than 4 Years	409	176
Hi	red on or After 7/	1/2011			2,418	817
То	otal				4,103	1,723
0%						
				Hired on or After 7/1,	/2011	
0%						
				Hired Prior to 7/1/20		ditable Serv
				on 1/1/2012 Less Tha	n 4 Years	
0%				Hired Prior to 7/1/20	11 With Crea	ditable Serv
				on 1/1/2012 Betweer		
0%				Hired Prior to 7/1/20		
				on 1/1/2012 Betweer	16 and 8 Yea	ars
				Hired Prior to 7/1/20	11 With Crea	ditable Ser
0%				on 1/1/2012 Between		
				•• •• ••		
				Hired Prior to 7/1/20	11 and Veste	ed as of
0%		1		1/1/2012		
	Police		Fire			



## **Summary of Membership Data by Category**

							June 30					
	2022		2021	2020	2019	2018	2017	2016	2015	2014		2013
Active Members												
Number	48,687		48,582	48,479	48,288	48,121	47,886	48,069	47,812	48,307		48,688
Average age (years)	46.3		46.5	46.7	46.7	46.8	46.9	46.9	47.0	47.1		47.0
Average service* (years)	11.4		11.7	11.8	11.9	12.0	12.1	12.1	12.2	12.1		12.0
Average salary	\$ 63,212	\$	61,195	\$ 59,711	\$ 58,503	\$ 57,194	\$ 55,708	\$ 54,118	\$ 53,857	\$ 51,916	\$	51,383
Total payroll supplied, annualized	\$ 3,077,583,995	\$ 3	2,972,968,504	\$ 2,894,708,279	\$ 2,825,006,022	\$ 2,752,235,069	\$ 2,667,611,532	\$ 2,601,403,606	\$ 2,575,031,210	\$ 2,507,898,809	\$ 2	2,501,741,708
Vested Inactive Members												
Number	2,990		2,730	2,661	2,552	2,420	2,281	1,785	1,999	1,297		1,261
Average age (years)	52.3		52.3	52.2	52.1	52.2	51.8	52.1	51.7	52.3		52.3
Non-Vested Inactive Members												
Number	16,717		14,946	13,760	12,530	11,454	10,477	9,528	8,690	8,102		7,273
Service Retirees												
Number	37,151		35,896	34,683	33,573	32,385	31,186	28,403	27,114	26,958		25,785
Average age (years)	71.1		71.4	71.1	70.8	70.0	70.0	70.0	69.0	69.0		69.2
Total annual benefits	\$ 834,215,845	\$	785,424,661	\$ 742,125,367	\$ 708,597,132	\$ 673,359,556	\$ 639,679,378	\$ 608,332,888	\$ 570,043,185	\$ 537,980,513	\$	511,111,807
Average annual benefit	\$ 22,455	\$	21,881	\$ 21,397	\$ 21,106	\$ 20,792	\$ 20,512	\$ 21,418	\$ 21,024	\$ 19,956	\$	19,822
Disability Retirees												
Number	1,660		1,641	1,637	1,627	1,616	1,600	1,600	1,586	1,561		1,558
Average age (years)	64.9		65.2	65.0	64.5	64.2	64.0	63.7	63.4	62.0		62.0
Total annual benefits	\$ 35,830,123	•	34,495,906	33,711,570	33,041,012	32,273,693	31,739,977	31,124,304	30,483,173	30,088,288		29,774,641
Average annual benefit	\$ 21,584	\$	21,021	\$ 20,594	\$ 20,308	\$ 19,971	\$ 19,837	\$ 19,453	\$ 19,220	\$ 19,275	\$	19,111
Beneficiaries												
Number	3,604		3,437	3,292	3,152	3,011	2,908	2,773	2,650	2,535		2,386
Average age (years)	74.8		75.1	74.9	74.5	74.2	73.9	73.9	73.6	73.4		73.4
Total annual benefits	\$ 57,250,840	\$	53,064,561	\$ 49,706,039	\$ 46,998,152	\$ 43,797,864	\$ 41,692,950	\$ 38,818,283	\$ 36,495,210	\$ 34,600,022	\$	32,258,707
Average annual benefit	\$ 15,885	\$	15,439	\$ 15,099	\$ 14,911	\$ 14,546	\$ 14,337	\$ 13,999	\$ 13,772	\$ 13,649	\$	13,520
Total Covered Lives	110,809		107,232	104,512	101,722	99,007	96,338	92,158	89,851	88,760		86,951

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



## **Other Schedules of Interest**

## Schedule of Average Pension Benefit Payment Amounts as of June 30, 2022

Free of Lawrence of Lawrence

Employees																
Service	0 - 4 yrs.* 5 - 9 yrs.			10 - 14 yrs. 15 - 19 yrs.			20 - 24 yrs.		25 - 29 yrs.		) or more yrs.	Total				
Total annual benefit	\$	5,619,592	\$	10,800,953	\$	38,312,886	\$	42,186,829	\$	52,630,395	\$	46,672,949	\$	115,153,655	\$	311,377,259
Average annual benefit	\$	4,087	\$	5,851	\$	7,919	\$	11,864	\$	15,641	\$	21,598	\$	31,899	\$	15,005
Average monthly benefit	\$	341	\$	488	\$	660	\$	989	\$	1,303	\$	1,800	\$	2,658	\$	1,250
Average final compensation	\$	50,124	\$	45,963	\$	44,061	\$	50,335	\$	54 <i>,</i> 509	\$	62,419	\$	70,521	\$	53,965
Number of retired members		1,375 *		1,846		4,838		3,556		3 <i>,</i> 365		2,161		3,610		20,751 **

\* Includes 382 members who did not have service reported.

\*\* Includes 5,565 members who did not have AFC reported.

				Теа	achers					
Service	 0 - 4 yrs.*	5 - 9 yrs.	10 - 14 yrs.		15 - 19 yrs.	20 - 24 yrs.	25 - 29 yrs.	3	0 or more yrs.	Total
Total annual benefit	\$ 2,137,267	\$ 2,774,922	\$ 16,945,845	\$	29,542,888	\$ 57,719,387	\$ 60,629,811	\$	181,416,750	\$ 351,166,870
Average annual benefit	\$ 6,268	\$ 7,043	\$ 9,321	\$	14,661	\$ 19,336	\$ 24,310	\$	35,523	\$ 23,173
Average monthly benefit	\$ 522	\$ 587	\$ 777	\$	1,222	\$ 1,611	\$ 2,026	\$	2,960	\$ 1,931
Average final compensation	\$ 56,047	\$ 58,987	\$ 53,231	\$	62,992	\$ 68,220	\$ 72,016	\$	76,725	\$ 68,654
Number of retired members	341 *	394	1,818		2,015	2,985	2,494		5,107	15,154 **

\* Includes 167 members who did not have service reported.

\*\* Includes 4,453 members who did not have AFC reported.

				Ρ	olice					
Service	 0 - 4 yrs.*	5 - 9 yrs.	10 - 14 yrs.		15 - 19 yrs.	20 - 24 yrs.	25 - 29 yrs.	3(	0 or more yrs.	Total
Total annual benefit	\$ 6,281,126	\$ 3,686,157	\$ 9,724,421	\$	13,512,230	\$ 77,744,866	\$ 47,256,987	\$	23,789,335	\$ 181,995,122
Average annual benefit	\$ 12,389	\$ 17,066	\$ 19,886	\$	30,027	\$ 41,200	\$ 59,819	\$	77,998	\$ 39,189
Average monthly benefit	\$ 1,032	\$ 1,422	\$ 1,657	\$	2,502	\$ 3,433	\$ 4,985	\$	6,500	\$ 3,266
Average final compensation	\$ 57,453	\$ 58,218	\$ 58,181	\$	71,964	\$ 88,234	\$ 101,183	\$	111,153	\$ 85,049
Number of retired members	507 *	216	489		450	1,887	790		305	4,644 **

\* Includes 355 members who did not have service reported.

\*\* Includes 1,819 members who did not have AFC reported.

				F	ire					
Service	 0 - 4 yrs.*	5 - 9 yrs.	10 - 14 yrs.		15 - 19 yrs.	20 - 24 yrs.	25 - 29 yrs.	30	or more yrs.	Total
Total annual benefit	\$ 2,475,730	\$ 631,818	\$ 2,347,758	\$	4,469,069	\$ 25,173,628	\$ 24,568,841	\$	23,090,713	\$ 82,757,557
Average annual benefit	\$ 14,736	\$ 16,627	\$ 21,739	\$	29,794	\$ 37,184	\$ 54,841	\$	83,360	\$ 44,350
Average monthly benefit	\$ 1,228	\$ 1,386	\$ 1,812	\$	2,483	\$ 3,099	\$ 4,570	\$	6,947	\$ 3,696
Average final compensation	\$ 59 <i>,</i> 856	\$ 64,768	\$ 64,721	\$	78,801	\$ 85,127	\$ 96,443	\$	111,314	\$ 91,878
Number of retired members	168 *	38	108		150	677	448		277	1,866 **

\* Includes 147 members who did not have service reported.

\*\* Includes 868 members who did not have AFC reported.



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

#### Employees

								June	30, 2022										
			Ţ	ype of R	etiren	nent**	¢						Option	Selected i	ŧ				
Amount of	Number of								No.										
Monthly Benefit	<b>Retirees</b> *	1	2	3	4	5	6	7	Option	1	2	3	4	5	6	7	8	9	Other&
\$1 - \$500	5,207	4,296	43	2	14	-	592	260	3,216	87	381	145	784	310	11	13	-	-	260
501 - 1,000	6,211	4,686	258	90	13	2	502	660	3,508	77	484	146	946	364	20	6	-	-	660
1,001 - 1,500	3,953	3,049	101	216	17	3	250	317	2,072	58	399	100	715	278	11	3	-	-	317
1,501 - 2,000	2,394	1,949	32	105	5	4	146	153	1,214	25	256	101	451	181	8	5	-	-	153
2,001 - 2,500	1,538	1,312	13	40	-	2	99	72	716	11	196	69	331	135	3	5	-	-	72
2,501 - 3,000	1,018	909	6	11	2	1	57	32	429	17	149	51	235	102	2	1	-	-	32
3,001 - 3,500	682	628	-	10	3	-	26	15	287	6	121	44	143	65	1	-	-	-	15
3,501 - 4,000	492	463	2	1	-	-	18	8	196	5	89	33	111	46	2	2	-	-	8
Over 4,000	786	737	2	2	4	-	28	13	324	8	138	63	148	88	3	1	-	-	13
Totals	22,281	18,029	457	477	58	12	1,718	1,530	11,962	294	2,213	752	3,864	1,569	61	36	-	-	1,530

#### Teachers

								June	30, 2022										
			Ту	/pe of R	letiren	nent**							Option	Selected	#				
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	1,430	1,264	1	-	-	-	104	61	727	19	117	42	352	104	2	6	-	-	61
501 - 1,000	2,436	1,752	31	-	4	-	166	483	1,236	31	165	42	382	90	6	1	-	-	483
1,001 - 1,500	2,414	1,847	77	3	8	-	129	350	1,140	35	213	58	466	139	6	7	-	-	350
1,501 - 2,000	2,386	2,003	32	3	11	-	143	194	1,106	38	195	63	561	214	4	11	-	-	194
2,001 - 2,500	2,326	2,108	16	12	1	1	112	76	1,041	34	235	85	597	241	7	10	-	-	76
2,501 - 3,000	1,831	1,696	8	5	1	-	73	48	775	39	159	62	515	225	4	4	-	-	48
3,001 - 3,500	1,537	1,436	3	2	-	-	70	26	677	17	152	62	438	154	5	6	-	-	26
3,501 - 4,000	992	935	-	-	2	-	38	17	425	14	129	34	252	120	-	1	-	-	17
Over 4,000	1,065	1,028	-	-	1	-	28	8	510	10	144	42	229	122	-	-	-	-	8
Totals	16,417	14,069	168	25	28	1	863	1,263	7,637	237	1,509	490	3,792	1,409	34	46	-	-	1,263

See Page 127 for footnotes.



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

Police

								Ju	ne 30, 202	22									
			Ţ	ype of I	Retirer	nent**	:						Optior	n Selected	#				
Amount of	Number of								No.										
Monthly Benefit	Retirants*	1	2	3	4	5	6	7	Option	1	2	3	4	5	6	7	8	9	Other&
\$1 - \$500	273	197	1	-	-	-	44	31	172	2	10	16	19	23	-	-	-	-	31
501 - 1,000	366	206	9	1	2	-	141	7	278	5	12	9	20	32	1	2	-	-	7
1,001 - 1,500	478	222	24	3	2	1	186	40	331	7	20	21	20	39	-	-	-	-	40
1,501 - 2,000	380	215	19	26	2	-	87	31	230	10	11	20	16	62	-	-	-	-	31
2,001 - 2,500	432	293	12	54	1	1	48	23	218	16	15	55	14	89	-	2	-	-	23
2,501 - 3,000	467	326	6	86	-	-	37	12	201	18	18	74	18	125	1	-	-	-	12
3,001 - 3,500	450	373	1	44	1	3	22	6	174	12	10	100	9	138	-	1	-	-	6
3,501 - 4,000	388	329	3	42	2	-	9	3	138	8	6	80	10	143	-	-	-	-	3
Over 4,000	1,570	1,461	2	78	3	2	17	7	461	21	26	418	22	612	3	-	-	-	7
Totals	4,804	3,622	77	334	13	7	591	160	2,203	99	128	793	148	1,263	5	5	-	-	160

#### Fire

								Ju	ne 30, 202	22									
			Ţ	ype of F	Retirer	nent**	•						Option	Selected	#				
Amount of	Number of								No.										
Monthly Benefit	Retirants*	1	2	3	4	5	6	7	Option	1	2	3	4	5	6	7	8	9	Other&
\$1 - \$500	59	31	-	-	-	2	21	5	47	-	1	-	2	4	-	-	-	-	5
501 - 1,000	96	43	2	-	-	-	49	2	88	-	2	-	1	3	-	-	-	-	2
1,001 - 1,500	165	62	8	2	1	3	78	11	127	4	5	6	7	4	1	-	-	-	11
1,501 - 2,000	167	69	4	7	-	1	80	6	130	4	4	7	8	8	-	-	-	-	6
2,001 - 2,500	157	94	8	11	1	2	35	6	87	7	6	15	7	28	1	-	-	-	6
2,501 - 3,000	171	126	3	22	-	1	17	2	67	7	3	34	9	49	-	-	-	-	2
3,001 - 3,500	178	149	-	19	-	2	5	3	55	7	5	40	3	65	-	-	-	-	3
3,501 - 4,000	157	140	-	13	-	1	2	1	52	3	3	27	3	68	-	-	-	-	1
Over 4,000	753	717	-	23	2	-	10	1	223	14	3	195	7	309	-	1	-	-	1
Totals	1,903	1,431	25	97	4	12	297	37	876	46	32	324	47	538	2	1	-	-	37

See Page 127 for footnotes.



### \*\* Type of Retirement

1-Service & early retirementNo option - Straight life2-Ordinary disability retirementOption 1 - Cash refund3-Accidental disability retirementOption 2 - 100% Joint &4-Ordinary death in active serviceOption 3 - 50% Joint &5-Accidental death in active serviceOption 4 - 100% Pop-Up6-Beneficiaries of deceased members who retired on a service or disability allowanceOption 5 - 50% Pop-Up7-Vested member with future benefitOption 6 - Other % Joint

### # Option Selected

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

\* Including Vested members with a future benefit.

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



# Other Schedules of Interest Historical Membership Data - Retiree

PLOYEES	(agg	regate compensa	tion and	annual allowar	ce dollar	s in thousands)		
IRED MEME	BERSHIP DA	<b>ATA</b>						
	Ado	led to Rolls	Remov	ed from Rolls	Rolls	End of Year	% Increase	Avera
Fiscal		Annual		Annual		Annual	in Annual	Annu
Year	No.**	Allowances*	No.**	Allowances*	No.**	Allowances*	Allowances	Allowar
2022	1,420	\$ 27,960	715	\$ 8,699	20,751	\$ 311,377	6.59%	\$15,
2021	1,240	23,179	628	7,217	20,046	292,116	5.78%	14,
2020	1,208	20,619	598	7,641	19,434	276,154	4.93%	14,
2019	1,271	21,869	640	7,801	18,824	263,176	5.65%	13,
2018	1,133	19,288	513	6,556	18,193	249,109	5.39%	13,
2017 +	1,950	22,224	519	8,977	17,573	236,377	5.94%	13,
2016	1,134	19,332	475	4,636	16,142	223,130	7.05%	13,
2015	1,504	21,357	1335	10,968	15,483	208,434	5.25%	13,
2014	1,094	15,784	492	5,431	15,314	198,045	5.52%	12,
2013	1,110	16,335	539	6,699	14,712	187,692	5.41%	12,
2012	1,111	14,711	457	4,890	14,141	178,056	5.84%	12,
2011	1,113	16,521	428	4,578	13,487	168,235	7.64%	12,
2010	1,070	18,300	460	4,624	12,802	156,292	9.59%	12,
2009	934	14,703	322	3,864	12,192	142,616	8.23%	11,
2008	1,083	17,897	362	4,199	11,580	131,777	11.60%	11,
2007	1,465	22,691	579	5,471	10,859	118,079	17.07%	10,
2005	1,620	19,183	739	5,972	9,973	100,859	18.56%	10,
2003	1,258	13,588	572	4,029	9,092	85,067	18.11%	9,3

TEACHERS (aggregate compensation and annual allowance dollars in thousands)

#### **RETIRED MEMBERSHIP DATA**

	Ado	ded to Rolls	Remov	ed from Rolls	Rolls	End of Year	% Increase	Average
Fiscal		Annual		Annual		Annual	in Annual	Annual
Year	No.**	Allowances*	No.**	Allowances*	No.**	Allowances*	Allowances	Allowances
2022	815	\$ 24,908	346	\$ 7,540	15,154	\$ 351,167	5.20%	\$ 23,173
2021	754	20,941	267	6,110	14,685	333,799	4.65%	22,731
2020	718	19,654	260	6,213	14,198	318,968	4.40%	22,466
2019	774	20,617	257	6,371	13,740	305,527	4.89%	22,236
2018	766	20,526	239	6,075	13,223	291,281	5.22%	22,028
2017+	1,523	21,713	237	8,847	12,696	276,830	4.87%	21,804
2016	760	19,954	209	5,325	11,410	263,964	5.87%	23,134
2015	840	21,563	946	6,891	10,859	249,335	6.25%	22,961
2014	744	17,222	186	4,802	10,965	234,663	5.59%	21,401
2013	698	15,844	247	5,860	10,407	222,243	4.70%	21,355
2012	712	16,420	183	5,150	9,956	212,259	5.61%	21,320
2011	504	10,402	164	3,644	9,427	200,989	3.48%	21,321
2010	849	22,231	269	5,199	9,087	194,231	9.61%	21,375
2009	1,001	26,668	148	3,214	8,507	177,199	15.26%	20,830
2008	891	23,743	165	4,238	7,654	153,745	14.53%	20,087
2007	1,254	29,350	230	4,004	6,928	134,240	23.28%	19,376
2005	1,121	21,842	344	4,591	5,904	108,894	24.34%	18,444
2003	848	15,910	239	2,735	5,127	87,580	26.86%	17,082

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

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

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



# Other Schedules of Interest Historical Membership Data - Retiree

	Ado	ded to Rolls	Remov	ed from Rolls	Rolls	End of Year	% Increase	Average
Fiscal		Annual		Annual		Annual	in Annual	Annual
Year	No.**	Allowances*	No.**	Allowances*	No.**	Allowances*	Allowances	Allowanc
2022	332	\$ 16,013	115	\$ 3,094	4,644	\$ 181,995	7.64%	\$ 39,18
2021	287	13,480	87	2,311	4,427	169,076	7.07%	38,19
2020	209	8,967	64	1,720	4,227	157,907	4.81%	37,35
2019	230	9,739	71	1,595	4,082	150,660	5.71%	36,90
2018	201	7,976	64	1,390	3,923	142,516	4.85%	36,32
2017+	233	7,985	76	1,745	3,786	135,930	4.81%	35,90
2016	239	10,027	67	1,339	3,629	129,690	7.18%	35,7
2015	282	7,303	107	1,675	3,457	121,002	4.88%	35,00
2014	178	6,420	59	1,304	3,282	115,374	4.64%	35,1
2013	247	8,189	65	1,464	3,163	110,258	6.50%	34,8
2012	171	6,977	70	1,008	2,981	103,533	6.12%	34,7
2011	237	10,370	59	1,133	2,880	97,564	10.46%	33,8
2010	189	7,711	52	1,413	2,702	88,327	7.68%	32,6
2009	157	7,235	28	627	2,565	82,029	8.76%	31,9
2008	179	8,504	36	1,376	2,436	75,421	10.44%	30,9
2007	361	14,045	80	1,540	2,293	68,293	22.42%	29,7
2005	308	8,934	83	1,492	2,012	55,788	17.68%	27,7
2003	262	7,903	61	971	1,787	47,406	23.81%	26,5

**FIREFIGHTERS** (aggregate compensation and annual allowance dollars in thousands)

#### RETIRED MEMBERSHIP DATA

	Ado	ded to Rolls	Remov	ed from Rolls	Rolls	End of Year	% Increase	Average
Fiscal		Annual		Annual		Annual	in Annual	Annual
Year	No.**	Allowances*	No.**	Allowances*	No.**	Allowances*	Allowances	Allowances
2022	95	\$ 6,091	45	\$ 1,327	1,866	\$ 82,758	6.11%	\$ 44,350
2021	117	6,882	54	1,402	1,816	77,994	7.56%	42,948
2020	87	4,289	40	1,048	1,753	72,514	4.68%	41,365
2019	80	3,992	47	1,244	1,706	69,273	4.13%	40,606
2018	68	3,266	34	717	1,673	66,525	3.98%	39,764
2017+	88	3,697	44	1,213	1,639	63,976	4.04%	39,033
2016	75	4,177	31	936	1,595	61,492	5.56%	38,553
2015	105	4,546	47	882	1,551	58,251	6.71%	37,557
2014	89	2,774	43	1,139	1,493	54,587	3.09%	36,562
2013	98	3,497	27	715	1,447	52,952	5.55%	36,595
2012	79	3,105	39	495	1,376	50,170	5.49%	36,461
2011	111	5,051	29	696	1,336	47,560	10.08%	35,599
2010	53	2,490	36	766	1,254	43,205	4.16%	34,454
2009	60	2,628	23	644	1,237	41,481	5.02%	33,533
2008	63	3,456	31	1,110	1,200	39,497	6.31%	32,914
2007	131	7,404	24	1,066	1,168	37,151	20.57%	31,807
2005	128	4,393	66	1,290	1,061	30,813	15.83%	29,041
2003	142	4,747	49	1,067	999	26,602	30.26%	26,629

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

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

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



## Other Schedules of Interest Schedule of Average Benefit Payment Amounts as of June 30, 2022

## **Medical Benefits**

State Employees

						Stat	e Er	npioyees							
Service		) - 4 yrs.*		5 - 9 yrs.	1	0 - 14 yrs.	15	- 19 yrs.	2	20 - 24 yrs.	2	25 - 29 yrs.	30	or more yrs.	Total
Average annual benefit	\$	3,767	\$	4,097	\$	3,472	\$	3,688	\$	3,209	\$	3,417	\$	3,509	\$ 3,454
Average monthly benefit	\$	314	\$	341	\$	289	\$	307	\$	267	\$	285	\$	292	\$ 288
Annual Benefits	\$	252,391	\$	200,767	\$	211,780	\$	114,316	\$	1,052,620	\$	847,339	\$	1,849,152	\$ 4,528,365
Number of retired members		67		49		61		31		328		248		527	1,311
* Includes 6 members who did	not	have servic	e rep	orted.											
						Political Sul	odiv	ision Empl	oye	es					
Service	0	) - 4 yrs.*		5 - 9 yrs.	1	0 - 14 yrs.	15	- 19 yrs.	2	20 - 24 yrs.	2	25 - 29 yrs.	30	) or more yrs.	Total
Average annual benefit	\$	3,053	\$	4,041	\$	4,115	\$	3,789	\$	4,034	\$	3,969	\$	4,592	\$ 4,159
Average monthly benefit	\$	254	\$	337	\$	343	\$	316	\$	336	\$	331	\$	383	\$ 347
Annual Benefits	\$	42,735	\$	28,286	\$	32,923	\$	11,368	\$	1,847,793	\$	908,975	\$	1,258,147	\$ 4,130,227
Number of retired members		14		7		8		3		458		229		274	993
* Includes 8 members who did	not	have servic	e rep	orted.											
							Теа	chers							
Service	0	) - 4 yrs.*		5 - 9 yrs.	1	0 - 14 yrs.	15	- 19 yrs.	2	20 - 24 yrs.	2	25 - 29 yrs.	30	or more yrs.	Total
Average annual benefit	\$	2,810	\$	2,842	\$	3,969	\$	0	\$	4,223	\$	4,352	\$	4,816	\$ 4,576
Average monthly benefit	\$	234	\$	237	\$	331	\$	0	\$	352	\$	363	\$	401	\$ 381
Annual Benefits	\$	39,337	\$	11,368	\$	15,875	\$	0	\$	3,589,218	\$	3,555,216	\$	10,415,983	\$ 17,626,997
Number of retired members		14		4		4		0		850		817		2,163	3,852
* Includes 10 members who di	d no	t have servi	ice re	eported.											
						Pol	lice	and Fire							
Service	0	) - 4 yrs.*		5 - 9 yrs.	1	0 - 14 yrs.	15	- 19 yrs.	2	20 - 24 yrs.	2	25 - 29 yrs.	30	) or more yrs.	Total
Average annual benefit	\$	3,810	\$	3,921	\$	4,563	\$	4,588	\$	5,484	\$	5,872	\$	6,083	\$ 5,520
Average monthly benefit	\$	318	\$	327	\$	380	\$	382	\$	457	\$	489	\$	507	\$ 460
Annual Benefits	\$	190,508	\$	250,927	\$	657,037	\$	784,624	\$	7,221,972	\$	4,492,183	\$	2,834,833	\$ 16,432,084
Number of retired members		50		64		144		171		1,317		765		466	2,977
* Includes 16 members who di	d no	t have servi	ice re	eported.											

Number counts include 17 retirees who are eligible for a deferred subsidy.



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

### **State Employees**

June 30, 2022					
Monthly	No. of	1 Person		2 Person	
Benefit	Retirees	Pre-65	Post-65	Pre-65	Post-65
\$1-\$500	1,277	36	1,188	0	53
501-1,000	34	4	20	10	0
1,001-1,500	0	0	0	0	0
1,501-2,000	0	0	0	0	0
Over 2,000	0	0	0	0	0
Total	1,311	40	1,208	10	53

### **Political Subdivision Employees**

June 30, 2022						
Monthly	No. of	1 Person		2 Person		
Benefit	Retirees	Pre-65	Post-65	Pre-65	Post-65	
\$1-\$500	950	15	928	0	7	
501-1,000	43	0	17	1	25	
1,001-1,500	0	0	0	0	0	
1,501-2,000	0	0	0	0	0	
Over 2,000	0	0	0	0	0	
Total	993	15	945	1	32	



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

### Teachers

June 30, 2022						
Monthly	No. of	1-Person		2-Person		
Benefit	Retirees	Pre-65	Post-65	Pre-65	Post-65	
\$1-\$500	3,542	19	3,443	0	80	
501-1,000	309	1	44	0	264	
1,001-1,500	1	0	0	0	1	
1,501-2,000	0	0	0	0	0	
Over 2,000	0	0	0	0	0	
Total	3,852	20	3,487	0	345	

### **Police and Fire**

June 30, 2022						
Monthly	No. of	1-Person		2-Person		
Benefit	Retirees	Pre-65	Post-65	Pre-65	Post-65	
\$1-\$500	2,078	421	1,610	28	19	
501-1,000	887	36	240	590	21	
1,001-1,500	8	0	2	4	2	
1,501-2,000	4	0	0	4	0	
Over 2,000	0	0	0	0	0	
Total	2,977	457	1,852	626	42	

