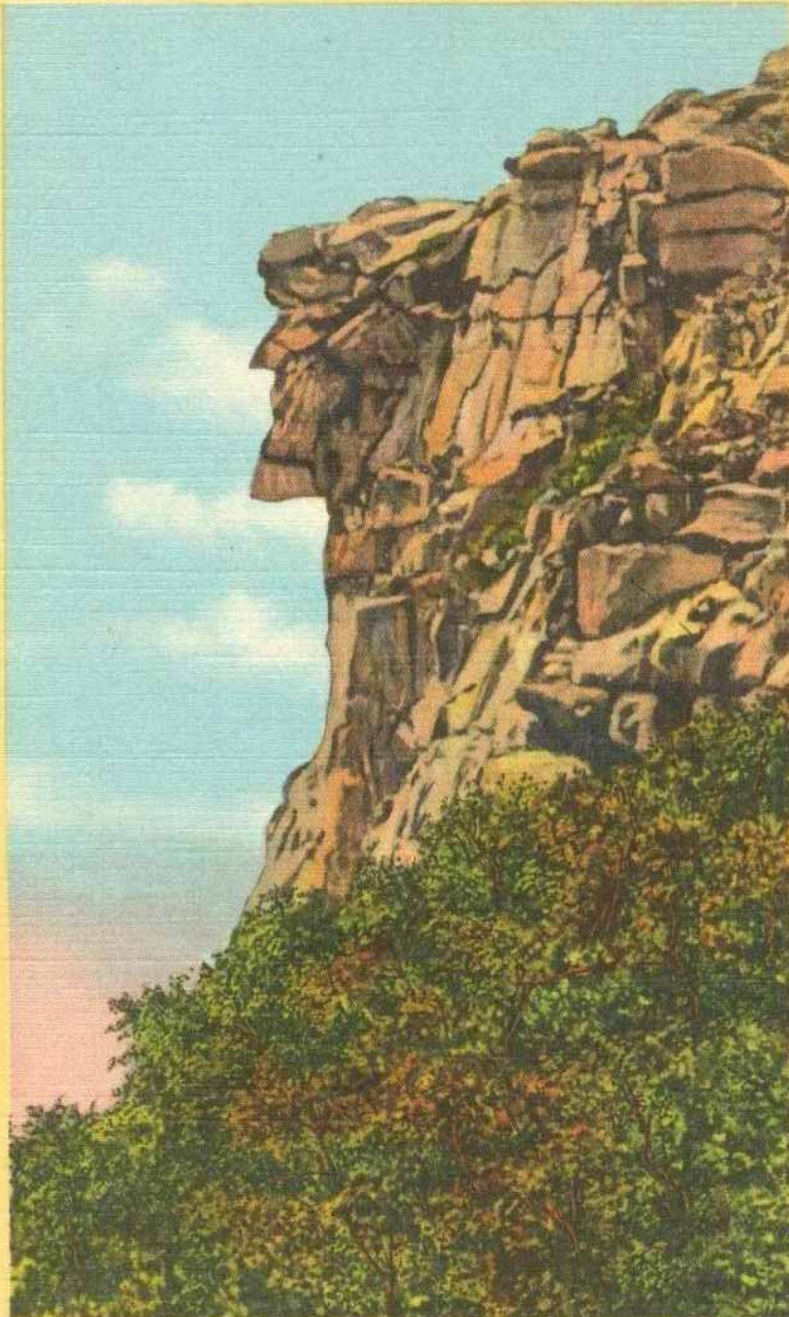


91—THE OLD MAN OF THE MOUNTAIN



FRANCONIA NOTCH, WHITE MOUNTAINS, N. H. 3A-H1558



NHRS

New Hampshire Retirement System
A Component Unit Of The State Of New Hampshire

Comprehensive Annual Financial Report For The
Fiscal Year Ended
June 30, 2018

**COMPREHENSIVE ANNUAL
FINANCIAL REPORT
FOR THE FISCAL YEAR ENDED
JUNE 30, 2018**

A Component Unit of the State of New Hampshire

Prepared by
New Hampshire Retirement System
54 Regional Drive
Concord, New Hampshire 03301-8507
www.nhrs.org

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NEW HAMPSHIRE RETIREMENT SYSTEM

INTRODUCTORY SECTION

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LETTER FROM
THE CHAIR



New Hampshire Retirement System
54 Regional Drive, Concord, NH 03301
Phone: (603) 410-3500 - Fax: (603) 410-3501
Website: www.nhrs.org - Email: info@nhrs.org



Richard A. Gustafson, PhD
Chair
Board of Trustees

November 29, 2018

To the Members and Beneficiaries of the New Hampshire Retirement System:

On behalf of the Board of Trustees of the New Hampshire Retirement System (NHRS, the retirement system), I am pleased to present NHRS' Comprehensive Annual Financial Report (CAFR) for the fiscal year ended June 30, 2018. This report describes the financial condition of both the Pension Plan and the Other Post Employment Benefit (OPEB) Plan. The report also describes various changes that occurred during Fiscal Year 2018.

The Board of Trustees has a fiduciary responsibility to ensure that the interests of members and beneficiaries are properly safeguarded over the long term. This responsibility is embodied in the law and in the New Hampshire Constitution (Part I, Article 36-a), which protects trust fund assets for the exclusive purpose of providing benefits, requires Trustees to set actuarially sound employer contribution rates, and requires employers to annually pay those rates in full.

In the past decade, a number of important legislative and policy changes have put NHRS on a path to financial health. Most recently, a statutorily created Decennial Commission met in the fall of 2017 to review the retirement system's progress over the past 10 years to make recommendations to ensure the long-term viability of the pension plan.

In the course of its work, the 17-member Decennial Commission – on which I served in my capacity as NHRS Board chair – heard from representatives of member, retiree, and employer organizations, NHRS staff, and outside experts on public pension policy and funding. Ultimately, the commission agreed on a dozen recommendations, most of which related to funding and to the post-retirement employment of NHRS retirees by participating employers. Other key recommendations related to supplemental benefit payments for retirees and the age 65 pension recalculation for Group I Employee and Teacher members.

In 2018, the Legislature took up several of these recommendations and enacted the following legislation, which in some cases was amended from the initial commission recommendation during the legislative process:

- House Bill 561 modified the hourly limits for NHRS retirees working part-time for retirement system participating employers and made other changes to the part-time laws.
- House Bill 1756 granted a one-time additional allowance of \$500 in fiscal year 2019 to about 8,000 retired members who met certain criteria – the first additional post-retirement payment since 2012.
- House Bill 1805 increased NHRS trustee terms from 2 years to 3 years and established a committee to study an alternative actuarial method to fund the amortization of the retirement system's unfunded actuarial accrued liability (UAAL).
- House Bill 1823 requires the retirement system to amortize future actuarial gains or losses on or after July 1, 2017, for consecutive closed, fixed periods of no longer than 20 years.

NHRS realized an 8.9% return on investments in the fiscal year ended June 30, 2018, exceeding the retirement system's assumed rate of investment return of 7.25%. It is important to note that these investment returns are for a single year, and need to be considered within the context of the portfolio's performance over time as compared to the assumed rate of return. The three-year, five-year, 10-year, 20-year, and 25-year returns for the periods ended June 30, 2018, were 7.7%, 8.7 %, 7.1 %, 6.4 %, and 8.0 %, respectively. All returns are net of fees.

The relative performance of our investments has been consistently strong. Compared to the members in the InvestorForce Public Defined Benefit Net Universe, which represents 237 public plans totaling more than \$464 billion in assets, NHRS performed better than 90% of its peers over the three- and five-year periods and better than 80% of its peers over the one-, 10-, 20-, and 25-year periods. In addition, NHRS' investment and administrative expenses remain below the average expenses reported in the most recent of survey of public pension plans compiled by the National Conference on Public Employee Retirement Plans.

NHRS pursues a long-term investment strategy designed to meet its funding requirements. The Board sets the assumed rate of investment return; approves an investment policy, including asset allocation; and selects an investment consultant to advise the Independent Investment Committee (IIC). The IIC works closely with the consultant and staff to review and change, as appropriate, strategies, external asset managers, and selection of specific investments.

In addition to the information on investments contained in this report, more detailed information on NHRS-specific investment activities and current economic and market climate is provided in the Comprehensive Annual Investment Report for Fiscal Year 2018, issued separately by the IIC.

At June 30, 2018, the funded ratio of the Pension Plan stood at 63.6% and the OPEB Plan at 5.3%, versus 61.8% and 5.6% in the previous year, respectively. Funding status is measured by comparing the actuarial value of assets to the cost of accrued benefits owed now and in the future.

The OPEB plan provides a post-employment medical subsidy benefit to qualified Group I and Group II members. Because the OPEB plan is closed to new members and, as required by statute, is essentially funded on a pay-as-you-go basis, it does not, for the most part, have substantial assets set aside for future funding and benefits are paid from annual employer contributions.

At the close of the fiscal year, the retirement system's net position held in trust was \$8.87 billion, an increase of approximately \$581.0 million over the prior fiscal year, and an all-time high for the plan. The increase is mainly the result of positive investment performance.

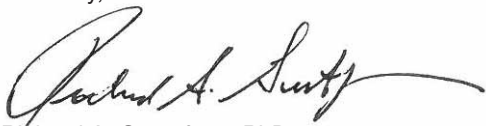
Through a number of recent and ongoing initiatives, NHRS has continued to strengthen its operations, efficiency, and stakeholder outreach. These efforts include expanded employer education efforts, targeted outreach to new and mid-career members, and ongoing cyber-security enhancements to assure the protection of our member records and data. One key initiative we will be undertaking is a multi-year upgrade of our 15-year-old pension administration system, which will create operational efficiencies and provide additional security features.

Since June 30, 2017, the Board welcomed seven new Trustees: Michael Milligan, Tim Lesko, Scott Myers, Sue Hannan, Robert Maloney, Melvin Friese, and Christopher Coates. We wish to thank former trustees Tonya Angwin, Julia Griffin, Stephen Marro, Germano Martins, and David McCrillis for their service on behalf of our members and beneficiaries.

Our mission is straightforward, "To provide secure retirement benefits and superior service." We are pleased with the ongoing progress that has been made toward improving internal operational processes and controls, delivering timely and professional service, and implementing the legislative changes in support of the sustainability and stability of NHRS.

Our primary areas of focus moving forward continues to be improving the funded ratio of the pension trust, generating investment returns at or above the actuarially assumed rate, and constantly looking for ways to improve the efficiency of our processes. The Board and staff are committed to proactively meeting these challenges for the benefit of the retirement system's members and beneficiaries.

Sincerely,



Richard A. Gustafson, PhD
Chair, Board of Trustees

BOARD OF TRUSTEES

BOARD OF TRUSTEES



Richard A. Gustafson, PhD
Chair, Public Member
August 2011 to August 2019



Timothy S. Lesko
Public Member
January 2018 to November 2019



Maureen Kelliher
Public Member
June 2014 to July 2019



Robert E. Maloney
Public Member
July 2018 to July 2021



Donald M. Roy, Jr.
Employer Member
July 2011 to July 2019



Michael R. Milligan
Employer Member
November 2017 to July 2019



Scott M. Myers
Employer Member
January 2018 to September 2019



Melvin A. Friese
Employee Member
July 2018 to July 2021



Sue Hannan
Teacher Member
July 2018 to July 2021



George A. Walker
Firefighter Member
July 2012 to July 2021



William Hart
Police Officer Member
August 2016 to July 2018



William Dwyer
State Treasurer
March 2014 ex officio



Christopher C. Coates
Employer Member
September 2018 to July 2019

INDEPENDENT MEMBERS



Keith Quinton
April 2017–Present



Christine Clinton
January 2018–Present



Daniel LaPlante
August 2018–Present



David A. Jensen
January 2009–December 2010
December 2011–June 2018



Patrick O'Donnell
May 2009–December 2010
July 2011–December 2017

TRUSTEE MEMBERS



Maureen Kelliher, Chair
June 2014–Present



Timothy S. Lesko
January 2018–Present

**CERTIFICATE OF
ACHIEVEMENT**



Government Finance Officers Association

**Certificate of
Achievement
for Excellence
in Financial
Reporting**

Presented to

New Hampshire Retirement System

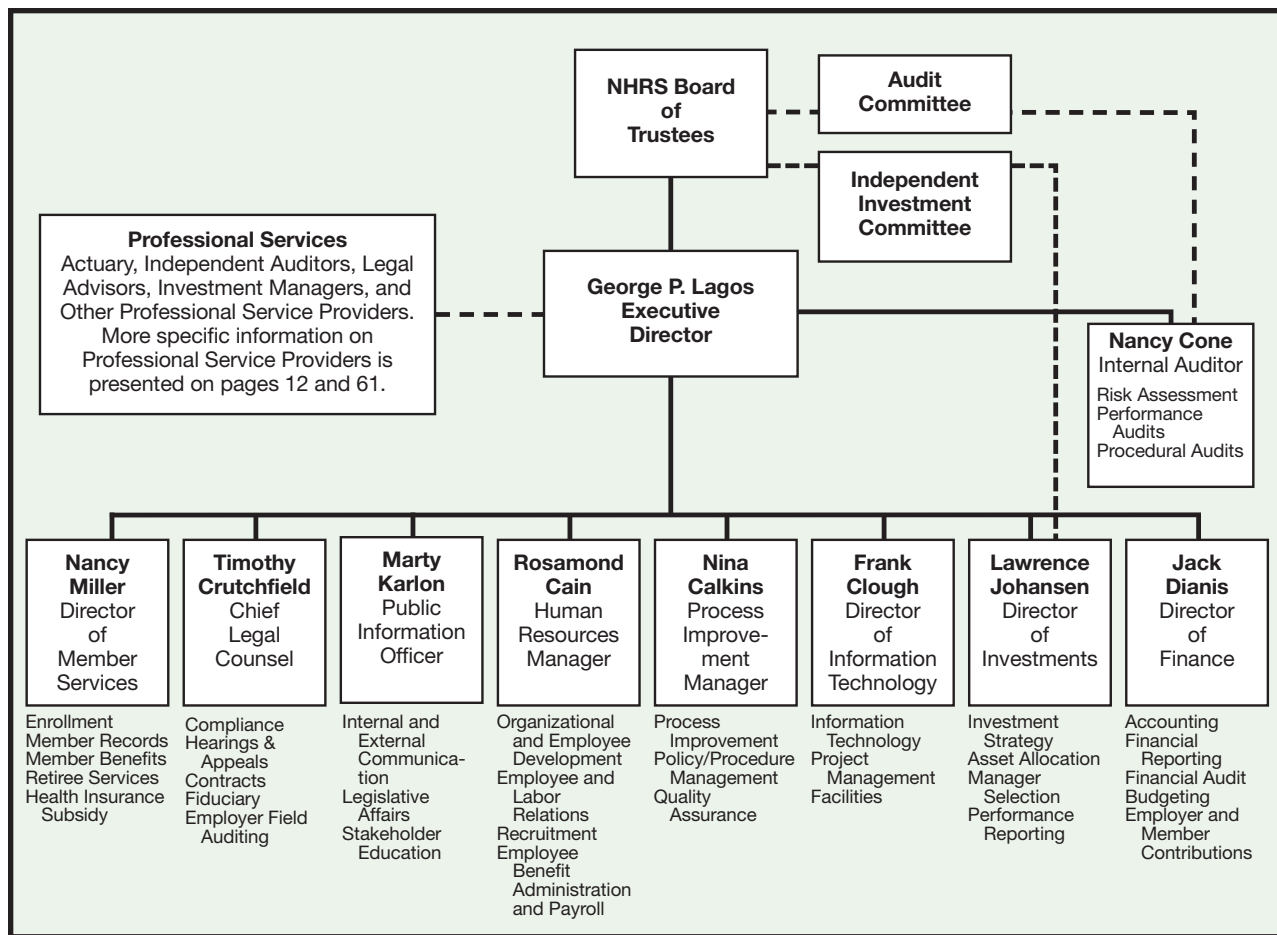
For its Comprehensive Annual
Financial Report
for the Fiscal Year Ended

June 30, 2017

Christopher P. Morrill

Executive Director/CEO

ADMINISTRATIVE ORGANIZATION



NHRS MANAGEMENT TEAM



Seated left to right: Nancy Miller, Tamre McCrea, George P. Lagos, Marty Karlon, Nancy Cone. Standing left to right: Nina Calkins, Jack Dianis, Timothy Crutchfield, Frank Clough, Cecile Merrill, Rosamond Cain, Mark Cavanaugh, Tracey Horner, Heather Fritzky, and Margaret Astles. Absent when photo was taken: Lawrence A. Johansen and Cynthia Peterson.

PROFESSIONAL MANAGERS, ADVISORS AND SERVICE PROVIDERS

DOMESTIC EQUITY MANAGERS

AB
Blackrock Institutional Trust
Company, N.A.
Boston Trust & Investment
Management Company
LSV Asset Management
Segall, Bryant and Hamill
Thompson, Siegel & Walmsley LLC
Wellington Management Company,
LLP

NON-U.S. EQUITY MANAGERS

Aberdeen Asset Management Inc.
Artisan Partners
Causeway Capital Management
Fisher Investments
LSV Asset Management
Neuberger Berman
Segall, Bryant and Hamill
Walter Scott & Partners Limited
Wellington Trust Company, N.A.

FIXED INCOME MANAGERS

Brandywine Global Investment
Management, LLC
DoubleLine Capital
GAM
Income Research &
Management
Loomis Sayles &
Company, L.P.
Manulife Asset Management

PRIVATE DEBT & EQUITY MANAGERS

Aberdeen Standard Investments
Actis
Alcentra
Apollo Global Management
Avenue Capital Group
BlackRock Private Equity Partners
BlueBay Asset Management
Carlyle Group
CarVal Investors
CCMP Capital
Comvest Partners
Coller Capital
Crescent Capital Group
Edgewater Growth Capital Partners
Gramercy
HarbourVest Partners
Industry Ventures
Ironwood Capital
Kayne Anderson Capital Advisors
Lexington Capital Partners
MatlinPatterson Global Advisers
Monroe Capital
NGP Energy Capital Management
Pine Brook Capital Partners
Riverstone Holdings
RFE Investment Partners
Siguler Guff & Co.
SL Capital Partners
Tennenbaum Capital Partners
Thoma Bravo
Top Tier Capital Partners
VSS
Warburg Pincus

REAL ESTATE MANAGERS

The Townsend Group
an Aon company

TRANSITION MANAGERS

Abel/Noser, LLC
BlackRock Institutional Trust
Company, N.A.
Pavillion Global Markets
Russell Implementation Services
State Street Bank and Trust
Company

INDEPENDENT AUDITORS

Plante Moran

INVESTMENT ADVISOR

NEPC, LLC

ACTUARIAL CONSULTANT

Gabriel, Roeder, Smith & Company

LEGAL ADVISORS

Foster Pepper PLLC
Getman, Stacey, Schulthess &
Steere, P.A.
Groom Law Group
Peter T. Foley, Esquire
Suloway & Hollis PLLC
McLane Middleton, P.A.

CUSTODIANS

Citizens Bank-NH
(In-state Custodian)
BNY Mellon
(Master Custodian)

CORPORATE GOVERNANCE SERVICES

Institutional Shareholder Services,
Inc.

TRADING COST ADVISOR

Abel/Noser, LLC



New Hampshire Retirement System
54 Regional Drive, Concord, NH 03301
Phone: (603) 410-3500 - Fax: (603) 410-3501
Website: www.nhrs.org - Email: info@nhrs.org



George P. Lagos
Executive Director

November 29, 2018

Dear Chair and Members of the Board of Trustees:

We are pleased to submit the Comprehensive Annual Financial Report (CAFR) of the New Hampshire Retirement System (NHRS) for the fiscal year ended June 30, 2018. This comprehensive report is designed to comply with the provisions of the Revised Statutes Annotated (RSA) 100-A:15, VI of the State of New Hampshire.

The management at NHRS is responsible for the complete and fair presentation of financial information and the accompanying disclosures in this report. This report fairly presents the combined assessment of the investment results and the financial condition of the Pension Plan and the Post-Employment Medical Plan.

The Pension Plan was established in 1967 to consolidate and replace four separate pension plan systems: the New Hampshire Teachers' Retirement System, the New Hampshire State Employees Retirement System, the New Hampshire Policemen's Retirement System, and the New Hampshire Permanent Firemen's Retirement System. The Pension Plan provides

service retirement, disability retirement, early and vested retirement, and survivor benefits for all full-time state employees, public school teachers and administrators, permanent police officers, and permanent firefighters. Full-time employees of political subdivisions (such as county, municipal or school district employees) are also eligible to become members if the local governing body elects participation. At the close of the fiscal year, there were 48,121 active members and 37,012 retirees or beneficiaries.

The Pension Plan is a qualified governmental plan within the meaning of section 414(d) of the United States Internal Revenue Code and has a separately appointed governing body. Based on financial reporting guidelines, the Pension Plan is deemed to be a single pension plan. In addition, NHRS administers a post-employment medical plan (OPEB Plan) for qualified Group I and Group II members.

BUDGET CONTROLS AND NHRS ADMINISTRATION

The administrative budget for fiscal year 2018 was proposed by management, approved by the Board of Trustees, submitted under the budget preparation guidelines of the State of New Hampshire, and passed into law by the New Hampshire Legislature. For financial reporting purposes, NHRS is considered a component unit of the State of New Hampshire.

NHRS is administered by a 13-member Board of Trustees, which includes the State Treasurer as an ex officio member, one employee member, one teacher member, one firefighter member, one police officer member, four public nonmembers, and four employer representatives. The Board of Trustees sets the investment policy, formulates administrative policies, and authorizes benefit payments to members and their beneficiaries. The NHRS Independent Investment Committee is responsible for investing in accordance with policies established by the Board; selecting investment managers, agents, and custodial banks; reviewing performance; and making recommendations to the Board regarding investment consultants, asset allocation, and other investment policy matters. Administrative functions are directed by the Executive Director and are carried out by the administrative staff.

ACCOUNTING SYSTEM AND INTERNAL CONTROL

The CAFR has been prepared in conformity with U.S. generally accepted accounting principles (GAAP). The financial statements are prepared on the accrual basis of accounting. Contributions are recognized as revenue in the period when they become due pursuant to statutory requirements. Investment income is recognized as it is earned. Benefits, refunds, and investment expenses are recognized when they become due and payable. Net appreciation (depreciation) in the fair value of investments is recorded as an increase (decrease) to investment income based on the valuation of investments as of the date of the financial statements. Trade commissions and related transaction costs are netted against the fair value of investments. Capital assets are recognized in the financial statements in accordance with NHRS's established capital asset policy.

The management at NHRS is responsible for maintaining a system of internal controls which is designed to provide reasonable assurance that the assets are adequately safeguarded and the financial reports and financial statements are fairly stated. There is not an expectation from management that the internal controls will prevent or detect all errors and fraud.

A control system, no matter how well designed and operated, can provide reasonable, not absolute, assurance that the objectives of the control system are met. The concept of reasonable assurance recognizes that: (1) The cost of a control should not exceed the benefits likely to be derived; and (2) The evaluation of costs and benefits requires estimates and judgments by management. Management believes its internal control structure meets these objectives.

FINANCIAL PERFORMANCE

For the fiscal year ended June 30, 2018, plan net position increased \$580.9 million to \$8,874.2 billion compared to a \$832.3 million net position increase for the prior year. Positive investment returns for the five years ended June 30, 2018, contributed to a modest improvement in the retirement system's funded ratio. While the economy has made positive progress since the great recession of 2008–09, the retirement system still has significant financial challenges ahead of it. A detailed discussion of investment performance, the sources of additions and deductions, and results of operations is covered in the Management's Discussion and Analysis beginning on page 21.

FUNDING STATUS

In order to ensure that current and future retirement benefits are safeguarded and available to members at retirement, NHRS evaluates the actuarial value of the Plans' assets compared to the actuarial value of the Plans' liabilities as an indication of the extent to which the Plans are funded each year. This measure is called the plan funded ratio. Significant legislation was enacted in the 2008 and 2011 legislative sessions aimed at improving the funded ratios of the Plans.

The Pension Plan funded ratio at June 30, 2018, based on the June 30, 2018 interim actuarial valuation was 63.6%. The comparable funded ratio at June 30, 2017, based on the June 30, 2017 actuarial valuation was 61.8%. The funded ratio of the OPEB Plan at June 30, 2018, based on the June 30, 2018 interim actuarial valuation, was 5.3%. The comparable funded ratio at June 30, 2017, based on the June 30, 2017 actuarial valuation was 5.6%. The ratio of Plan net position to the Plan liability under GAAP is separately determined for both the Pension and OPEB plan and is discussed in the financial statements. A comprehensive analysis of funding progress for the Plans is provided in the Required Supplementary Information beginning on page 48.

NHRS adopted an actuarial funding policy in FY 2014 which defines the actuarial method and assumptions used to determine the employer contribution rates necessary to fund the plan. The policy was amended in September of 2018 to reflect statutory adoption of layered amortization for future asset gains or losses. For more details on NHRS' actuarial funding policy, go to www.nhrs.org/about-nhrs/policies.

NET PENSION LIABILITY

The total pension liability is the accrued liability for benefits owed now and in the future based on the Entry Age Normal funding method. The fiduciary net position is the fair value of plan net assets. The net pension liability is the total pension liability, less the amount of the pension plan's fiduciary net position. These disclosures are accounting measurements, not actuarial measurements of the funded status of the plan, and are not used to develop employer contribution rates.

INVESTMENTS

RSA 100-A:15 grants the New Hampshire Retirement System Board of Trustees the authority to adopt the investment policy for NHRS. Effective January 1, 2009, an Independent Investment Committee (IIC) was established by statute granting it authority to invest and reinvest NHRS funds in accordance with the investment policy adopted by the Board of Trustees. Prior to January 1, 2009, the Board of Trustees had the authority to invest and reinvest NHRS funds.

The Independent Investment Committee consists of not more than five members, three of whom are not members of the Board of Trustees and up to two of whom are members of the Board of Trustees appointed by the chairperson of the Board of Trustees. The Trustees and Independent Investment Committee members are fiduciaries and discharge their duties solely in the interest of the Plans' participants and beneficiaries. In the management of the Plans' assets, the Board of Trustees and the Independent Investment Committee members must exercise the care, skill, and caution under the circumstances then prevailing that a prudent person acting in a like capacity would use in the conduct of an activity of like character and purpose.

The annualized total fund investment returns for the one-year, three-year, five-year, ten-year, and twenty-year periods ended June 30, 2018, were 8.9%, 7.7%, 8.7%, 7.1%, and 6.4%, respectively. A discussion about comparative annualized returns and related benchmark indices for fiscal years 2018 and 2017 is presented in the Management's Discussion and Analysis beginning on page 21.

For the five, six, seven and eight years ending June 30, 2018, a period during which the Independent Investment Committee made the investment decisions, total fund performance was in the top decile.

The outperformance of 140 bps relative to the median of the InvestorForce Public Defined Benefit Net Universe for the nine years ending June 30, 2018 represents approximately \$536 million in additional investment income for the pension trust.

MAJOR INITIATIVES

NHRS faces many issues common to other public employee retirement plans. As part of its proactive response to these challenges, the retirement system strives to create a culture of constant improvement. Some of the significant accomplishments during fiscal year 2018 were:

- Achieved investment performance for FY 2018 of 8.9% outperforming the Total Fund benchmark return of 7.8% and the retirement system's assumed rate of investment return of 7.25%. The three-year, five-year, 10-year, 20-year, and 25-year returns for the periods ended June 30, 2018, were 7.7%, 8.7%, 7.1%, 6.4%, and 8.0%, respectively. Compared to the members in the InvestorForce Public Defined Benefit Net Universe, which consists of 237 public pension plans totaling \$464 billion in assets, NHRS performed better than 90% of its peers over the three- and five-year periods and better than 80% of its peers over the one-, ten-, 20-, and 25-year periods. All returns are net of fees.
- Issued an RFP for external audit services that resulted in contracting with a new audit firm beginning in FY 2018.
- Made upgrades to My Account, the retirement system's secure online member portal, including enhanced account setup and password security.
- Expanded education and outreach to members and employers through live presentations, written materials, and online content.
- Successfully implemented requirements of GASB 75 (Accounting and Financial Reporting for Postemployment Benefits other than Pensions).
- Instituted ongoing, office-wide onsite security awareness training program.
- Earned a Certificate of Achievement for Excellence in Financial Reporting for both the Comprehensive Annual Financial Report (CAFR) and Summary Annual Financial Report.
- Legislation enacted in 2018 creates 20-year layered amortization for actuarial gains or losses accrued on or after July 1, 2017. The existing unfunded liability will continue to be amortized through 2039.
- The Board of Trustees unanimously voted in April to adopt the recommendations of the Audit and Governance Committees to approve staff's recommendation to move forward with upgrading PensionGold, the retirement system's core pension application system, from Version 2 to Version 3, subject to successful contract negotiations.
- Implementation of an Insurance Authorization Module which allows employers to submit retiree insurance enrollments and deduction changes automatically via online employer portal.
- Implementation of employer reporting system changes to administer new legislation on working after retirement as of January 1, 2019.

INDEPENDENT AUDIT

RSA 100-A:15 VI. (a) requires the Audit Committee of the Board of Trustees to engage the services of a qualified independent auditor to perform an annual audit each fiscal year. For fiscal year 2018, the Audit Committee designated Plante Moran to conduct the annual audit. The independent auditors' report, audited financial statements, required supplementary information, and supporting schedules are included in the Financial Section of this report.

ACTUARIAL REVIEW AND VALUATION

An actuarial review, commonly called an experience study, of the mortality, service, withdrawals, and compensation experience of members is required by statute at least once during each five-year period. The last actuarial review was performed during fiscal year 2016 by NHRS' current actuary, Gabriel, Roeder, Smith and Company and was based on the information available as of June 30, 2015. An actuarial valuation of the assets and liabilities is required by statute at least once during each two-year period. The June 30, 2017 actuarial valuation was used to determine employer contribution rates for fiscal years 2020 and 2021. An interim valuation as of June 30, 2018 has been completed for the purpose of determining the actuarial information included in this report and to inform policy-making bodies during the coming year. The actuarial certification and supporting statistics are included in the Actuarial and Statistical Sections of this report. An actuarial audit of GRS' work is expected to take place in 2019.

CERTIFICATE OF ACHIEVEMENT FOR EXCELLENCE IN FINANCIAL REPORTING

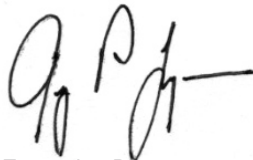
The NHRS Comprehensive Annual Financial Report for the fiscal year ended June 30, 2017, was awarded the Certificate of Achievement for Excellence in Financial Reporting by the Government Finance Officers Association of the United States and Canada (GFOA). The Certificate of Achievement is the highest form of recognition in the area of state and local governmental accounting and financial reporting, and attaining it represents a significant accomplishment by a government and its management. We are gratified that NHRS has received this award for 27 of the past 28 years. A copy of the fiscal year 2017 award is presented on page 10.

ACKNOWLEDGMENTS

The compilation of this report reflects the combined efforts of the NHRS administrative staff under the direction of the Board of Trustees. It is intended to provide extensive and reliable information as a basis for making management decisions, determining compliance with legal provisions, and for determining responsible stewardship for the investment and accounting for assets of plan participants. We would like to take this opportunity to express our gratitude to the Board of Trustees for its guidance and support and to the administrative staff for their dedication and commitment to the mission, vision and values of the New Hampshire Retirement System. We would also like to note our appreciation for the professional and diligent work of the Independent Investment Committee whose efforts have consistently generated superior returns in accordance with the Board's investment policy.

Respectfully submitted,

George P. Lagos



Executive Director

Jack Dianis



Interim Director of Finance

FINANCIAL section



Main Street, Durham, N. H.

NHRS paid out
\$741.8 million in
pension benefits in
Fiscal Year 2018.
The average annual
pension benefit is
just over \$20,000.

[CLICK HERE TO RETURN TO TABLE OF CONTENTS](#)

INDEPENDENT AUDITORS' REPORT



Plante & Moran, PLLC
27400 Northwestern Highway
P.O. Box 307
Southfield, MI 48037-0307
Tel: 248.352.2500
Fax: 248.352.0018
plantemoran.com

Independent Auditor's Report

To the Board of Trustees
New Hampshire Retirement System

REPORT ON THE FINANCIAL STATEMENTS

We have audited the accompanying financial statements of the New Hampshire Retirement System (the "System"), a component unit of the State of New Hampshire, as of and for the year ended June 30, 2018 and the related notes to the financial statements, which collectively comprise the New Hampshire Retirement System's basic financial statements, as listed in the table of contents.

MANAGEMENT'S RESPONSIBILITY FOR THE FINANCIAL STATEMENTS

Management is responsible for the preparation and fair presentation of these financial statements in accordance with accounting principles generally accepted in the United States of America; this includes the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of financial statements that are free from material misstatement, whether due to fraud or error.

AUDITOR'S RESPONSIBILITY

Our responsibility is to express an opinion on these financial statements based on our audit. We conducted our audit in accordance with auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in Government Auditing Standards, issued by the Comptroller General of the United States. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the entity's preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. Accordingly, we express no such opinion. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluating the overall presentation of the financial statements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

OPINION

In our opinion, the basic financial statements referred to above present fairly, in all material respects, the fiduciary net position of the New Hampshire Retirement System as of June 30, 2018 and the changes in its fiduciary net position for the year then ended in accordance with accounting principles generally accepted in the United States of America.

OTHER MATTERS

Required Supplementary Information

Accounting principles generally accepted in the United States of America require that the management's discussion and analysis and the other required supplementary information, as listed in the table of contents, be presented to supplement the basic financial statements. Such information, although not a part of the basic financial statements, is required by the Governmental Accounting Standards Board, which considers it to be an essential part of financial reporting for placing the basic financial statements in an appropriate operational, economic, or historical context. We have applied certain limited procedures to the required supplementary information in accordance with auditing standards generally accepted in the United States of America, which consisted of inquiries of management about the methods of preparing the information and comparing the information for consistency with management's responses to our inquiries, the basic financial statements, and other knowledge we obtained during our audit of the basic financial statements. We do not express an opinion or provide any assurance on the information because the limited procedures do not provide us with sufficient evidence to express an opinion or provide any assurance.

Other Supplementary Information

Our audit was conducted for the purpose of forming an opinion on the financial statements that collectively comprise the New Hampshire Retirement System's basic financial statements. The supporting schedules, as identified in the table of contents, and introductory, investment, actuarial, and statistical sections are presented for the purpose of additional analysis and are not a required part of the basic financial statements.

The supporting schedules, as identified in the table of contents, are the responsibility of management and were derived from and relate directly to the underlying accounting and other records used to prepare the basic financial statements. Such information has been subjected to the auditing procedures applied in the audit of the basic financial statements and certain additional procedures, including comparing and reconciling such information directly to the underlying accounting and other records used to prepare the basic financial statements or to the basic financial statements themselves, and other additional procedures in accordance with auditing standards generally accepted in the United States of America. In our opinion, the supporting schedules, as identified in the table of contents, are fairly stated in all material respects in relation to the basic financial statements as a whole.

The New Hampshire Retirement System's basic financial statements for the year ended June 30, 2017 (not presented herein) were audited by other auditors, whose report thereon dated December 12, 2017 expressed an unmodified opinion. The report of the other auditors dated December 12, 2017 stated that the supporting schedules for the year ended June 30, 2017 were subjected to the auditing procedures applied in the audit of the 2017 financial statements and certain additional auditing procedures, including comparing and reconciling such information directly to the underlying accounting and other records used to prepare the financial statements or to the basic financial statements themselves, and other additional procedures in accordance with auditing standards generally accepted in the United States of America and, in their opinion, were fairly stated in all material respects in relation to the basic financial statements as a whole for the year ended June 30, 2017.

The introductory, investment, actuarial, and statistical sections have not been subjected to the auditing procedures applied in the audit of the basic financial statements and, accordingly, we do not express an opinion or provide any assurance on them.

REPORT ON SUMMARIZED COMPARATIVE FINANCIAL INFORMATION

Other auditors have previously audited the New Hampshire Retirement System's June 30, 2017 financial statements and expressed an unmodified audit opinion on those basic financial statements in their report dated December 12, 2017.

OTHER REPORTING REQUIRED BY GOVERNMENT AUDITING STANDARDS

In accordance with *Government Auditing Standards*, we have also issued our report dated November 29, 2018 on our consideration of the New Hampshire Retirement System's internal control over financial reporting and on our tests of its compliance with certain provisions of laws, regulations, contracts, grant agreements, and other matters. The purpose of that report is to describe the scope of our testing of internal control over financial reporting and compliance and the results of that testing, and not to provide an opinion on the internal control over financial reporting or on compliance. That report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering the New Hampshire Retirement System's internal control over financial reporting 18.

Plante & Moran, PLLC

November 29, 2018

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MANAGEMENT'S DISCUSSION AND ANALYSIS – REQUIRED SUPPLEMENTARY INFORMATION (UNAUDITED)

This section presents management's discussion and analysis of the New Hampshire Retirement System's (NHRS) financial performance during the fiscal year ended June 30, 2018 and is presented as a narrative overview and analysis in conjunction with the Letter of Transmittal included in the Introductory Section of the System's Comprehensive Annual Financial Report. The report presents the combined assessment of the financial performance of the Pension Plan and the OPEB Plan.

The discussion and analysis is intended to serve as an introduction to the basic financial statements. These statements include the Combining Statements of Fiduciary Net Position and Changes in Fiduciary Net Position, and the related Notes to the Financial Statements for the fiscal year ended June 30, 2018 with summarized comparative information for fiscal year 2017. In addition, Required Supplementary Information is provided for the Pension and OPEB plan. The excess of assets over liabilities is reported as "Net Position Restricted for Pension and Other Post Employment Benefits (OPEB)."

FINANCIAL HIGHLIGHTS

Net position increased by \$580.9 million (7.0%) from the prior year's net position reflecting strong performance results across all asset classes.

Net investment income during fiscal year 2018 was \$720.2 million, a \$262.1 million (26.7%) decrease over the prior fiscal year. The net investment income for fiscal year 2018 reflects a time-weighted return for the total fund during the year of 8.9% compared to a time-weighted investment return of 13.5% for the fiscal year ended June 30, 2017.

The total contributions received during the fiscal year were \$684.4 million. For fiscal year 2017, total contributions received were \$638.9 million.

Employer contributions for fiscal year 2018 increased 9.6%, to \$466.8 million, compared with employer contributions in fiscal year 2017 of \$425.8 million. The increase in employer contributions in fiscal year 2018 was primarily due to growth in covered payroll.

Member contributions were \$217.6 million in fiscal year 2018, an increase of 2.1% over fiscal year 2017 member contributions of \$213.1 million. The increase in member contributions is primarily due to an increase in pensionable wages for contributing members. Overall member normal contributions increased by \$4.7 million or 2.2% over the prior fiscal year. Voluntary member contributions decreased by \$0.1 million or -3.3% over fiscal year 2017.

Benefits paid during fiscal year 2018 were \$791.0 million, an increase of 4.5% over benefits paid in fiscal year 2017 of \$756.9 million. The increase in benefits paid in fiscal year 2018 is primarily due to an increase in the number of retirees and increased average benefit levels for those new retirees.

FINANCIAL ANALYSIS

The following schedules report the Condensed Comparative Net Position Information and the Condensed Comparative Changes in Net Position Information for the NHRS for the fiscal years ended June 30, 2018 and June 30, 2017.

Condensed Comparative Plan Net Position – Combined Plans

(Dollar Values Expressed in Millions)

	As of June 30, 2018	As of June 30, 2017	Amount Increase (Decrease)	Percentage Increase (Decrease)
Cash	\$ 291.3	\$ 194.5	\$ 96.8	49.8%
Receivables	112.1	107.3	4.8	4.5%
Investments	8,508.7	8,020.0	488.7	6.1%
Other Assets	0.2	0.2	—	0.0%
Total Assets	\$ 8,912.3	\$ 8,322.0	\$ 590.3	7.1%
Other Liabilities	38.1	28.7	9.4	32.8%
Total Liabilities	\$ 38.1	\$ 28.7	\$ 9.4	32.8%
Net Position Restricted for Pension and Other Post Employment Benefits	\$ 8,874.2	\$ 8,293.3	\$ 580.9	7.0%

Total assets increased by \$590.3 million (7.1%) in fiscal year 2018. Cash on hand at fiscal year end was \$96.8 million (49.8%) higher than at fiscal year end 2017 reflecting lower draw downs of liquidity reserves necessary to meet operating obligations. Receivables increased by \$4.8 million (4.5%) over the prior fiscal year primarily due to an increase in the pending sales of securities and an increase in the contributions due from employers at fiscal year end. Investments increased by \$488.7 million (6.1%) in fiscal year 2018. The increase in investments is attributable to relatively strong capital market returns, especially US equities. Other assets remain unchanged at \$0.2 million for fiscal year 2018.

Total liabilities increased by \$9.4 million (32.8%) at the end of fiscal year 2018 primarily due to an increase in pending purchases of securities at fiscal year end.

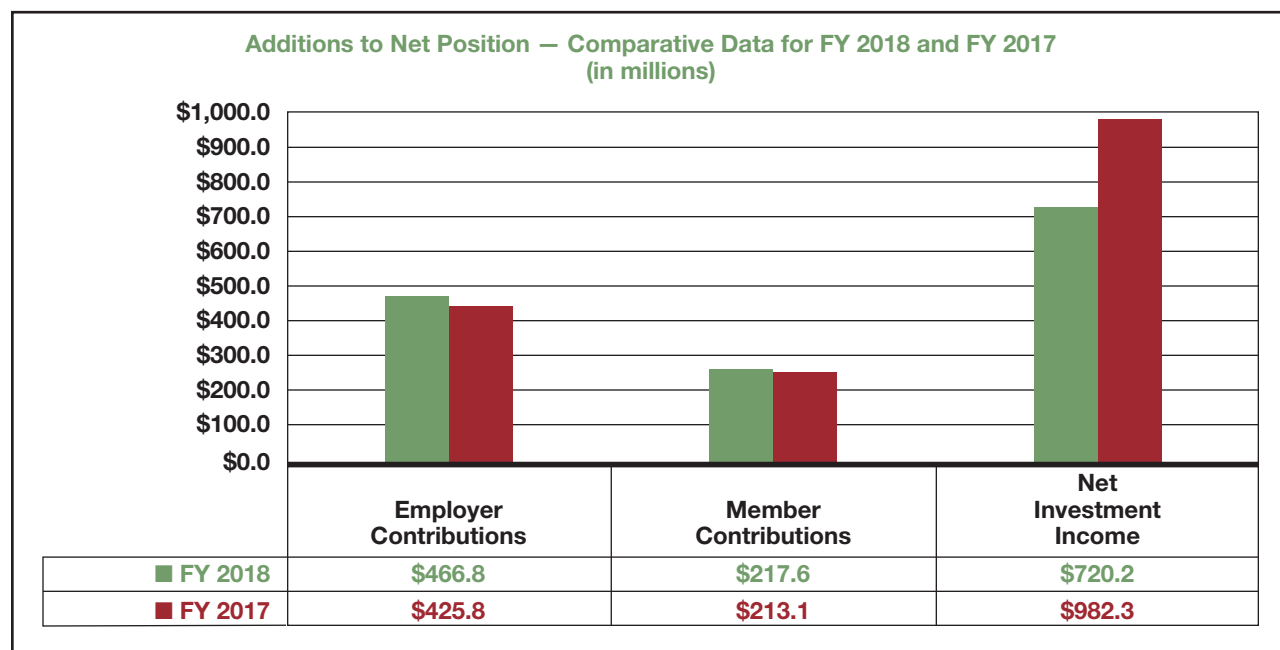
Condensed Comparative Changes in Plan Net Position – Combined Plans
(Dollar Values Expressed in Millions)

	Year Ended June 30, 2018	Year Ended June 30, 2017	Amount Increase (Decrease)	Percentage Increase (Decrease)
ADDITIONS:				
Employer Contributions	\$ 466.8	\$ 425.8	\$ 41.0	9.6%
Member Contributions	217.6	213.1	4.5	2.1%
Net Investment Income	720.2	982.3	(262.1)	(26.7%)
Total Additions to Plan Net Position	\$ 1,404.6	\$ 1,621.2	\$ (216.6)	(13.4%)
DEDUCTIONS:				
Benefits Paid	\$ 791.0	\$ 756.9	\$ 34.1	4.5%
Refunds of Contributions	24.0	23.4	0.6	2.6%
Administrative Expense	7.8	7.7	0.1	1.3%
Other Deductions	0.9	0.9	—	0.0%
Total Deductions from Plan Net Position	\$ 823.7	\$ 788.9	\$ 34.8	4.4%
Total Changes in Plan Net Position	\$ 580.9	\$ 832.3	\$ (251.4)	(30.2%)

ADDITIONS TO NET POSITION

For fiscal year 2018, the combined total of employer and member contributions increased by \$45.5 million or 7.1%. Employer contributions increased from \$425.8 million in fiscal year 2017 to \$466.8 million or 9.6% in fiscal year 2018. The increase in employer contributions is primarily due to higher earnable compensation rates. Member contributions for fiscal year 2018 were \$217.6 million, an increase of \$4.5 million or 2.1% from fiscal year 2017. Member normal contributions increased \$4.6 million or 2.2% in fiscal year 2018 and voluntary member contributions decreased by \$0.1 million or 3.3%.

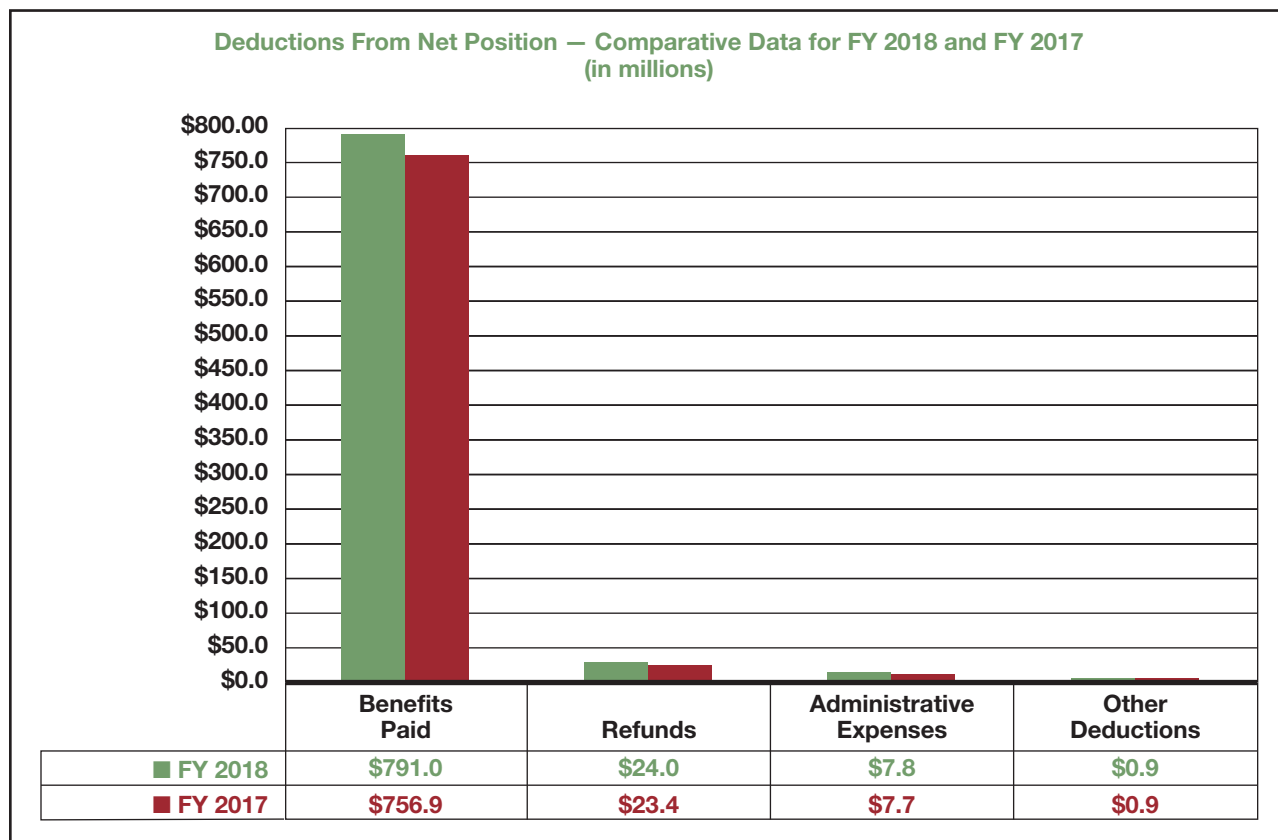
Over the long term, the Plan’s investment portfolio has been a major source for additions to plan net position. There was a net investment income gain in fiscal year 2018 of \$720.2 million compared with a net investment income gain in fiscal year 2017 of \$982.3 million. The net change from year-to-year was (\$262.1) million or (26.7%), a decrease from fiscal year 2017. The decrease in investment income was driven by moderating global capital markets, particularly outside of the U.S.



DEDUCTIONS FROM NET POSITION

Total benefits paid in fiscal year 2018 were \$791.0 million, an increase of \$34.1 million or 4.5% over the fiscal year 2017 level of \$756.9 million. Pension benefits paid in fiscal year 2018 were \$741.8 million, an increase of \$35.4 million or 4.7% compared with the pension benefits paid in fiscal year 2017 of \$706.3 million. The increase in pension benefits paid in fiscal year 2018 is primarily due to an increase in the number of retirees and increased average benefit levels for those new retirees. OPEB benefits paid in fiscal year 2018 were \$49.2 million, which was slightly lower than the benefits paid in 2017. Future OPEB benefit payments will remain flat or go down over time since there is a very small population of active members that can still qualify for this benefit. Refunds of contributions were \$24.0 million, an increase of \$0.6 million or 2.6% over the 2017 level of \$23.4 million. The increase reflects an increase in the number and dollar value of refund requests from terminated members in 2018.

Administrative expenses increased by \$0.1 million or 1.3% in fiscal year 2018 to a level of \$7.8 million compared with \$7.7 million in 2017. Administrative expenses increased primarily due to increased technology, wage, and benefit costs.



PLAN FUNDING STATUS

Funded ratios are a useful measurement that can be used in conjunction with many other factors to assess the financial soundness of a pension or OPEB plan. The Pension Plan’s funded ratio is calculated by dividing the plan fiduciary net position of assets available to pay pension benefits by the total pension liability. The OPEB Plan’s funded ratio is calculated by dividing the plan fiduciary net position of assets at year end by its total OPEB liability at year end. The liabilities that were used to determine the funded ratios for both the Pension and OPEB plan were determined using the entry age normal actuarial cost method for both fiscal year 2018 and 2017.

The total pension liability under GAAP at June 30, 2018, was \$13,652.1 million. The fiduciary net position available to pay pension benefits at June 30, 2018 was \$8,836.9 million, resulting in a net pension liability of \$4,815.2 million and a total pension liability of 64.7% of the plan fiduciary net position at June 30, 2018, as of June 30, 2017, it was \$13,172.0 million. The plan fiduciary value of assets available to pay pension benefits at June 30, 2017 was \$8,254.0 million, resulting in a net pension liability of \$4,918.0 million and a funded ratio of 62.7%.

The total OPEB liability under GAAP at June 30, 2018, was \$495.2 million. The fiduciary net position available to pay postemployment medical benefits at June 30, 2018 was \$37.3 million resulting in a net OPEB liability of \$457.8 million and an OPEB liability of 7.5% at June 30, 2018. As of June 30, 2017, the total OPEB liability was \$496.5 million. The fi-

duciary net position available to pay OPEB benefits at June 30, 2017 was \$39.3 million resulting in a net OPEB liability of \$457.2 million and a net OPEB liability of 7.9%.

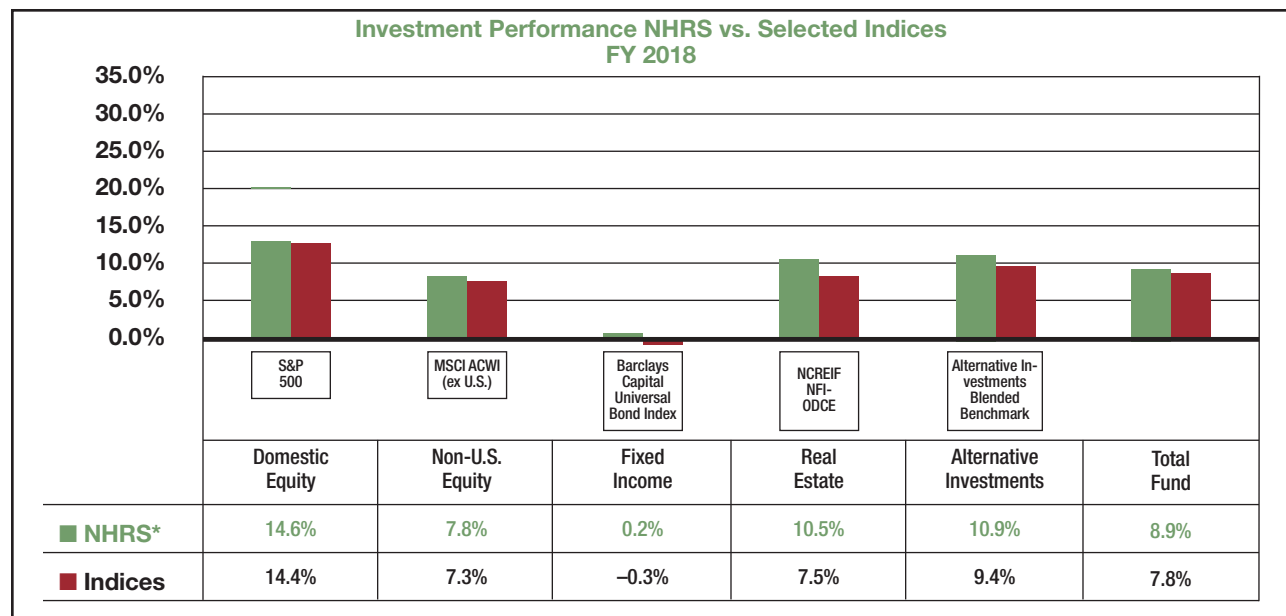
INVESTMENT PERFORMANCE

NHRS recognizes that it operates in a dynamic economic environment. The challenges of investing the Plans’ funds strategically to achieve the actuarial rate of return while controlling risk are greater than ever. As such, NHRS has allocated assets to a broad range of asset classes.

Equity (48%), fixed income investments (21%), and cash equivalents (3%) comprise approximately 72% of invested assets at June 30, 2018. The remaining 28% of assets are invested in real estate (9%) and alternative investments (19%), which include private equity, private debt and absolute return strategies. These illiquid assets are expected to earn enhanced returns and manage risk through further diversification.

Investment performance results are measured by the relationship of the Plans’ portfolio returns for equity and fixed income investments against widely-accepted market indices. For the fiscal year ended June 30, 2018, the Plans’ total fund time-weighted rate of return was 8.9% compared to 13.5% for the fiscal year ended June 30, 2017. The difference in year-over-year performance was due to moderating global capital markets, particularly outside of the U.S.

The total NHRS fund time-weighted rate of return of 8.9% for fiscal year 2018 outperformed the total fund custom index (a blended composition of major market indices in proportion to the NHRS’ asset allocation), which returned 7.8%, by 110 basis points. The NHRS outperformed relative to the index, the NHRS also outperformed 80% of its peers. Domestic Equity generated a return of 14.6%, outperforming the S&P 500 Index return of 14.4% by 120 basis points. The non-U.S. equity portfolio returned 7.8% during fiscal year 2018, outperforming the MSCI All Country World (ex U.S.) index return of 7.3% by 50 basis points. Fixed income returned 0.2% and outperformed the Barclays Capital Universal Bond Index benchmark return of -0.3% by 50 basis points. The real estate portfolio gained 10.5% and outperformed the NCREIF NFI-ODCE (Net of fee) Index return of 7.5% by 300 basis points. The alternative investment class provided a 10.9% return and outperformed the blended benchmark return of 9.4% by 150 basis points. The benchmark for this asset class is 33% S&P 500 Index +3%, 33.3% S&P LSTA Leverage Loan Index, 33.3% Cash (1-month USD LIBID) +5%.



**Performance returns are calculated on a net-of-fees time-weighted rate of return basis.

CONTACTING NHRS

The Comprehensive Annual Financial Report is designed to provide a general overview of NHRS investment results and financial condition of the Pension and OPEB Plan for the year ended June 30, 2018. Detailed information regarding NHRS' investments as of June 30, 2018 can be found in the Comprehensive Annual Investment Report which is published by the Independent Investment Committee of the NHRS. Please contact the NHRS office at (603) 410.3500 for additional financial information or for questions related to this report, or the Comprehensive Annual Investment Report. Additional information can also be obtained from the NHRS website at www.nhrs.org.

BASIC FINANCIAL STATEMENTS

COMBINING STATEMENTS OF FIDUCIARY NET POSITION PENSION AND OTHER POSTEMPLOYMENT MEDICAL PLANS (OPEB) AS OF JUNE 30, 2018 (with summarized financial information as of June 30, 2017)

(in thousands)

	PENSION PLAN 2018	OPEB PLAN 2018	TOTAL 2018	TOTAL 2017
ASSETS:				
Cash & Cash Equivalents	\$ 290,203	\$ 1,076	\$ 291,279	\$ 194,549
Receivables:				
Due from Employers	45,846	4,784	50,630	47,758
Due from Plan Members	22,496	0	22,496	23,038
Due from Brokers for Securities Sold	17,326	64	17,390	15,808
Interest and Dividends	17,048	63	17,111	17,484
Other	4,465	17	4,482	3,162
TOTAL RECEIVABLES	107,181	4,928	112,109	107,250
INVESTMENTS AT FAIR VALUE				
Equity Investments:				
Domestic	2,943,605	10,919	2,954,524	2,934,950
Non-U.S.	1,277,625	4,739	1,282,364	1,208,081
Fixed Income Investments:				
Domestic	1,621,205	6,013	1,627,218	1,596,997
Non-U.S.	205,037	761	205,798	217,508
Real Estate	802,178	2,975	805,153	815,293
Alternative Investments	1,627,671	6,037	1,633,708	1,247,185
TOTAL INVESTMENTS	8,477,321	31,444	8,508,765	8,020,014
Other Assets	140	1	141	171
TOTAL ASSETS	8,874,845	37,449	8,912,294	8,321,984
LIABILITIES:				
Management Fees and Other Payables	9,924	37	9,961	9,632
Due to Brokers for Securities Purchased	28,054	104	28,158	19,091
TOTAL LIABILITIES	37,978	141	38,119	28,723
NET POSITION RESTRICTED FOR PENSION AND OTHER POST EMPLOYMENT BENEFITS (OPEB)	\$8,836,867	\$37,308	\$8,874,175	\$8,293,261

The accompanying notes are an integral part of the financial statements.

**COMBINING STATEMENTS OF CHANGES IN FIDUCIARY NET POSITION
PENSION AND OTHER POSTEMPLOYMENT MEDICAL PLANS (OPEB)
FOR THE YEAR ENDED JUNE 30, 2018
(with summarized financial information for the year ended June 30, 2017)**

(in thousands)

	PENSION PLAN 2018	OPEB PLAN 2018	TOTAL 2018	TOTAL 2017
ADDITIONS:				
Contributions:				
Employer – Normal	\$ 422,160	\$44,194	\$ 466,354	\$ 425,684
Employer – Other	499	–	499	166
Total Employer Contributions	422,659	44,194	466,853	425,850
Plan Member	217,572	–	217,572	213,061
Total Contributions	640,231	44,194	684,425	638,911
Investment Income (Loss)				
From Investment Activities:				
Net Appreciation (Depreciation) in Fair Value of Investments	557,164	2,448	559,612	835,435
Interest	54,379	231	54,610	55,433
Dividends	73,582	313	73,895	73,487
Net Real Estate Income	30,852	132	30,984	16,518
Alternative Investment Income (Loss)	29,868	127	29,995	27,383
Total Income (Loss) from Investment Activities	745,845	3,251	749,096	1,008,256
Less: Investment Expenses:				
Investment Management Fees	26,450	112	26,562	23,635
Custodial Fees	630	3	633	614
Investment Advisor Fees	747	3	750	740
Investment Professional Fees	287	1	288	349
Investment Administrative Expense	642	3	645	627
Total Investment Activity Expenses	28,756	122	28,878	25,965
Total Net Income from Investment Activities	717,089	3,129	720,218	982,291
Total Net Investment Income	717,089	3,129	720,218	982,291
TOTAL ADDITIONS	1,357,320	47,323	1,404,643	1,621,202
DEDUCTIONS:				
Benefits Paid	741,753	49,251	791,004	756,864
Refunds of Contributions	24,010	–	24,010	23,408
Administrative Expense	7,767	33	7,800	7,703
Professional Fees	687	3	690	647
Other	224	1	225	264
TOTAL DEDUCTIONS	774,441	49,288	823,729	788,886
CHANGE IN NET ASSETS	\$ 582,879	\$(1,965)	\$ 580,914	\$ 832,316
NET POSITION RESTRICTED FOR PENSION BENEFITS AND OTHER POSTEMPLOYMENT BENEFITS (OPEB)				
Beginning of the Year	\$ 8,253,988	\$39,273	\$ 8,293,261	\$7,460,945
End of the Year	\$ 8,836,867	\$37,308	\$ 8,874,175	\$8,293,261

The accompanying notes are an integral part of the financial statements.

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FINANCIAL STATEMENTS**

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NOTE 1 — NEW HAMPSHIRE RETIREMENT SYSTEM

The New Hampshire Retirement System (NHRS) is a public employee retirement system that administers one cost-sharing multiple-employer defined benefit pension plan (Pension Plan) and one separate cost-sharing multiple-employer postemployment medical subsidy healthcare plan (OPEB Plan). Collectively the Pension Plan and the postemployment medical subsidy healthcare plan are hereafter referred to as the Plans.

NHRS is administered by a 13-member Board of Trustees that includes one employee member, one teacher member, one firefighter member, one police officer member, four employer representatives, four public members, and the State Treasurer. Trustees are fiduciaries bound by law to act solely in the interest of the participants and beneficiaries of the pension plan.

All trustees — with the exception of the State Treasurer, who serves as an ex officio member — are nominated by the governor for two-year terms and must be confirmed by a vote of the Executive Council. Any newly appointed or reappointed trustee must have familiarity with or experience in finance or business management.

The New Hampshire State Employees' Association, the New Hampshire Education Association, the New Hampshire Police Association, and the New Hampshire State Permanent Firemen's Association each submit a list of five active members of the retirement system from which the governor chooses a nominee to represent each of the four member groups.

The New Hampshire Municipal Association, the New Hampshire School Boards Association, and the New Hampshire Association of Counties each put forth a name to the governor for nomination as an employer trustee. The Governor also identifies and nominates one person to represent management of state employees.

The governor identifies and nominates the public member trustees, all of whom must be qualified persons with investment and/or financial experience who are not members of the retirement system. The public trustees must also have substantial experience in the field of institutional investment or finance such as educational background, business experience, and/or professional licensure and designations.

The governor is responsible to designate one of the public trustees to serve as chair of the board.

Although the assets of the Plans are commingled for investment purposes, each plan's assets may be used only for the payment of benefits to the members of that plan, in accordance with the plan's individual terms. Accordingly, the results of each plan are presented separately in the accompanying financial statements. Administrative costs and investment income or losses are allocated to the Pension and OPEB plans based on fund balances.

The administrative office of NHRS, which functions as a self-sustaining governmental entity, operates under a budget which is proposed by management, approved by the Board of Trustees, submitted under the budget preparation guidelines of the State of New Hampshire (State), and passed into law by the New Hampshire Legislature. NHRS participates as an employer in the Plans and its employees are members of the Plans.

In accordance with Governmental Accounting Standards Board (GASB) No. 14, as amended, the New Hampshire Retirement System is a component unit of the State. This determination was made on the basis of fiscal dependence on the State solely for budget oversight over certain administrative expenses. A copy of the State of New Hampshire's CAFR may be viewed at www.admin.state.nh.us/accounting/.

PENSION PLAN

The Pension Plan was established in 1967 by RSA 100-A:2 and is qualified as a tax-exempt organization under Sections 401(a) and 501(a) of the Internal Revenue Code. The Pension Plan is a contributory, defined benefit plan providing service, disability, death and vested retirement benefits to members and their beneficiaries. Substantially all full-time state employees, public school teachers and administrators, permanent firefighters and permanent police officers within the State are eligible and required to participate in the Pension Plan. Full-time employees of political subdivisions, including counties, municipalities and school districts, are also eligible to participate as a group if the governing body of the political subdivision has elected participation.

The type and number of employers contributing to the Pension Plan during the years ended June 30, 2018 and 2017 are presented below.

For GASB 67 disclosure purposes all State entities contributing to the pension plan are considered one employer.

EMPLOYERS CONTRIBUTING	2018	2017
State Government	1	1
City Governments	13	13
Town Governments and Related Entities	244	244
County Governments and Related Entities	12	12
School Districts and School Administrative Units	197	201
Total Employers	467	471

MEMBERSHIP DATA	2018	2017
Retired plan members (or their beneficiaries) currently receiving benefits	37,012	35,694
Inactive members entitled to but not yet receiving benefit payments	13,874	12,758
Active plan members	48,121	47,886
Total Membership	99,007	96,338

The Pension Plan is divided into two membership groups. State and local employees and teachers belong to Group I. Police officers and firefighters belong to Group II. All assets are held in a single trust and are available to pay retirement benefits to all members. Benefits available to each membership group are summarized below.

Group I Members at age 60 qualify for a normal service retirement allowance based on years of creditable service and average final salary for the highest three years. Members commencing service on or after July 1, 2011 qualify for a normal service retirement allowance at age 65 based on years of creditable service and average final compensation for the highest five years. Members hired prior to July 1, 2011 with a non-vested status as of January 1, 2012 qualify for a normal service retirement allowance at age 60 based on years of creditable service and average final compensation for the highest five years. The yearly pension amount is 1/60 or 1.667% of average final compensation (AFC), multiplied by years of creditable service. AFC is defined as the average of the three or five highest salary years, and for benefit calculation purposes only, the final year's compensation cannot exceed by more than 150% the higher of the previous year's compensation or the compensation for the highest year used in the calculation of AFC (not including the final year's compensation). At age 65, the yearly pension amount is recalculated at 1/66 or 1.515% of AFC multiplied by years of creditable service. Members in service with 10 or more years of creditable service who are between age 50 and 60 or members in service with at least 20 years of creditable service, whose age plus service is equal to or greater than 70, are entitled to a retirement allowance with the appropriate graduated reduction based on years of creditable service. Members commencing service on or after July 1, 2011 at age 60 with 30 years of creditable service are entitled to a retirement allowance with the appropriate graduated reduction based on years of creditable service.

Group II Members who are age 60, or members who are at least age 45 with at least 20 years of creditable service, can receive a retirement allowance at a rate of 2.5% of AFC for each year of creditable service, not to exceed 40 years. Members commencing service on or after July 1, 2011 or members who have a non-vested status as of January 1, 2012 can receive a retirement allowance at age 52.5 with 25 years of 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 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 $\frac{1}{4}$ of 1% or age 60.

Members of both groups may qualify for vested deferred allowances, disability allowances and death benefit allowances subject to meeting various eligibility requirements. Benefits are based on AFC or earnable compensation and/or service.

Members are required to contribute a percentage of gross earnings to the Pension Plan as more fully described in Note 6. The percentage rates, established by state statute, are dependent upon member group classification. The deductions are made from member wages and are remitted by the employer to the Pension Plan on a monthly basis. If a member leaves employment prior to retirement or vesting, accumulated member contributions plus earned interest are refunded to the withdrawing member or to the designated beneficiary in the case of death. However, accumulated contributions plus interest of a non-vested, non-contributing member may remain in the Pension Plan and continue to earn interest. The interest credited to the inactive member's accumulated contributions will be 2 percentage points less than the assumed rate of return or the actual rate of return, whichever is less as reported in the preceding fiscal year's comprehensive annual financial report, but will not be less than zero.

Employers make monthly contributions to the Pension Plan based on rates determined by periodic actuarial valuations as more fully described in Note 6.

OTHER POSTEMPLOYMENT BENEFIT PLAN (OPEB)

Pursuant to RSA 100-A:52, RSA 100-A:52-a and RSA 100-A:52-b, the NHRS administers a cost-sharing multiple employer defined benefit postemployment medical subsidy healthcare plan designated in statute by membership type. The four membership groups are Group II Police Officer and Firefighters, Group I Teachers, Group I Political Subdivision Employees and Group I State Employees. Collectively, they are referred to as the OPEB Plan.

The OPEB Plan provides a medical insurance subsidy to qualified retired members. The medical subsidy is a payment made by NHRS to the former employer or their insurance administrator toward the cost of health insurance for a qualified retiree, his/her qualified spouse, and his/her certifiably dependent children with a disability who are living in the household and being cared for by the retiree. Under specific conditions, the qualified beneficiaries of members who die while in service may also be eligible for the medical subsidy. The eligibility requirements for receiving OPEB Plan benefits differ for Group I and Group II members.

The following Group I members and their qualified spouses are eligible for coverage under the postemployment medical plan if they are receiving health coverage under the group plan offered by their former employer:

- Employee and teacher members of political subdivisions who were eligible to retire as of July 1, 2008 and who actually retired 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.
- 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 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.
- Surviving spouses of deceased employee and teacher members of political subdivisions who die while in service, provided that such surviving spouse was covered as the member's spouse in the employer-sponsored plan before the member's death and is entitled to a monthly allowance under Accidental Death, Ordinary Death, or an Optional Allowance.
- Surviving spouses and children of employee and teacher members of political subdivisions and employee members of the State 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, or upon the spouse's remarriage.
- Vested terminated employee members of the State (and spouses) who completed at least 20 years of creditable service and as of July 1, 2004 received an allowance and who subsequently attain age 60.
- Employee members of the State (and spouses) who retired on or before July 1, 2004 after completing at least 20 years of creditable service and who subsequently attained age 60; or after completing at least 30 years of creditable service and who subsequently attained age 55.
- 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.

The following Group II members are eligible for the postemployment medical plan:

- Group II police officer members (or beneficiaries) who are active or retired as of June 30, 2000.
- Group II firefighter members (or beneficiaries) who are active or retired as of June 30, 2000.
- Persons who prior to July 1, 1988, had completed at least 20 years of Group II service and were 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 had 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 OPEB plan is closed to new entrants.

The OPEB Plan is funded by allocating to the 401(h) subtrust the lesser of:

- a.) 25% of all employer contributions made in accordance with RSA 100-A:16; or

b.) the percentage of employer contributions determined by the actuary to be the minimum rate necessary to maintain the benefits provided under RSA 100-A:53, RSA 100-A:53-b, RSA 100-A:53-c and RSA 100-A:53-d.

For fiscal year 2018, the minimum rates determined by the actuary to maintain benefits were the lesser of the two options and were used to determine the employer contributions due to the 401(h) subtrust.

The State Legislature has the authority to establish, amend and discontinue the contribution requirements of the OPEB Plan.

The type and number of employers contributing to the OPEB plan during the years ended June 30, 2018 and June 30, 2017 are presented below.

EMPLOYERS CONTRIBUTING	2018	2017
State Government	1	1
City Governments	13	13
Town Governments and Related Entities	244	244
County Governments and Related Entities	12	12
School Districts and School Administrative Units	197	201
Total Employers	467	471

Membership of the OPEB plan consisted of the following eligible retirees receiving benefits as of June 30, 2018 and 2017:

MEMBERSHIP DATA	2018	2017
Inactive plan members of beneficiaries currently receiving benefit payments	9,835	9,965
Inactive plan members entitled to but not yet receiving benefit payments	2,934	2,937
Active plan members	1,218	1,382
Total Membership	13,987	14,284

The maximum monthly subsidy amounts paid during fiscal year 2018 and 2017 were as follows:

For qualified retirees not eligible for Medicare the amounts were \$375.56 for a single-person plan and \$751.12 for a two-person plan. For those qualified retirees eligible for Medicare, the amounts were \$236.84 for a single-person plan and \$473.68 for a two-person plan. There have been no increases in the monthly maximum subsidy amounts payable since July 1, 2007.

Benefit provisions of the OPEB Plan can be amended only by legislative action taken by the New Hampshire State Legislature pursuant to the authority granted them under the New Hampshire State Constitution. The Legislature may cease providing the medical subsidy benefits under the OPEB Plan, for any reason, at any time.

NOTE 2 – SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES AND PLAN ASSET MATTERS

BASIS OF ACCOUNTING

The System's financial statements are prepared using the accrual basis of accounting. Both plan member and employer contributions are recognized in the period in which the contributions are legally due. Benefits and refunds are recognized when due and payable in accordance with the terms of the plan.

The financial statements include prior-year summarized comparative financial information in total but not on a combining plan basis. Such summarized information is not intended to constitute sufficient detail to establish a presentation in accordance with GAAP and, accordingly, should be read in conjunction with the System's financial statements for the year ended June 30, 2017, from which the summarized information was derived.

PRIOR YEAR RECLASSIFICATIONS

Certain 2017 information has been reclassified to conform to the 2018 presentation. These reclassifications had no impact to the Net Position Held in Trust for Pensions and Other Post Employment Benefits.

INVESTMENTS

Investments are reported at fair value.

Investments in both domestic and non-U.S. marketable securities are valued at current market prices and expressed in U.S. dollars. NHRS uses a trade-date accounting basis for these investments. Investments in non-registered commingled funds are valued at net asset value (NAV) as a practical expedient to estimate fair value.

Real estate includes investments in commingled funds. The NAVs for real estate investments recorded in this report were obtained from statements provided by the general partners of commingled funds. Real estate commingled funds are selected by the System's discretionary real estate manager.

Alternative investments include investments in private equity, private debt and absolute return strategies. The NAVs for alternative investments recorded in this report were obtained from statements provided by the investment managers.

Cash and cash equivalents are valued at cost, which approximates fair value. Cash and cash equivalents primarily represent investments in the pooled short-term investment fund managed by NHRS' master custodian. This fund invests mainly in high-grade money market instruments with maturities averaging less than three months. The fund provides daily liquidity.

The Plans hold no investments, either directly or indirectly, nor participates in any loans or leases, nor other party-in-interest transactions with any NHRS officials, New Hampshire State Government officials, or parties related to these officials.

MONEY WEIGHTED RATE OF RETURN

The annual money-weighted rate of return at June 30, 2018 was 8.9% and 13.4% for June 30, 2017. The return shows the investment performance net of fees and is adjusted for the timing of cash flows and the changing amounts actually invested.

USE OF ESTIMATES

Management of the System has made a number of estimates and assumptions relating to the reporting of assets and liabilities and in the disclosure of contingencies to prepare these financial statements in conformity with U.S. generally accepted accounting principles (GAAP). The System's most significant estimates relate to assumptions made about future events as part of the annual actuarial valuation process, and the valuation of alternative investments. Due to the inherent nature of these estimates, actual results could differ from those estimates.

NOTE 3 — INVESTMENTS AND DEPOSITS

RSA 100-A:15, I, provides separate and specific authorities to the Board of Trustees and the Independent Investment Committee for the management of the funds of the Plans and charges them with exercising the judgment and care under the circumstances then prevailing, which persons of prudence, discretion and intelligence, acting in a like capacity and familiar with such matters, would use in the conduct of a pension plan of like character and with like aims of the Plans.

To aid in the prudent investment of the Plans' assets, NHRS has adopted an Investment Manual which includes an investment policy. Primary components of the investment policy include the delineation of roles and responsibilities of the Board of Trustees, Independent Investment Committee, staff, and service providers; investment objectives; asset allocation policy; and asset class performance measurement and monitoring policy. This policy may be modified by the Board of Trustees as deemed necessary. In addition, the Investment Manual includes asset class guidelines which provide parameters for investment management.

Professional investment managers are bound by policy and contract to a standard of care that establishes a fiduciary relationship, to the extent permitted by law, requiring the manager to act prudently and solely in the best interest of the Plans and beneficiaries. Investment guidelines provide portfolio-level standards for separate account management including permissible investment types; security concentration thresholds; investment restrictions; and benchmarks for performance measurement and monitoring. NHRS utilizes a custodial bank compliance system to monitor the marketable investment portfolios against their respective guidelines.

The System's asset allocation as of June 30, 2018 and 2017, as recommended by the Independent Investment Committee and adopted by the Board of Trustees, is as follows:

ASSET ALLOCATION	2018		2017	
	Target	Range	Target	Range
Asset Class:				
Large Cap Equities	22.5%		22.5%	
Small/Mid Cap Equities	7.5%		7.5%	
Total Domestic Equity	30.0%	20–50%	30.0%	20–50%
Int'l Equities (Unhedged)	13.0%		13.0%	
Emerging Int'l Equities	7.0%		7.0%	
Total International Equity	20.0%	15–25%	20.0%	15–25%
Core Bonds	4.5%		5.0%	
Short Duration	2.5%		2.0%	
Global Multi-Sector Fixed Income	11.0%		11.0%	
Absolute Return Fixed Income	7.0%		7.0%	
Total Fixed Income	25.0%	20–30%	25.0%	20–30%
Private Equity	5.0%		5.0%	
Private Debt	5.0%		5.0%	
Opportunistic	5.0%		5.0%	
Total Alternative Investments	15.0%	5–25%	15.0%	5–25%
Real Estate	10.0%		10.0%	
Total Real Estate	10.0%	5–20%	10.0%	5–20%
TOTAL	100.0%		100.0%	

CUSTODIAL CREDIT RISK – DEPOSITS

Custodial credit risk for deposits is the risk that in an event of a bank failure, deposits may not be recovered. NHRS does not have a deposit policy to manage custodial credit risk on deposits.

At June 30, 2018 and 2017, NHRS held deposits of \$8.8 million and \$9.4 million, respectively, in the local custodian bank. These deposits are fully insured or collateralized and are used to support the daily working capital needs of NHRS.

CUSTODIAL CREDIT RISK – INVESTMENTS

Investment securities are exposed to custodial credit risk if the investment securities are uninsured, are not registered in the name of the Plans, and are held by either:

- a. The counterparty to a transaction or
- b. The counterparty's trust department or agent but not in the Plans' name.

All of the System's securities are held by the System's bank in the System's name.

CONCENTRATION OF CREDIT RISK

Concentration of credit risk is the risk of loss attributable to the magnitude of the Plans' investments in a single issuer. NHRS policy is expressed through individual separate account manager guidelines which limit investments in a single issuer to 10%, or less, of the portfolio value in order to control the overall risk of loss on a total portfolio level. This threshold is set as an upper limit, and in actual practice, managers generally do not reach this limit. Certain securities may be excluded from this limitation due to the nature of the investments (such as U.S. government securities, government-sponsored enterprise obligations, and supranational debt). NHRS fixed income managers have consistently adhered to the established guidelines for issuer concentration. The fixed income commingled fund managers have established investment guidelines regarding concentration of credit risk. The total portfolio is broadly-diversified across equities, fixed income, cash equivalent securities, real estate and alternative investments. Due to this diversification, the concentration of credit risk in a single issuer is below 5% at the total portfolio level.

INTEREST RATE RISK – FIXED INCOME INVESTMENTS

Interest rate risk is the effect on the fair value of fixed income investments from changes in interest rates. Duration measures a debt investment's change in fair value arising from a change in interest rates.

Interest rate risk is illustrated below using the effective duration or option-adjusted methodology. This methodology is widely-used in the management of fixed income portfolios to quantify the risk associated with interest rate changes. The

effective duration methodology takes into account the most likely timing and magnitude of variable cash flows, such as callable options, prepayments and other factors, and scales the risk of price changes on bonds depending upon the degree of change in rates and the slope of the yield curve.

The NHRS policy on duration is expressed through individual portfolio guidelines with each investment manager in lieu of a broad, plan-level policy. Duration guidelines have been established with each fixed income manager in order to manage interest rate risk within the separate account portfolios. The fixed income commingled fund managers also have established investment guidelines regarding duration. These provisions specify that the duration of each individual fixed income portfolio will be managed within a specified percentage or number of years relative to its benchmark index. NHRS fixed income managers follow the established guidelines for duration. If there is an occasional exception, the manager prudently remedies the guideline breach.

The following effective duration tables quantify the interest rate risk of the Plans' fixed income assets at June 30, 2018 and 2017:

EFFECTIVE DURATION — FIXED INCOME INVESTMENTS (dollars in thousands)
AT JUNE 30, 2018

Investment Type	Fair Value June 30, 2018	Percentage of Fixed Income Investments	Effective Duration in Years	Weighted Average Effective Duration in Years
Collateralized/Asset Backed Obligations	\$ 143,582	7.8%	3.0	0.2
Corporate Bonds	596,944	32.6	4.9	1.6
Government and Agency Bonds*	656,414	35.8	4.4	1.6
Commingled Fund	210,767	11.5	2.1	0.24
Commingled Fund	225,309	12.3	(1.2)	(0.1)
Totals	\$1,833,016	100.0%		3.5

*Does not include two U.S. Treasury Bills that have a duration of less than one year.

EFFECTIVE DURATION — FIXED INCOME INVESTMENTS (dollars in thousands)
AT JUNE 30, 2017

Investment Type	Fair Value June 30, 2017	Percentage of Fixed Income Investments	Effective Duration in Years	Weighted Average Effective Duration in Years
Collateralized/Asset Backed Obligations	\$ 145,486	8.0%	4.5	0.4
Corporate Bonds	590,951	32.6	5.5	1.8
Government and Agency Bonds*	643,823	35.5	6.2	2.2
Commingled Fund	222,500	12.2	(0.4)	(0.04)
Commingled Fund	211,745	11.7	2.4	0.3
Totals	\$1,814,505	100.0%		4.7

*Does not include one U.S. Treasury Bill and one FNMA holding that have a duration of less than one year.

CREDIT RISK — FIXED INCOME SECURITIES

Credit risk is the risk that an issuer or other counterparty to an investment will not fulfill its obligations.

NHRS controls credit risk on debt securities by establishing requirements for average credit quality at the separate account portfolio level and through credit quality standards for individual securities. The NHRS policy on credit quality is expressed through individual portfolio guidelines with each investment manager in lieu of a broad, plan-level policy. The investment guidelines are customized to the individual manager's strategy. NHRS fixed income managers follow established guidelines for credit quality. If there is an occasional exception, the manager prudently remedies the guideline breach. NHRS applies standards with regard to securities rated by nationally recognized statistical rating organizations ("NRSRO") and uses the lowest agency ratings for evaluating the credit quality of a specific security. The fixed income commingled fund managers have established investment guidelines regarding credit risk.

The following schedules illustrate the Plans' fixed income investments as of June 30, 2018 and 2017, including the distribution of those investments by Standard & Poor's quality credit ratings:

CREDIT QUALITY RISK — FIXED INCOME SECURITIES AT JUNE 30, 2018 (in thousands)

Investment Type	Quality Ratings ¹					
	Fair Value June 30, 2018	AAA	AA	A	BBB or Lower	Unrated
Collateralized/Asset Backed Obligations	\$ 143,582	\$100,680	\$ 1,936	\$ 5,620	\$ 16,117	\$19,229
Corporate Bonds	596,944	6,304	37,946	147,924	398,154	6,616
Government and Agency Bonds ²	235,113	18,495	43,369	100,842	62,101	10,306
Commingled Fund ³	225,309	—	—	225,309	—	—
Commingled Fund ³	210,767	—	—	—	210,767	—
Totals	\$1,411,715	\$125,479	\$83,251	\$479,695	\$687,139	\$36,151
Percent of Total Fair Value		8.89%	5.90%	33.98%	48.67%	2.56%

¹Ratings were derived primarily from Standard & Poor's (S&P). In instances where S&P did not rate a security, the Moody's rating was used.

²Government and Agency Bonds exclude U.S. government securities and securities explicitly guaranteed by the U.S. government (\$421,301) because these securities are not considered to have credit risk.

³Average credit quality rating for the commingled funds was provided by GAM and Manulife respectively.

CREDIT QUALITY RISK — FIXED INCOME SECURITIES AT JUNE 30, 2017 (in thousands)

Investment Type	Quality Ratings ¹					
	Fair Value June 30, 2017	AAA	AA	A	BBB or Lower	Unrated
Collateralized/Asset Backed Obligations	\$ 145,486	\$103,914	\$ 2,455	\$ 6,317	\$ 17,692	\$15,108
Corporate Bonds	590,951	5,323	46,638	123,602	413,399	1,989
Government and Agency Bonds ²	152,631	13,374	25,186	65,352	48,719	—
Commingled Fund ³	222,500	—	—	222,500	—	—
Commingled Fund ³	211,745	—	211,745	—	—	—
Totals	\$1,323,313	\$122,611	\$286,024	\$417,771	\$479,810	\$17,097
Percent of Total Fair Value	100.00%	9.27%	21.61%	31.57%	36.26%	1.29%

¹Ratings were derived primarily from Standard & Poor's (S&P). In instances where S&P did not rate a security, the Moody's rating was used.

²Government and Agency Bonds exclude U.S. government securities and securities explicitly guaranteed by the U.S. government (\$491,192) because these securities are not considered to have credit risk.

³Average credit quality rating for the commingled funds was provided by GAM and Manulife respectively.

Investments in asset-backed and mortgage-backed securities are reported at fair value. Although not generally considered to be derivatives, asset-backed and mortgage-backed securities receive cash flows from interest and principal payments on the underlying assets and mortgages. As a result, they are exposed to prepayment risk. As of June 30, 2018 and 2017, the Plans' combined investment in asset-backed and mortgage-backed securities held in separate account portfolios totaled \$127.2 million and \$131.0 million, respectively.

FOREIGN CURRENCY RISK — INVESTMENTS:

Foreign currency risk is the risk that changes in exchange rates will adversely affect the fair value of an investment.

NHRS manages its foreign currency risk primarily through its strategic asset allocation policy. As of June 30, 2018, investments in non-U.S. equity securities have a target asset allocation of 20% of total investments with a target range of 15–25%. As of June 30, 2018, non-U.S. fixed income securities represent 2.7% of the total investments as a result of the managers' security selection process. Non-U.S. investments are permitted in the alternative investment asset class, which includes private equity, private debt and absolute return strategy investments. The target allocation for alternative investments is 15% and the NHRS investment policy does not set limits for foreign investments in this asset class. The target allocation for real estate investments is 10%, and up to 35% of the Plans' real estate allocation may be invested in non-U.S. investments.

In addition, foreign currency risk is mitigated through the investment guidelines. NHRS manages its foreign exposure by requiring that separate account managers diversify their non-U.S. portfolios by country, sector and issuer to limit both foreign currency risk and security risk. Managers of commingled funds have discretion over their respective investment

guidelines which must be consistent with strategies approved by the NHRS. In certain instances, where permitted in the investment guidelines, investment managers may also use foreign currency forward contracts to hedge against foreign currency risk.

The Plans' exposure to foreign currency risk at June 30, 2018 and 2017 is presented on the following schedules:

FOREIGN CURRENCY RISK — NON-U.S. INVESTMENTS (in thousands)
AS OF JUNE 30, 2018

Currency	Equity*	Fixed Income	Real Estate & Alternative Investments	Cash and Cash Equivalents	Totals
Australian dollar	\$ 14,814	\$ 19,778	\$ —	—	\$ 34,592
Brazilian real	3,066	16,062	—	—	19,128
Canadian dollar	29,262	5,078	5,577	—	39,917
Colombian Peso	—	6,923	—	—	6,923
Danish krone	13,727	—	—	—	13,727
Euro	288,271	2,955	77,150	7,982	376,358
Hong Kong dollar	55,560	—	—	—	55,560
Indonesian rupiah	4,289	12,630	—	—	16,919
Japanese yen	80,389	—	19,845	105	100,339
Malaysian ringgit	—	22,564	—	—	22,564
Mexican peso	1,518	55,013	—	—	56,531
New Zealand dollar	—	5,007	—	—	5,007
Norwegian krone	3,423	387	—	—	3,810
Polish zloty	—	19,972	—	—	19,972
Pound sterling	141,935	20,517	4,685	—	167,137
South African rand	—	17,018	—	—	17,018
South Korean won	17,073	—	—	177	17,250
Swedish krona	2,013	—	—	—	2,013
Swiss franc	65,248	—	—	—	65,248
Turkish lira	—	1,895	—	—	1,895
Total investments subject to foreign currency risk	\$720,588	\$205,799	\$ 107,257	\$ 8,264	\$ 1,041,908

*NHRS also invests in commingled funds where foreign currency risk information is not available. As a result, totals for equity shown on this schedule will not match the total non-U.S. equity shown on the Combining Statements of Fiduciary Net Position.

FOREIGN CURRENCY RISK – NON-U.S. INVESTMENTS
AS OF JUNE 30, 2017

(in thousands)

Currency	Equity*	Fixed Income	Real Estate & Alternative Investments	Cash and Cash Equivalents	Totals
Australian dollar	\$ 14,543	\$ 23,791	—	\$ —	\$ 38,334
Brazilian real	1,489	19,500	—	—	20,989
British pound sterling	113,267	20,382	6,522	6	140,177
Canadian dollar	27,985	5,195	—	127	33,307
Danish krone	12,866	—	—	—	12,866
Euro	238,581	14,588	71,114	82	324,365
Hong Kong dollar	49,631	—	—	—	49,631
Indonesian rupiah	4,853	15,175	—	—	20,028
Japanese yen	95,178	—	21,247	64	116,489
Malaysian ringgit	—	17,981	—	—	17,981
Mexican peso	3,340	56,667	—	—	60,007
New Taiwan Dollar	3,838	—	—	—	3,838
New Zealand dollar	—	6,984	—	—	6,984
Norwegian krone	—	389	—	—	389
Polish zloty	—	20,095	—	—	20,095
South African rand	—	15,804	—	—	15,804
South Korean won	22,540	—	—	19	22,559
Swedish krona	5,909	—	—	—	5,909
Swiss franc	70,368	—	—	—	70,368
Turkish lira	—	957	—	—	957
Total investments subject to foreign currency risk	\$664,388	\$ 217,508	\$ 98,883	\$ 298	\$ 981,077

*NHRS also invests in commingled funds where foreign currency risk information is not available. As a result, totals for equity shown on this schedule will not match the total non-U.S. equity shown on the Combining Statements of Fiduciary Net Position.

DERIVATIVES

Derivative instruments are contracts whose values are based on the valuation of an underlying asset, reference rate or index. Derivatives include futures, options, forward contracts and forward foreign currency exchanges. NHRS managers may enter into certain derivative instruments primarily to enhance the efficiency and reduce the volatility of the portfolio. There were no investments in options within the separate account portfolios. The NHRS investment policy and certain investment manager guidelines allow for the use of derivative instruments. The use of futures, options, or forward contracts is not permitted for any speculative hedging or leveraging of the portfolios and is prohibited in separate account mandates. Managers of commingled funds have discretion over their respective investment guidelines which may allow for the use of derivative instruments.

The Plans could be exposed to risk if the counterparties to the contracts are unable to meet the terms of the contracts. To mitigate this risk, investment managers conduct assessments of their counterparties and utilize exchanges which have trading standards.

NHRS managers may use futures, options, and foreign currency exchange contracts in order to manage currency risk or initiate transactions in non-U.S. investments. NHRS may be positively or negatively impacted by foreign currency risk due to fluctuations in the value of different currencies. The Plans could be exposed to risk if the counterparties to the contracts are unable to meet the terms of the contracts. To mitigate this risk, investment managers conduct assessments of their counterparties and utilize exchanges which have trading standards. The fair value of open foreign currency exchange contracts including unrealized appreciation or depreciation is recorded on the Statements of Net Plan Assets as Due from Brokers for Securities Sold and as Due to Brokers for Securities Purchased. Details of the System's outstanding derivatives at June 30, 2018 and June 30, 2017 are shown below:

Derivative Type	Notional Amounts		Fair Value	
	2018	2017	2018	2017
Futures				
Long Equity	\$12,111,120	\$3,752,395	\$12,106,047	\$3,749,156
TOTAL	\$12,111,120	\$3,752,395	\$12,106,047	\$3,749,156

Foreign currency exchange contracts open at June 30, 2018 and 2017 are shown below and on the following page:

**OPEN FOREIGN CURRENCY EXCHANGE CONTRACTS
AT JUNE 30, 2018**

(in thousands)

	Local Currency Amount	Effective Date	Maturity Date	Original Foreign Exchange Rate	Unrealized Appreci- ation (USD)	Unrealized (Depre- ciation) (USD)
Foreign currency exchange contracts purchased:						
Australian Dollar	10,660	5/14/18	8/17/18	1.353259 AUD/USD	—	(186)
Australian Dollar	12,980	5/11/18	8/17/18	1.353259 AUD/USD	—	(201)
Brazil Real	1,089	6/29/18	7/3/18	3.847400 BRL/USD	2	—
Canadian Dollar	87	6/29/18	7/3/18	1.315450 CAD/USD	—	—
Canadian Dollar	13,830	4/10/18	7/2/18	1.315237 CAD/USD	—	(441)
Canadian Dollar	10,040	4/5/18	7/12/18	1.315237 CAD/USD	—	(241)
Colombian Peso	49,410,000	4/16/18	8/6/18	2941.617713 COP/USD	—	(1,267)
Euro	91	6/28/18	7/2/18	0.856494 EUR/USD	1	—
Euro	274	6/28/18	7/2/18	0.856494 EUR/USD	3	—
Euro	209	6/29/18	7/3/18	0.856494 EUR/USD	—	—
Euro	1,060	6/28/18	8/20/18	0.853457 EUR/USD	12	—
Japanese Yen	2,740,000	5/8/18	8/13/18	110.4600840 JPY/USD	—	(484)
Norwegian Krone	13,600	4/17/18	7/20/18	8.144889 NOK/USD	—	(86)
Norwegian Krone	147,400	5/14/18	8/15/18	8.136463 NOK/USD	—	(413)
Pound Sterling	68	6/28/18	7/2/18	0.757432 GBP/USD	1	—
Pound Sterling	375	6/29/18	7/3/18	0.757432 GBP/USD	—	—
Swedish Krona	177,500	4/18/18	7/25/18	8.931540 SEK/USD	—	(1,466)
Swiss Franc	298	6/28/18	7/2/18	0.992950 SWK/USD	1	—
Swiss Franc	211	6/29/18	7/3/18	0.992950 SWK/USD	—	(1)
Swiss Franc	220	6/29/18	7/3/18	0.992950 SWK/USD	—	—
Turkish Lira	38,000	4/10/18	7/13/18	4.600600 TRY/USD	—	(807)
Foreign currency exchange contracts sold:						
Australian Dollar	8,648	5/14/18	8/17/18	0.7389570 USD/AUD	186	—
Colombian Peso	1,025	5/29/18	8/6/18	0.000340 USD/COP	9	—
Colombian Peso	960	6/20/18	8/6/18	0.000340 USD/COP	4	—
Colombian Peso	693	6/27/18	8/6/18	0.000340 USD/COP	—	(1)
Colombian Peso	1,631	5/23/18	8/6/18	0.000340 USD/COP	33	—
Colombian Peso	1,722	6/13/18	8/6/18	0.000340 USD/COP	43	—
Colombian Peso	1,372	6/5/18	8/6/18	0.000340 USD/COP	30	—
Euro	1,228	6/28/18	7/2/18	1.167550 USD/EUR	—	(12)
Euro	7,842	6/29/18	7/2/18	1.167550 USD/EUR	—	(38)
Euro	16	6/29/18	7/2/18	1.167550 USD/EUR	—	—
Euro	3,372	5/15/18	8/20/18	1.171705 USD/EUR	68	—
Hong Kong Dollar	83	6/28/18	7/3/18	0.127462 USD/HKD	—	—
Hong Kong Dollar	164	6/29/18	7/5/18	0.127464 USD/HKD	—	—
Japanese Yen	520	6/27/18	7/2/18	0.009028 USD/JPY	3	—
Polish Zloty	379	4/12/18	7/20/18	0.267160 USD/PLN	37	—
Pound Sterling	29	6/28/18	7/2/18	1.320250 USD/GBP	—	(1)
Pound Sterling	57	6/29/18	7/3/18	1.320250 USD/GBP	—	—
Pound Sterling	10,840	6/12/18	9/18/18	0.754848 USD/GBP	—	(184)
South African Rand	12,135	4/6/18	7/11/18	0.072886 USD/ZAR	1,348	—
Swedish Krona	59	6/28/18	7/2/18	0.111782 USD/SWK	—	(1)
Swedish Krona	61	6/29/18	7/3/18	0.111782 USD/SWK	—	—
Swedish Krona	112,700	5/14/18	9/21/18	8.891720 USD/SWK	—	(580)
Swedish Krona	74,100	5/11/18	9/21/18	8.891720 USD/SWK	—	(373)
Totals					\$1,781	\$(6,783)

OPEN FOREIGN CURRENCY EXCHANGE CONTRACTS
AT JUNE 30, 2017

(in thousands)

	Local Currency Amount	Effective Date	Maturity Date	Original Foreign Exchange Rate	Unrealized Appreci- ation (USD)	Unrealized (Depre- ciation) (USD)
Foreign currency exchange contracts purchased:						
Australian Dollar	11,520	5/12/17	8/17/17	.738276 AUD/USD	327	—
Canadian Dollar	381	6/29/17	7/5/17	0.769231 CAD/USD	—	—
Canadian Dollar	85	6/30/17	7/6/17	1.296200 CAD/USD	—	—
Canadian Dollar	13,980	6/13/17	8/4/17	1.321460 CAD/USD	192	—
Chilean Peso	4,300,000	2/28/17	7/14/17	653.300000 CLP/USD	—	(115)
Euro	43	6/29/17	7/3/17	1.1438000 EUR/USD	—	—
Euro	836	6/27/17	7/10/17	1.134120 EUR/USD	6	—
Euro	3,410	5/5/17	8/10/17	1.101720 EUR/USD	140	—
Hong Kong Dollar	1,966	6/29/17	7/3/17	0.1281130 HKD/USD	—	—
Hong Kong Dollar	1,303	6/30/17	7/3/17	7.8064000 HKD/USD	—	—
Indian Rupee	1,034,000	6/15/17	9/20/17	65.264000 INR/USD	15	—
Japanese Yen	24,410	6/27/17	7/3/17	111.8335000 JPY/USD	—	(1)
Japanese Yen	1,779,000	4/27/17	8/2/17	110.716500 JPY/USD	—	(215)
Norwegian Krone	76,900	4/5/17	7/10/17	8.584450 NWK/USD	224	—
Norwegian Krone	62,800	5/10/17	8/15/17	8.602410 NWK/USD	203	—
Norwegian Krone	56,600	5/11/17	8/15/17	8.581440 NWK/USD	167	—
Pound Sterling	7	6/29/17	7/3/17	1.3000000 GBP/USD	—	—
Pound Sterling	24,870	6/6/17	9/15/17	1.293490 GBP/USD	208	—
Swedish Krona	105,400	4/19/17	7/21/17	8.931900 SWK/USD	708	—
Swedish Krona	82,800	5/31/17	9/12/17	8.63095 SWK/USD	262	—
Turkish Lira	3,504	6/29/17	7/5/17	3.523700 YTL/USD	—	—
Foreign currency exchange contracts sold:						
Australian Dollar	205	6/29/17	7/3/17	0.7670500 USD/AUD	—	—
Australian Dollar	322	6/30/17	7/5/17	0.7670430 USD/AUD	—	—
Chilean Peso	4,727	3/30/17	7/14/17	0.001504 USD/CLP	—	(11)
Chilean Peso	1,720	3/31/17	7/14/17	0.001504 USD/CLP	—	(10)
Danish Krone	13	6/29/17	7/3/17	0.1534020 USD/DKK	—	—
Danish Krone	6	6/30/17	7/5/17	0.1534110 USD/DKK	—	—
Euro	125	6/29/17	7/3/17	1.1405500 USD/EUR	—	—
Euro	48	6/30/17	7/5/17	1.1406090 USD/EUR	—	—
Euro	4	6/30/17	7/5/17	1.1406090 USD/EUR	—	—
Euro	6,562	5/11/17	8/10/17	1.142811 USD/EUR	—	(307)
Euro	11,070	6/16/17	8/10/17	1.142811 USD/EUR	—	(233)
Japanese Yen	136	6/28/17	7/3/17	0.0089000 USD/JPY	—	—
Japanese Yen	122	6/28/17	7/3/17	0.0089000 USD/JPY	—	—
Japanese Yen	258	6/29/17	7/5/17	0.0089000 USD/JPY	—	(1)
Japanese Yen	64	6/29/17	7/5/17	0.0089000 USD/JPY	—	—
Japanese Yen	245	6/30/17	7/5/17	0.0089000 USD/JPY	—	—
Japanese Yen	91	6/30/17	7/5/17	0.0089000 USD/JPY	—	—
Japanese Yen	16,053	6/16/17	8/2/17	0.008911 USD/JPY	200	—
Pound Sterling	112	6/30/17	7/3/17	1.2989500 USD/GBP	—	—
Pound Sterling	56	6/30/17	7/5/17	1.298993 USD/GBP	—	—
South African Rand	985	6/29/17	7/5/17	0.076308 USD/ZAR	8	—
Swiss Franc	160	6/29/17	7/3/17	1.0442230 USD/CHF	—	—
Swiss Franc	125	6/30/17	7/5/17	1.044287 USD/CHF	—	—
Totals					\$2,660	\$(893)

NOTE 4 – FAIR VALUE MEASUREMENTS OF INVESTMENTS

In accordance with GASB 72, except for investments measured using NAV as a practical expedient to estimate fair value, the System categorizes the fair value measurements of its investments within the fair value hierarchy established by U.S. GAAP. The fair value hierarchy categorizes the inputs to valuation techniques used for fair value measurement into three levels as follows:

- Level 1 – Inputs that reflect quoted prices (unadjusted) in active markets for identical assets or liabilities that the fund has the ability to access at the measurement date. Most of the System’s directly held marketable equity securities would be examples of Level 1 investments.
- Level 2 – Inputs other than quoted prices that are observable for an asset of liability either directly or indirectly, including inputs in markets that are not considered to be active. Because they must often be priced on the basis of transactions involving similar but not identical securities or do not trade with sufficient frequency, certain directly held fixed income securities are categorized in Level 2.
- Level 3 – Unobservable inputs based on the best information available, using assumptions in determining the fair value of investments and derivative financial instruments. The System had no level 3 investments as of June 30, 2018 and 2017.

Investments are reported at fair value and categorized within the fair value hierarchy established by generally accepted accounting principles. The hierarchy is based on the valuation inputs used to measure the fair value of the asset and give the highest priority to unadjusted quoted prices in active markets for identical assets or liabilities (level 1) and the lowest priority to unobservable inputs (level 3).

- Level 1 — Unadjusted quoted prices for identical instruments in active markets.
- Level 2 — Quoted prices for similar instruments in active markets; quoted prices for identical or similar instruments in markets that are not active; and model-derived valuations in which all significant inputs are observable.
- Level 3 — Valuations derived from valuation techniques in which significant inputs are unobservable.

Investments that are measured at fair value using the net asset value (NAV) as a practical expedient are not classified in the fair value hierarchy. At June 30, 2018 and 2017 the System had no plans or intentions to sell investments at amounts different from NAV.

The categorization of investments within the hierarchy is based on the pricing transparency of the investment and should not be perceived as the particular investment’s risk.

Following is a summary of investments as of June 30, 2018 and 2017.

Investments at Fair Value	June 30, 2018					Unfunded Commitments
	Total	Fair Value Measurements Using			Net Asset Value (NAV)	
		Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)		
Fixed Income:						
U.S Government Obligations (1)	422,571	388,564	34,007	—	—	—
Domestic Fixed Income (2)	768,573	8,412	760,161	—	—	—
Commingled Funds (3)	436,075	—	—	—	436,075	—
International Fixed Income (4)	205,798	—	205,798	—	—	—
Equity:						
Domestic Equity Securities	2,815,885	2,812,581	3,304	—	—	—
Commingled Funds (5)	700,413	—	—	—	700,413	—
International Equity Securities	720,590	720,590	—	—	—	—
Real Estate:						
Real Estate Funds (6)	805,153	—	—	—	805,153	154,796
Alternative Investments:						
Private Equity (7)	908,131	—	—	—	908,131	769,397
Private Debt (8)	514,942	—	—	—	514,942	321,082
Opportunistic (9)	210,634	—	—	—	210,634	—
Total Investments	\$8,508,765	\$3,930,147	\$1,003,270	\$ —	\$3,575,348	\$1,245,275

The System has \$244.1M of investments reported at amortized cost in accordance with GASB Statement No. 79. These investments are not subject to any limitations or restrictions on withdrawals.

- (1) Fiscal 2018 rates range from 0.125% to 6.000%, and maturities from 2018 to 2048. Fiscal 2017 rates range from 0.750% to 6.000%, and maturities from 2017 to 2046.
- (2) Fiscal 2018 rates range from 0.00% to 12.000%, and maturities from 2018 to 2059. Fiscal 2017 rates range from 0.000% to 11.000%, and maturities from 2017 to 2057.
- (3) This represents investments in two commingled fixed income funds that invest globally in both developed and emerging markets with investments consisting primarily of corporate bonds (investment grade and high yield), sovereign bonds and securitized bonds. These funds may also invest in convertible bonds and currencies. The redemption frequency for these investments range from daily to monthly with one to 30 business days’ prior written notice.
- (4) Fiscal 2018 rates range from 0.000% to 10.600%, and maturities from 2018 to 2050. Fiscal 2017 rates range from 1.250% to 10.600%, and maturities from 2017 to 2064.
- (5) This represents investments in five commingled equity funds that invest primarily in common stock of companies located outside the U.S., including emerging markets. These investments have daily liquidity and require up to 10 business days’ notice for redemption.

- (6) This represents investments in 52 real estate vehicles consisting of 11 strategic open-end funds and 41 tactical non-core investments. Redemption from the open-end funds can be requested on a quarterly basis with 45-90 days' notice periods. The tactical non-core investments are not redeemable. NHRS has no direct property investments as of June 30, 2018.
- (7) This represents 32 investments in private partnerships focused primarily on the following strategies: buyouts, growth equity, secondaries and energy. These private partnerships typically have 10 to 15 year life cycles during which limited partners are unable to redeem their positions, but instead, receive distributions as the partnerships liquidate their underlying assets.
- (8) This represents 20 investments in private partnerships focused primarily on the following strategies: direct lending, mezzanine and distressed debt. These private partnerships typically have 6 to 10 year life cycles during which limited partners are unable to redeem their positions, but instead, receive distributions from coupon payments and/or as the partnerships liquidate their underlying asset.
- (9) AberdeenStandard Investments GARS is held within the Opportunistic sleeve of the Alternative Investments asset allocation as it is an "unconstrained/go anywhere" manager that invests across various geographies and asset classes including equity, credit, interest rates, currencies and real estate. This manager invests on an opportunistic basis to take advantage of market dislocations. This investment has monthly liquidity and requires 5 business day's notice for redemption.

June 30, 2017						
Fair Value Measurements Using						
(in thousands)						
Investments at Fair Value	Total	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)	Net Asset Value (NAV)	Unfunded Commitments
Fixed Income:						
U.S Government Obligations (1)	\$ 393,641	\$ 363,018	\$ 30,623	\$ —	\$ —	\$ —
Domestic Fixed Income (2)	769,111	7,284	761,827	—	—	—
Commingled Funds (3)	434,245	—	—	—	434,245	—
International Fixed Income (4)	217,508	—	217,508	—	—	—
Equity:						
Domestic Equity Securities	2,802,758	2,799,295	3,463	—	—	—
Commingled Funds (5)	662,221	—	—	—	662,221	—
International Equity Securities	678,052	678,052	—	—	—	—
Real Estate:						
Real Estate Funds (6)	815,293	—	—	—	815,293	120,985
Alternative Investments:						
Private Equity (7)	612,575	—	—	—	612,575	687,797
Private Debt (8)	420,218	—	—	—	420,218	141,674
Opportunistic (9)	214,392	—	—	—	214,392	—
Total Investments	\$8,020,014	\$3,847,649	\$1,013,421	\$ —	\$3,158,944	\$950,456

The System has \$156.5M of investments reported at amortized cost in accordance with GASB Statement No. 79. These investments are not subject to any limitations or restrictions on withdrawals.

- (1) Fiscal 2017 rates range from 0.750% to 6.000%, and maturities from 2017 to 2046.
- (2) Fiscal 2017 rates range from 0.00% to 11.000%, and maturities from 2016 to 2057.
- (3) This represents investments in two commingled fixed income funds that invest globally in both developed and emerging markets with investments consisting primarily of corporate bonds (investment grade and high yield), sovereign bonds and securitized bonds. These funds may also invest in convertible bonds and currencies. The redemption frequency for these investments range from daily to monthly with one to 30 business days' prior written notice.
- (4) Fiscal 2017 rates range from 1.250% to 10.600%, and maturities from 2017 to 2064.
- (5) This represents investments in five commingled equity funds that invest primarily in common stock of companies located outside the U.S., including emerging markets. These investments have daily liquidity and require up to 10 business days' notice for redemption.
- (6) This represents investments in 45 real estate funds consisting of 10 strategic core open-end funds and 35 opportunistic/tactical non-core closed-end funds. The open-end funds can be redeemed on a quarterly basis with 45-90 days' notice periods. The closed-end funds are not redeemable. NHRS has no direct property investments as of June 30, 2017.
- (7) This represents 30 investments in private partnerships focused primarily on the following strategies: buyouts, growth equity, secondaries and energy. These private partnerships typically have 10 to 15 year life cycles during which limited partners are unable to redeem their positions, but instead, receive distributions as the partnerships liquidate their underlying assets.
- (8) This represents 16 investments in private partnerships focused primarily on the following strategies: direct lending, mezzanine and distressed debt. These private partnerships typically have 6 to 10 year life cycles during which limited partners are unable to redeem their positions, but instead, receive distributions from coupon payments and/or as the partnerships liquidate their underlying assets.
- (9) SLI GARS is held within the Opportunistic sleeve of the Alternative Investments asset allocation as SLI GARS is an "unconstrained/go anywhere" manager that invests across various geographies and asset classes including equity, credit, interest rates, currencies and real estate. This manager invests on an opportunistic basis to take advantage of market dislocations. This investment has monthly liquidity and requires 5 business day's notice for redemption.

NOTE 5 — NET LIABILITY OF EMPLOYERS — PENSION AND OPEB PLANS**PENSION**

The net pension liability of employers as of June 30 is shown below:

SCHEDULE OF NET PENSION LIABILITY OF EMPLOYERS

(\$ in thousands)

Fiscal Year Ended	(a) Total Pension Liability	(b) Plan Net Position	(c) Net Pension Liability (a-b)	(d) Plan Net Position as a % of Total Pension Liability (b/a)
6/30/2018	\$13,652,069	\$8,836,867	\$4,815,202	64.7%
6/30/2017	\$13,171,981	\$8,253,988	\$4,917,993	62.7%

ACTUARIAL ASSUMPTIONS

The total pension liability as of June 30, 2018 is based on an actuarial valuation performed as of June 30, 2017 rolled forward to June 30, 2018. The roll-forward procedure increases the June 30, 2017 total pension liability with normal cost and interest and decreases it with actual benefit payments and administrative expenses paid.

A single discount rate of 7.25% was used to measure the total pension liability. This single discount rate was based on the expected rate of return on pension plan investments of 7.25%, which is not reported net of the inflation assumption used to obtain the real weighted returns shown on pg. 45. The projection of cash flows 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 available to make all projected future benefit payments 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.

The following table provides the sensitivity of the net pension liability to changes in the discount rate. In particular, the table presents the plan's net pension liability, if it were calculated using a single discount rate that is one-percentage-point lower or one-percentage-point higher than the single discount rate:

SENSITIVITY OF THE NET PENSION LIABILITY TO THE SINGLE DISCOUNT RATE ASSUMPTION

(\$ in thousands)

Fiscal Year Ended	1% Decrease to 6.25%	Current Single Rate Assumption 7.25%	1% Increase to 8.25%
6/30/2018	\$6,406,666	\$4,815,202	\$3,481,507
6/30/2017	\$6,479,209	\$4,917,993	\$3,638,638

The June 30, 2017 actuarial valuation rolled forward to June 30, 2018 used the following actuarial assumptions:

Actuarial Cost Method	Entry age normal
Price Inflation	2.5% per year
Wage Inflation	3.25% per year
Salary Increases	5.6% average, including inflation
Investment Rate of Return	7.25% per year, net of investment expenses, including inflation
Retirement Age	Experience-based table of rates that is specific to the type of eligibility condition. Last updated for the 2015 valuation pursuant to an experience study of the period 2011–2015.
Mortality	RP-2014 mortality tables, generationally projected with Scale MP-2015.

OPEB

The net OPEB liability of employers as of June 30, 2018 and 2017 is shown below:

SCHEDULE OF NET OPEB LIABILITY OF EMPLOYERS				(\$ in thousands)
Fiscal Year Ended	(a) Total OPEB Liability	(b) Plan Net Position	(c) Net OPEB Liability (a-b)	(d) Plan Net Position as a % of Total Pension Liability (b/a)
6/30/18	\$495,154	\$37,308	\$457,846	7.5%
6/30/17	\$496,507	\$39,273	\$457,234	7.9%

ACTUARIAL ASSUMPTIONS

The total OPEB liability as of June 30, 2018 is based on an actuarial valuation performed as of June 30, 2017 rolled forward to June 30, 2018. The roll-forward procedure increases the June 30, 2017 total OPEB liability with normal cost and interest and decreases it with actual benefit payments and administrative expenses paid.

A single discount rate of 7.25% was used to measure the total OPEB liability. This single discount rate was based on the expected rate of return on OPEB plan investments of 7.25%, which is not reported net of the inflation assumption used to obtain the real weighted returns shown on pg. 45. The projections of cash flows used to determine this single discount rate assumed that employer contributions will be made under the current statutes RSA 100-A:16 and 100-A:53. Based on this assumption, the OPEB plan’s fiduciary net position was projected to be available to make all projected future benefit payments to current plan members. Therefore, the long-term expected rate of return on OPEB plan investments was applied to all period of projected benefit payments to determine the total OPEB liability.

The following table provides the sensitivity of the net OPEB liability to changes in the discount rate. In particular, the table presents the plan’s net OPEB liability, if it were calculated using a single discount rate that is one-percentage point lower or one-percentage point higher than the single discount rate.

GASB 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.

SENSITIVITY OF THE NET OPEB LIABILITY TO THE SINGLE DISCOUNT RATE ASSUMPTION				(\$ in thousands)
Fiscal Year Ended	1% Decrease to 6.25%	Current Single Rate Assumption 7.25%	1% Increase to 8.25%	
6/30/18	\$476,528	\$457,846	\$405,514	
6/30/17	\$497,607	\$457,234	\$422,254	

The June 30, 2017 actuarial valuation folled forward to June 30, 2018 used the following actuarial assumptions:

Actuarial Cost Method	Entry age normal
Price Inflation	2.5% per year
Wage Inflation	3.25% per year
Salary Increases	5.6% average, including inflation
Investment Rate of Return	7.25% net of OPEB plan investment expense, including inflation
Retirement Age	Experience-based table of rates that is specific to the type of eligibility condition. Last updated for the 2015 valuation pursuant to an experience study of the period 2010–2015.
Mortality	RP-2014 Healthy Annuitant and Employee generational mortality tables for males and females with creditable adjustments, adjusted for fully generational mortality improvements using Scale MP-2015, based on the last experience study.
Health Care Trend Rates	N/A — Benefits are fixed stipends
Aging Factors	N/A — Benefits are fixed stipends

The asset allocation is recommended by the Independent Investment Committee and approved by the Board of Trustees. Plan assets are managed on a total return basis with a long-term objective of achieving and maintaining a fully funded status for the benefits provided. The following table displays the approved asset allocation for 2018 and the geometric real rates of return for each asset class:

LONG-TERM EXPECTED REAL RATE OF RETURN

Asset Class	Target Allocation	Weighted Average Long-Term Expected Real Rate of Return*
		2018
Large Cap Equities	22.50%	4.25%
Small/Mid Cap Equities	7.50%	4.50%
Total Domestic Equity	30.00%	
Int'l Equities (unhedged)	13.00%	4.50%
Emerging Int'l Equities	7.00%	6.00%
Total International Equity	20.00%	
Core Bonds	4.50%	0.50%
Short Duration	2.50%	(0.25%)
Global Multi-Sector Fixed Income	11.00%	1.80%
Absolute Return Fixed Income	7.00%	1.14%
Total Fixed Income	25.00%	
Private Equity	5.00%	6.25%
Private Debt	5.00%	4.25%
Opportunistic	5.00%	2.15%
Total Alternative Investments	15.00%	
Real Estate	10.00%	3.25%
TOTAL	100.00%	

*Real rates of return are presented net of the inflation assumption, which was 3.25% for 2018.

NOTE 6—CONTRIBUTIONS

PENSION PLAN

As a condition of participation, members are required to contribute a set percentage of their salary to the Pension Plan. The percentage rates, as outlined below, are set by statute under RSA 100-A:16 and depend on the member's group affiliation.

RSA 100-A:16 outlines the employer contributions made to the Pension Plan. Employer contributions to the Pension Plan since fiscal year 2007 have been determined on an actuarial basis using the entry age normal cost method.

The annual covered payroll for the year ended June 30, 2018 is \$2,752.2 million and the annual covered payroll for the fiscal year ended June 30, 2017 was \$2,667.6 million.

The following tables show the percentages of gross payroll contributed by the State, other contributing employers, and members to the pension plan and the OPEB plan.

TOTAL CONTRIBUTION RATES — PENSION PLAN

Member Category	Member Normal Share	(FY 2018)			Member Normal Share	(FY 2017)		
		State	Employer Normal Share Local	Total		State	Employer Normal Share Local	Total
Employees								
State	7.00%	11.08%	—	11.08%	7.00%	10.86%	—	10.86%
Local	7.00%	—	11.08%	11.08%	7.00%	—	10.86%	10.86%
Teachers	7.00%	—	15.70%	15.70%	7.00%	—	12.72%	12.72%
Police Officers								
State	11.55%	25.33%	—	25.33%	11.55%	22.54%	—	22.54%
Local	11.55%	—	25.33%	25.33%	11.55%	—	22.54%	22.54%
Firefighters								
State	11.80%	27.79%	—	27.79%	11.80%	25.32%	—	25.32%
Local	11.80%	—	27.79%	27.79%	11.80%	—	25.32%	25.32%

OPEB PLAN

In accordance with RSA 100-A:53, RSA 100-A:53-b, RSA 100-A:53-c and RSA 100-A:53-d, benefits are provided by a 401(h) subtrust of the Pension Plan.

The OPEB Plan is funded by allocating to the 401(h) subtrust the lesser of:

- a.) 25% of all employer contributions made in accordance with RSA 100-A:16; or
- b.) the percentage of employer contributions determined by the actuary to be the minimum rate necessary to maintain the benefits provided under RSA 100-A:53, RSA 100-A:53-b, RSA 100-A:53-c and RSA 100-A:53-d.

For fiscal year 2018 and 2017, the minimum rates determined by the actuary to maintain benefits were the lesser of the two options and were used to determine the employer contributions due to the 401(h) subtrust.

The State Legislature has the authority to establish, amend and discontinue the contribution requirements of the OPEB Plan. Administrative costs are allocated to the OPEB Plan based on fund balances.

TOTAL CONTRIBUTION RATES – OPEB PLAN

Member Category	Member Normal Share	(FY 2018)			Member Normal Share	(FY 2017)		
		State	Employer Normal Share Local	Total		State	Employer Normal Share Local	Total
Employees								
State	—	1.07%	—	1.07%	—	1.64%	—	1.64%
Local	—	—	0.30%	0.30%	—	—	0.31%	0.31%
Teachers	—	—	1.66%	1.66%	—	—	2.95%	2.95%
Police Officers								
State	—	4.10%	—	4.10%	—	3.84%	—	3.84%
Local	—	—	4.10%	4.10%	—	—	3.84%	3.84%
Firefighters								
State	—	4.10%	—	4.10%	—	3.84%	—	3.84%
Local	—	—	4.10%	4.10%	—	—	3.84%	3.84%

The following tables show the amounts contributed by participating employers and members and these contributions expressed as a percentage of the respective covered payrolls.

TOTAL AMOUNTS CONTRIBUTED – PENSION AND OPEB PLAN (in thousands)

Member Category	Member Normal Share**	(FY 2018)			Member Normal Share**	(FY 2017)		
		Pension Plan*	Employer Normal Share OPEB Plan*	Total Contributions		Pension Plan*	Employer Normal Share OPEB Plan*	Total Contributions
Employees	\$ 87,103	\$134,583	\$ 7,924	\$229,610	\$ 85,393	\$129,027	\$10,919	\$225,339
Teachers	79,338	174,223	18,441	272,002	77,957	138,575	32,030	248,562
Police Officers	35,913	77,547	12,539	125,999	34,748	66,926	11,407	113,081
Firefighters	15,218	35,807	5,290	56,315	14,963	31,959	4,841	51,763
Total Contributed	\$217,572	\$422,160	\$44,194	\$683,926	\$213,061	\$366,487	\$59,197	\$638,745

*Includes contributions made by both State and local employers
 **Includes voluntary member contributions of \$4.4 million in FY 2018 and \$4.5 million in FY 2017.
 Amounts shown on the table above exclude contributions classified as “employer other,” which are not actuarially determined contributions.

TOTAL AMOUNTS CONTRIBUTED EXPRESSED AS A PERCENTAGE OF COVERED PAYROLL FOR PENSION AND OPEB PLANS

Member Category	Member Normal Share**	(FY 2018)			Member Normal Share	(FY 2017)		
		Pension Plan*	Employer Normal Share OPEB Plan*	Total Contributions		Pension Plan*	Employer Normal Share OPEB Plan*	Total Contributions
Employees	7.23%	11.17%	0.66%	19.05%	7.24%	10.94%	0.93%	19.10%
Teachers	7.11%	15.61%	1.65%	24.37%	7.26%	12.91%	2.98%	23.16%
Police Officers	11.88%	25.66%	4.15%	41.69%	11.94%	23.00%	3.92%	38.68%
Firefighters	11.82%	27.82%	4.11%	43.76%	12.10%	25.85%	3.91%	41.86%
Total Contributed	7.91%	15.34%	1.61%	24.85%	7.99%	13.74%	2.22%	23.94%

As a matter of practice, actual contribution rates are determined by the previous valuation. Using the forecast rates delays implementation of the rates proposed by the actuary until the beginning of the subsequent biennium, allowing employers to budget for changes in employer rates. The employer normal contribution rates for fiscal year 2018 was based on the

June 30, 2015 actuarial valuation and the employer normal contribution rates for the fiscal year 2017 was based on the June 30, 2013 actuarial valuation.

NOTE 7 — ADMINISTRATIVE EXPENSES

Certain expenses related to the administration of the Plans are budgeted and approved by the Board of Trustees, and were subject to appropriation biennially by the State Legislature. Total administrative expenses of \$7.8 million and \$7.7 million for June 30, 2018 and 2017, respectively, are included in the accompanying Combining Statements of Changes in Fiduciary Net Position.

Administrative expenses consist primarily of salaries and benefits for 58 full-time and part-time employees, the costs associated with operating and maintaining computer systems, and other administrative costs.

NOTE 8 — CONTINGENT MATTERS

The System may have legal matters or claims that arise from time to time through the normal course of business. However, in the opinion of management and legal counsel, such matters are not expected to have an adverse effect on NHRS's financial status.

NOTE 9 — PENSION RESERVES

In accordance with RSA 100-A:16, all assets are credited between two funds in accordance with the purpose that they are held (in thousands):

Member Annuity Savings Fund — The member annuity savings fund is an accumulation of contributions deducted from the compensation of members. This fund is used to pay the accumulated member contributions in the event that a member withdraws from active service or upon death in service. Upon retirement, these contributions are transferred to the state annuity accumulation fund. The balance in this fund at June 30, 2018 is \$3,147,752.

State Annuity Accumulation Fund — The state annuity accumulation fund is the fund that pays all System benefits other than those payable from the member annuity savings fund. This fund is the accumulation of employer contributions and any amounts transferred from the member annuity savings fund. The balance in this fund at June 30, 2018 is \$5,689,115.

**REQUIRED SUPPLEMENTARY
INFORMATION (UNAUDITED)**

**SCHEDULE OF CHANGES IN THE EMPLOYERS' NET PENSION LIABILITY
AND RELATED RATIOS**

(\$ in thousands)

Fiscal Year Ended	June 30, 2018	June 30, 2017	June 30, 2016	June 30, 2015	June 30, 2014
Total Pension Liability					
Service Cost	\$ 269,751	\$ 262,626	\$ 266,379	\$ 243,965	\$ 245,828
Interest on the Total Pension Liability	936,988	906,201	875,247	847,646	815,214
Benefit Changes	—	—	—	—	—
Difference Between Expected and Actual Experience of the Total Pension Liability	39,112	(19,047)	18,404	(106,715)	—
Assumption Changes	—	—	815,023	—	—
Benefit Payments	(741,753)	(706,304)	(670,360)	(631,312)	(599,476)
Refunds	(24,010)	(23,408)	(24,233)	(26,345)	(26,120)
Net Changes in Total Pension Liability	480,088	420,068	1,280,460	327,239	435,446
Total Pension Liability — Beginning	13,171,981	12,751,913	11,471,453	11,144,214	10,708,768
Total Pension Liability — Ending	\$13,652,069	\$13,171,981	\$12,751,913	\$11,471,453	\$11,144,214
Plan Fiduciary Net Position					
Contributions — Employer	\$ 422,659	\$ 366,653	\$ 357,482	\$ 332,294	\$ 328,444
Contributions — Member	217,572	213,061	207,949	204,063	199,033
Pension Plan Net Investment Income	717,090	978,594	61,878	249,806	1,092,586
Benefit Payments	(741,753)	(706,304)	(670,360)	(631,312)	(599,476)
Refunds	(24,010)	(23,408)	(24,233)	(26,345)	(26,120)
Pension Plan Administrative Expense	(7,767)	(7,671)	(7,061)	(7,582)	(7,377)
Other Custodial, Professional and Non-Investment Expenses	(912)	(1,255)	(1,263)	(1,626)	(1,446)
Net Change in Plan Fiduciary Net Position	582,879	819,670	(75,608)	119,298	985,644
Plan Fiduciary Net Position — Beginning	8,253,988	7,434,318	7,509,926	7,390,628	6,404,984
Plan Fiduciary Net Position — Ending	\$ 8,836,867	\$8,253,988	\$ 7,434,318	\$ 7,509,926	\$ 7,390,628
Net Pension Liability					
Plan Fiduciary Net Position as a Percentage of Total Pension Liability	64.7%	62.7%	58.3%	65.5%	66.3%
Covered Payroll	\$ 2,752,235	\$2,667,612	\$ 2,601,404	\$ 2,575,031	\$ 2,507,899
Net Pension Liability as a Percentage of Covered Payroll	175.0%	184.4%	204.4%	153.8%	149.7%

Schedule is intended to show information for 10 years. GASB 67 was adopted in 2014, and additional years will be added as they become available.

SCHEDULE OF EMPLOYER CONTRIBUTIONS — PENSION PLAN

(\$ in thousands)

Fiscal Year Ended	Actuarially Determined Contribution	Actual Contribution	Contribution Deficiency (Excess)	Covered Payroll	Actual Contribution as a % of Covered Payroll
6/30/2018	\$422,659	\$422,659	—	\$2,752,235	15.4%
6/30/2017	\$366,653	\$366,653	—	\$2,667,612	13.7%
6/30/2016	\$357,482	\$357,482	—	\$2,601,404	13.7%
6/30/2015	\$332,294	\$332,294	—	\$2,575,031	12.9%
6/30/2014	\$328,444	\$328,444	—	\$2,507,899	13.1%
6/30/2013	\$249,836	\$249,836	—	\$2,501,742	10.0%
6/30/2012	\$254,557	\$254,557	—	\$2,487,757	10.2%
6/30/2011	\$274,582	\$274,582	—	\$2,517,779	10.9%
6/30/2010	\$269,677	\$269,677	—	\$2,481,384	10.9%
6/30/2009	\$261,230	\$261,230	—	\$2,448,287	10.7%

SCHEDULE OF CHANGES IN THE EMPLOYERS' NET OPEB LIABILITY AND RELATED RATIOS

(\$ in thousands)

Fiscal Year Ended	June 30, 2018	June 30, 2017	June 30, 2016
Total OPEB Liability			
Service Cost	\$ 984	\$ 1,099	\$ 1,218
Interest on the Total OPEB Liability	34,247	35,235	36,542
Benefit Changes	—	—	—
Difference between expected and actual experience of the Total OPEB Liability	12,667	—	(4,538)
Assumption Changes	—	—	—
Benefit Payments	(49,251)	(50,560)	(51,805)
Refunds	—	—	—
Net Changes in Total OPEB Liability	(1,353)	(14,226)	(18,583)
Total OPEB Liability — Beginning	496,507	510,733	529,316
Total OPEB Liability — Ending	\$495,154	\$496,507	\$510,733
Plan Fiduciary Net Position			
Contributions — Employer	\$ 44,194	\$59,197	\$58,174
Contributions — Member	—	—	—
OPEB Plan Net Investment Income	3,129	4,046	149
Benefit Payments	(49,251)	(50,560)	(51,805)
Refunds	—	—	—
OPEB Plan Administrative Expense	(33)	(32)	(17)
Other custodial, professional and non-investment expenses	(4)	(5)	(3)
Net Change in Plan Fiduciary Net Position	(1,965)	12,646	6,498
Plan Fiduciary Net Position — Beginning	39,273	26,627	20,129
Plan Fiduciary Net Position — Ending	\$ 37,308	\$39,273	\$26,627
Net OPEB Liability	\$457,846	\$457,234	\$484,106
Plan Fiduciary Net Position as a Percentage of Total OPEB Liability	7.5%	7.9%	5.2%
Covered Payroll*	\$2,752,235	\$2,667,612	\$2,601,404
Net OPEB Liability as a Percentage of Covered Payroll	16.7%	17.1%	18.6%

Schedule is intended to show information for 10 years. GASB 74 was adopted in 2017, and additional years will be added as they become available.

*Employers calculate and remit contributions to the OPEB plan based on the covered payroll of the pension plan, even though not all employees in the covered payroll presented are provided with OPEB through the OPEB plan.

SCHEDULE OF EMPLOYER CONTRIBUTIONS — OPEB PLAN

(\$ in thousands)

Fiscal Year Ended	Actuarially Determined Contribution	Actual Contribution	Contribution Deficiency (Excess)	Covered Payroll	Actual Contribution as a % of Covered Payroll
6/30/18	\$44,194	\$44,194	—	\$2,752,235	1.6%
6/30/17	\$59,197	\$59,197	—	\$2,667,612	2.2%
6/30/16	\$58,174	\$58,174	—	\$2,601,404	2.2%
6/30/15	\$48,915	\$48,915	—	\$2,575,031	1.9%
6/30/14	\$48,881	\$48,881	—	\$2,507,899	1.9%
6/30/13	\$49,712	\$49,712	—	\$2,501,742	2.0%
6/30/12	\$48,964	\$48,964	—	\$2,487,757	2.0%
6/30/11	\$32,901	\$32,560	—	\$2,517,779	1.3%
6/30/10	\$32,560	\$32,560	—	\$2,481,384	1.3%
6/30/09	\$65,236	\$65,236	—	\$2,448,287	2.7%

SCHEDULE OF INVESTMENT RETURNS

Fiscal Year Ended	Annual Money Weighted Rate of Return — Net of Investment Expenses
6/30/2018	8.9%
6/30/2017	13.4%
6/30/2016	0.9%
6/30/2015	3.4%
6/30/2014	17.6%

Schedule is intended to show information for 10 years. Additional years will be added as they become available. See accompanying notes to the required supplementary information and independent auditor's report.

NOTES TO REQUIRED SUPPLEMENTARY INFORMATION – LAST TEN FISCAL YEARS

ACTUARIAL ASSUMPTIONS AND METHODS USED IN DETERMINING CONTRIBUTION RATES

Actuarially determined contribution rates are calculated by the system's actuary and certified by the Board of Trustees biennially. Contribution rates for FY 2018 were determined by the System's actuary based on the June 30, 2015 actuarial valuation. Significant actuarial assumptions and methods used to determine contribution rates for both the Pension and OPEB plan are described below:

PENSION PLAN

- **Actuarial Cost Method** Entry Age Normal
- **Amortization Method** Level percentage of payroll, closed
- **Remaining Amortization** 21 years beginning July 1, 2018 (30 years beginning July 1, 2009)
- **Asset Valuation Method** Five-year smoothed market, 20% corridor
- **Payroll Growth** 3.25%
- **Price Inflation** 2.50%
- **Salary Increase** 5.6% average, including price inflation
- **Investment Rate of Return** 7.25%, net of pension plan investment expenses, including inflation
- **Mortality** RP 2014 Healthy Annuitant and Employee generational mortality tables for males and females with credibility adjustments, adjusted for fully generational mortality improvements using Scale MP-2015, based on the last experience study

OPEB PLAN

- **Actuarial Cost Method** Entry Age Normal
- **Amortization Method** Level percentage of payroll, closed
- **Asset Valuation Method** Five-year smoothed market, 20% corridor
- **Payroll Growth** 3.25%
- **Inflation** 2.50%
- **Salary Increase** 5.6% average, including price inflation
- **Investment Rate of Return** 7.25% per year, net of OPEB plan investment expense, including inflation for determining solvency contributions
- **Funding Discount Rate** 3.25% per year
- **Mortality** RP 2014 Healthy Annuitant and Employee generational mortality tables for males and females with credibility adjustments, adjusted for fully generational mortality improvements using Scale MP-2015, based on the last experience study

CHANGES OF BENEFIT TERMS

None

CHANGES OF ASSUMPTIONS

An actuarial review, commonly called an experience study, of the mortality, service, withdrawals, and compensation experience of members is required by statute at least once during each five-year period. The last actuarial review was performed during fiscal year 2016 and was based on the information available as of June 30, 2015.

Assumption changes adopted as a results of the 2015 experience study are:

Economic Assumptions:

- The assumed investment rate of return was reduced from 7.75% to 7.25%
- The wage inflation rate was reduced from 3.75% to 3.25%
- The price inflation assumption was reduced from 3.00% to 2.50%

Demographic Assumptions were changed in the following categories:

- Rates of Disability
- Rates of Retirement
- Rates of Withdrawal
- Mortality

The full experience study results can be viewed at www.nhrs.org/docs/default-source/actuarial/july-1-2010---june-30-2015-experience-study.pdf

2018:

- The payroll growth assumption for the Teacher group was reduced to 2.75%.
- Future actuarial gains or losses on or after July 1, 2017 to be amortized for consecutive closed fixed periods of no longer than 20 years.

SUPPORTING SCHEDULES

INVESTMENT ACTIVITY FEES AND OTHER INVESTMENT RELATED EXPENSES

(in thousands)

	YEAR ENDED JUNE 30	
	2018	2017
INVESTMENT ACTIVITY FEES:		
Equity Investments:		
Domestic	\$ 9,435	\$ 8,669
Non-U.S.	10,630	8,790
Fixed Income Investments	4,371	4,211
Real Estate	2,126	1,965
Custodial Fees	633	614
Investment Advisor Fees	750	740
Investment Professional Fees	288	349
Investment Staff Administrative Expense	645	627
TOTAL INVESTMENT ACTIVITY FEES	\$ 28,878	\$ 25,965

INTEREST INCOME

(in thousands)

	YEAR ENDED JUNE 30	
	2018	2017
Fixed Income Investments	\$ 53,201	\$ 54,024
Cash and Cash Equivalents	1,409	1,409
TOTAL INTEREST INCOME	\$ 54,610	\$ 55,433

DIVIDEND INCOME

(in thousands)

	YEAR ENDED JUNE 30	
	2018	2017
Equity Investments:		
Domestic	\$ 46,894	\$ 48,113
Non-U.S.	27,001	25,374
TOTAL DIVIDEND INCOME	\$ 73,895	\$ 73,487

CONTRIBUTIONS	(in thousands)	
	YEAR ENDED JUNE 30	
	2018	2017
CONTRIBUTIONS—PENSION PLAN		
EMPLOYER CONTRIBUTIONS:		
Employees	\$ 134,713	\$ 129,110
Teachers	174,562	138,646
Police Officers	77,571	66,930
Firefighters	35,812	31,960
Other	1	7
TOTAL EMPLOYER CONTRIBUTIONS	\$ 422,659	\$ 366,653
PLAN MEMBER CONTRIBUTIONS:		
Employees	\$ 87,103	85,393
Teachers	79,338	77,957
Police Officers	35,913	34,748
Firefighters	15,218	14,963
TOTAL PLAN MEMBER CONTRIBUTIONS	\$ 217,572	\$ 213,061
TOTAL CONTRIBUTIONS—PENSION PLAN	\$ 640,231	\$ 579,714
CONTRIBUTIONS — OPEB PLAN		
EMPLOYER NORMAL:		
OPEB Contributions	\$ 44,194	\$ 59,197
TOTAL CONTRIBUTIONS — OPEB PLAN	\$ 44,194	\$ 59,197
TOTAL CONTRIBUTIONS	\$ 684,425	\$ 638,911

BENEFITS	(in thousands)	
	YEAR ENDED JUNE 30	
	2018	2017
PENSION BENEFITS AND ADDITIONAL ALLOWANCES:		
Employees	\$ 245,720	\$ 233,413
Teachers	293,371	278,469
Police Officers	138,186	131,767
Firefighters	64,476	62,655
TOTAL PENSION BENEFITS AND ADDITIONAL ALLOWANCES	\$ 741,753	\$ 706,304
POSTEMPLOYMENT MEDICAL BENEFITS:		
Group II Police and Fire	\$ 16,675	16,837
Group I Teachers	20,366	20,923
Group I Political Subdivision Employees	5,139	5,344
Group I State Employees	7,071	7,456
TOTAL POSTEMPLOYMENT MEDICAL BENEFITS	\$ 49,251	\$ 50,560
TOTAL BENEFITS	\$ 791,004	\$ 756,864

REFUNDS OF CONTRIBUTIONS	(in thousands)	
	YEAR ENDED JUNE 30	
	2018	2017
Employees	\$ 13,502	\$ 12,890
Teachers	6,271	5,927
Police Officers	3,841	3,638
Firefighters	396	953
TOTAL REFUNDS OF CONTRIBUTIONS	\$ 24,010	\$ 23,408

**ADMINISTRATIVE EXPENSE FOR THE YEARS ENDED
JUNE 30, 2018 AND 2017**

(in thousands)

	2018 EXPENSE	UNAUDITED 2018 BUDGET*	UNAUDITED OVER (UNDER) BUDGET	2017 EXPENSE	UNAUDITED 2017 BUDGET*	UNAUDITED OVER (UNDER) BUDGET
Salaries and Wages	\$ 3,905	\$ 3,724	\$ 181	\$ 3,697	\$ 4,156	\$ (459)
Fringe Benefits	1,920	1,948	(28)	1,942	2,576	(634)
Supplies, Utilities and Postage	256	224	32	226	334	(108)
Organizational Dues	16	17	(1)	6	20	(14)
Equipment	5	3	2	5	5	—
Travel — Staff	20	17	3	18	46	(28)
Board Expenses	17	17	—	15	39	(24)
Employee Training	34	34	—	35	84	(49)
State Services	17	17	—	14	34	(20)
Office Rents and Expenses	542	541	1	491	513	(22)
Computer Support and System Development	896	762	134	1,059	1,268	(209)
Consulting	167	234	(67)	180	174	6
Workers Compensation	—	—	—	—	10	(10)
Unemployment Compensation	5	4	1	15	15	—
TOTAL	\$ 7,800	\$ 7,542	\$ 258	\$ 7,703	\$ 9,274	\$(1,571)

*The New Hampshire biennial budget is composed of the initial operating budget and supplemented by additional appropriations. These appropriations are generated by annual session laws, and existing statutes which require appropriations under certain circumstances. The budget therefore is a flexible budget. It is a biennial budget which consists of balances brought forward plus current year appropriations, less balances carried forward into the following fiscal year. The balances carried forward into the following fiscal year are composed of encumbrances and non-lapsing appropriations.

PROFESSIONAL FEES

(in thousands)

	YEAR ENDED JUNE 30	
	2018	2017
Legal Fees	\$ 153	\$ 148
Actuarial Fees	232	212
Audit Fees	305	287
TOTAL PROFESSIONAL FEES	\$ 690	\$ 647

INVESTMENT section



Investment income has historically provided the majority of the funding for pension benefits. Over the past 25 years, NHRS investments have achieved an average annual return of 8.0 percent.

INVESTMENT CONSULTANT'S LETTER



NEPC, LLC

KEVIN M. LEONARD
SENIOR CONSULTANT

October 5, 2018 Board of Trustees

Investment Committee
Executive Director
The New Hampshire Retirement System
54 Regional Drive
Concord, NH 03301-8507 Dear NHRS Fiduciaries:

Dear NHRS Fiduciaries:

NEPC, LLC (NEPC) is pleased to introduce this overview of the New Hampshire Retirement System (NHRS) investment program for the fiscal year ended June 30, 2018.

The overall objective of NHRS is to provide service, disability, death and vested retirement benefits, and other postemployment benefits to members and their beneficiaries. To ensure a solid foundation for the future of the System, NHRS plans and implements an investment program designed to achieve the maximum rate of return over the long term, while prudently managing the risk of the portfolio. Additionally, the NHRS investment program is administered in accordance with sound governance practices and applicable statutes. The Board of Trustees (Trustees) established an Investment Policy which includes asset allocation targets and acceptable ranges as well as asset class benchmarks for performance measurement. The Trustees retain the services of actuaries and consultants to provide guidance regarding actuarial matters, asset allocation, and investment policy. The Independent Investment Committee (Committee) manages the investment program pursuant to the investment policy, develops asset class guidelines, monitors and evaluates performance, and makes determinations regarding the retention of managers. Professional investment managers are selected by the Committee to manage portfolios in accordance with investment management agreements. The investment manual includes all investment policies and asset class guidelines and may be obtained from the NHRS website at www.nhrs.org. The following pages report on the performance and attributes of the investment program for fiscal year 2018.

The U.S. economy continued its near historically long growth streak as the Federal Reserve Bank maintained its path of methodically tightening monetary policy through increasing interest rates while the Tax Cuts and Jobs Act of 2017 provided fiscal stimulus and expectations of further economic growth. Global capital markets continued to be largely driven by accommodative Central Bank policy in addition to Central Bankers indicating that stimulative monetary policy may persist into 2019 and perhaps beyond. U.S. Equities, as a result, posted their ninth consecutive year of positive returns and outperformed international equities. Volatile global markets became a mainstay in the year ending June 30, 2018 as concerns over anti-establishment political change, historically low and broadly negative real interest rates and fears over U.S. trade policy caused uncertainty to enter into investor sentiment. Uncertainty related to these risks was reflected in market volatility, yet these risks were largely shrugged off by markets, resulting in U.S. equities posting a robust 14.4% return as measured by the S&P 500 Index. International developed-markets equities performed well but underperformed domestic equities by 7.6% as measured by the MSCI EAFE Index. Underperformance in international developed-markets was driven by political and economic growth uncertainty in Europe. Emerging markets equities underperformed U.S. and outperformed developed-international equities though volatility saw an uptick toward the end of the year as markets reacted to U.S. Dollar strength and trade policy uncertainty. Driven by increasing interest rates, U.S. high quality fixed income investments produced a negative return for the second consecutive year, returning -0.4% as measured by the Bloomberg Barclays U.S. Aggregate Bond Index.

For the fiscal year ended June 30, 2018, the NHRS Total Fund returned +8.9% on a net-of-fees basis, outperforming the Total Fund custom benchmark return of +7.8% and ranking in the 20th percentile (1% being the highest, 100% being the lowest) relative to other investors in the InvestorForce Public Defined Benefit Net Universe (universe). During the following periods the NHRS Total Fund provided strong annualized net-of-fees returns relative to the universe: For the trailing three years ending June 30, 2018, the NHRS Total Fund return of +7.7% ranked in the 8th percentile of the universe; For the trailing five years ending June 30, 2018 the NHRS Total Fund return of +8.7% ranked in the 7th percentile of the universe;

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For the trailing ten year period ending June 30, 2018, the NHRS Total Fund returned +7.1% and ranked in the 12th percentile of the universe; For the trailing twenty-five year period ending June 30, 2018, the NHRS Total Fund returned +8.0%, exceeding the current assumed rate of return of 7.25%, and ranking in the 17th percentile of the universe. During fiscal year 2018, the Committee continued to implement the expansion of the alternative investment portfolio.

NEPC provides NHRS with quarterly economic and investment market updates and performance reviews, investment manager monitoring and selection advice, and related investment services for traditional and non-traditional asset classes. Investment performance analysis and comparisons produced by NEPC have been calculated using standard performance evaluation methodologies and are consistent with industry standards. Performance results are calculated using a time-weighted return methodology and are reported on a net-of-fees basis.

Sincerely,

A handwritten signature in black ink, appearing to be 'L. M. L.', is written over a light gray rectangular background.

**INVESTMENT
REPORTS**

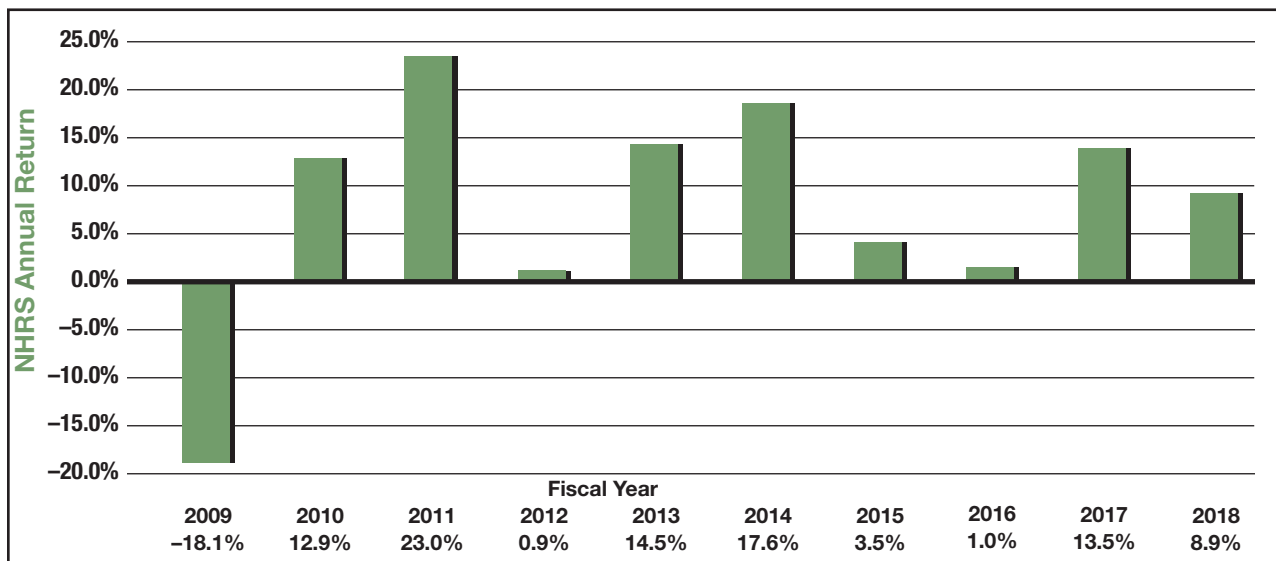
ANNUALIZED INVESTMENT RETURNS—ACTUAL VERSUS INDICES

	Current Year 2018	3 Year	Annualized 5 Year	10 Year
Total NHRS Fund	8.9%	7.7%	8.7%	7.1%
Total Fund Custom Index*	7.8	7.3	8.8	7.2
Domestic Equity	14.6	11.0	12.7	9.6
Total Domestic Equity Blended Benchmark*	14.4	11.9	13.5	10.3
Non-U.S. Equity	7.8	6.1	6.0	3.3
Total Non-U.S. Equity Blended Benchmark*	7.3	5.1	6.0	2.5
Fixed Income	0.2	2.8	2.9	5.1
Total Fixed Income Blended Benchmark*	-0.3	2.1	2.6	4.1
Real Estate	10.5	11.1	12.7	6.1
Total Real Estate Blended Benchmark*	7.5	8.4	10.1	6.6
Alternative Investments	10.9	8.4	8.5	3.1
Total Alternative Investments Blended Benchmark*	9.4	8.4	13.4	11.7
Cash Equivalents	1.4	0.8	0.5	0.4
90 Day T-Bills	1.4	0.7	0.4	0.3

Performance returns are calculated on a net-of-fees time-weighted rate of return basis.

*In a dynamic market, strategies and objectives evolve over time. Consequently, these benchmarks are blended due to historical investment strategy decisions. Detailed descriptions of the benchmarks above are available by contacting NHRS.

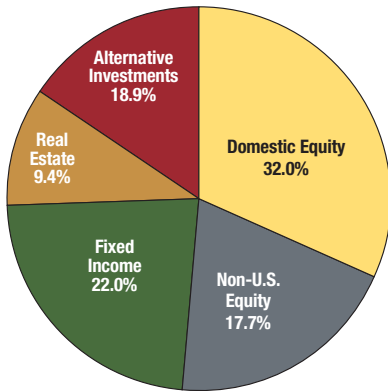
Ten Year History of Time-Weighted Total NHRS Fund Annual Returns



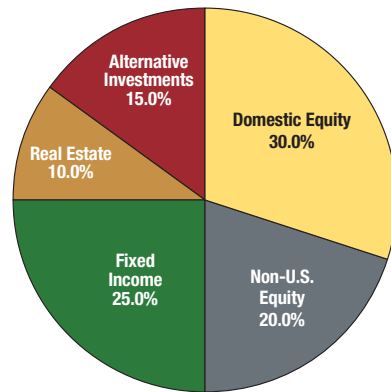
ACTUAL ASSET ALLOCATION VERSUS TARGET ASSET ALLOCATION

	Actual %	As of June 30, 2018	
		Target %	Target Range %
Domestic Equity	32.0%	30.0%	20 – 50
Non-U.S. Equity	17.7	20.0	15 – 25
Fixed Income	22.0	25.0	20 – 30
Real Estate	9.4	10.0	5 – 20
Alternative Investments	18.9	15.0	5 – 25
TOTAL FUND	100.0%	100.0%	

Actual Asset Allocation as of June 30, 2018



Target Asset Allocation as of June 30, 2018



TEN LARGEST STOCK HOLDINGS BY FAIR VALUE*

(in thousands)

	Shares	Stock	June 30, 2018 Fair Value
1	416,396	Microsoft Corp	\$41,061
2	210,915	Apple Inc	39,042
3	19,813	Amazon.com Inc	33,678
4	227,595	Johnson & Johnson	27,616
5	239,603	JPMorgan Chase & Co	24,967
6	556,307	Cisco Systems Inc	23,938
7	257,279	Exxon Mobil Corp	21,285
8	106,854	Mastercard Inc	20,999
9	86,232	Linde AG	20,579
10	18,441	Alphabet Inc	20,574

TEN LARGEST FIXED INCOME HOLDINGS BY FAIR VALUE*

(in thousands)

	Par**	Security	June 30, 2018 Fair Value
1	34,410,000	U.S. Treasury Note — Var Rate, 2019	\$34,442
2	23,361,000	U.S. Treasury Bond — 4.50%, 2036	28,564
3	26,897,000	U.S. Treasury Note — 1.750%, 2022	25,955
4	22,556,000	U.S. Treasury Note — 1.125%, 2021	21,491
5	15,275,000	United Kingdom Gilt Regs — 1.250%, 2018	20,175
6	20,000,000	U.S. Treasury Note — 0.750%, 2018	19,939
7	19,408,000	U.S. Treasury Bond — 3.000%, 2045	19,483
8	17,000,000	U.S. Treasury Note — 1.500%, 2019	16,929
9	305,000,000	Mexican Bonos — 7.750%, 2042	15,634
10	15,260,000	U.S. Treasury Note — Var Rate, 2019	15,273

*A complete listing of separate account portfolio holdings is available by contacting the NHRS offices. NHRS also invests in various commingled investment vehicles, for which the underlying investments are custodied outside of The Bank of NY Mellon (Master Custodian for NHRS), as reported on the Summary of Investments schedule.

**Par value is denoted in local currency.

SCHEDULE OF INVESTMENT MANAGEMENT AND SERVICE FEES

	YEAR ENDED JUNE 30, 2018		
	Assets Under Management (in thousands)	Fees (in thousands)	Average Basis Points
INVESTMENT MANAGEMENT FEES			
Equity Portfolios:			
Domestic	\$ 2,604,135	\$ 9,435	36
Non-U.S.	1,688,611	10,629	63
Fixed Income Portfolios	1,896,721	4,371	23
Alternative Investments*	1,633,707	—	—
Real Estate	813,001	2,126	26
Cash and Cash Equivalents**	155,057	—	—
TOTAL INVESTMENT MANAGEMENT FEES	\$ 8,791,232	\$ 26,561	30
INVESTMENT SERVICE FEES			
Custodial Fees	\$ 8,791,232	\$ 633	1
Investment Advisor Fees — External	8,791,232	750	1
Investment Professional Fees	8,791,232	288	1
Investment Administrative Expenses — Internal	8,791,232	645	1
TOTAL INVESTMENT MANAGEMENT AND SERVICE FEES	\$ 8,791,232	\$ 28,877	33

*The custodian records all transactions on a net of fee basis.

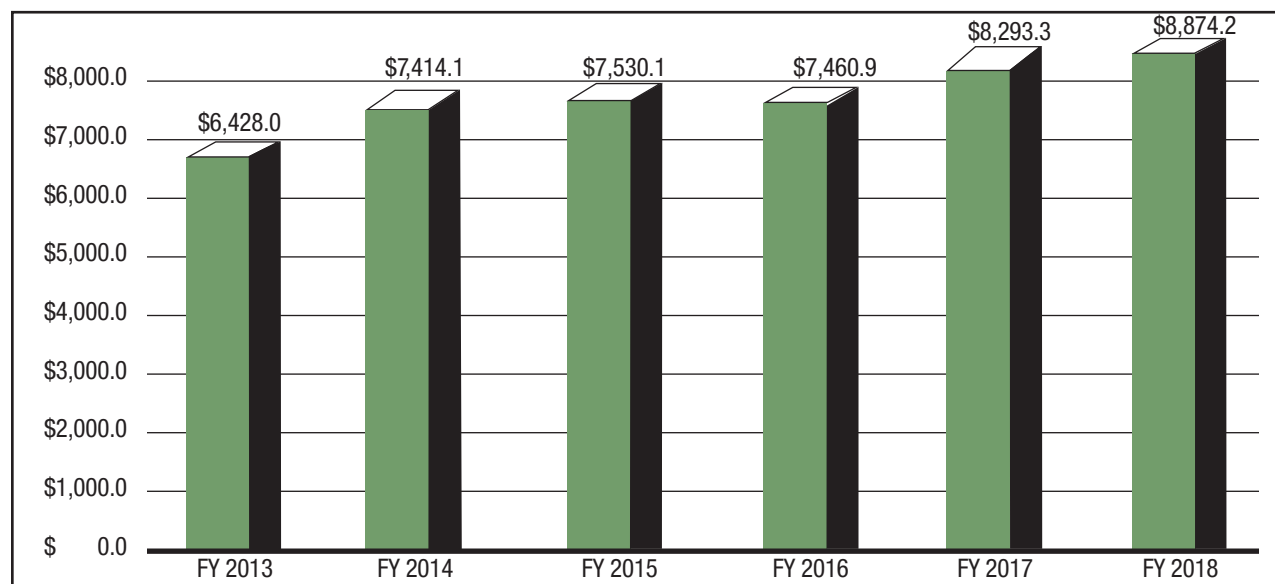
**Does not include cash and cash equivalents held in manager portfolios, only in designated cash portfolios.

SCHEDULE OF BROKERAGE COMMISSIONS PAID

Brokerage Firm	YEAR ENDED JUNE 30, 2018		
	Number of Shares Traded (in thousands)	Total Commissions (in thousands)	Commissions Per Share
Merrill Lynch & Company Inc.	7,244	\$ 123	0.02
Goldman Sachs & Company	8,519	121	0.01
Credit Suisse	4,956	78	0.02
UBS Securities/Warburg	5,336	75	0.01
J.P. Morgan	4,998	74	0.01
Morgan Stanley & Company Inc.	2,635	71	0.03
Liquidnet	4,339	69	0.02
Raymond James & Assoc., Inc.	1,985	59	0.03
Jefferies & Company, Inc.	2,361	56	0.02
Citigroup Global Markets Inc.	2,857	55	0.02
Investment Tech Group	3,487	54	0.02
Instinet, Inc.	3,550	48	0.01
Deutsche Bank	3,010	47	0.02
National Financial Services	1,989	46	0.02
Stifel Nicolaus	1,484	45	0.03
BTIG LLC	1,487	45	0.03
Bernstein Sanford C & Co, New York	2,962	41	0.01
RBC Capital Markets, LLC	2,491	40	0.02
Barclay's Capital Inc.	1,443	40	0.03
All Others (102 not listed separately)	26,589	594	0.02
TOTAL BROKERAGE COMMISSIONS PAID	93,722	\$ 1,781	0.02

Commission detail is not included in the schedule above for the commingled funds in which NHRS invests.

**Net Position Held In Trust For Benefits
(in millions)**



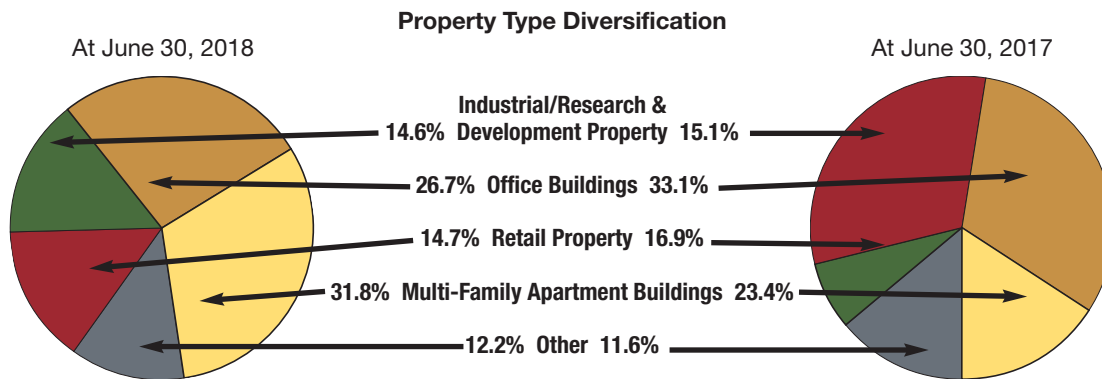
SUMMARY OF INVESTMENTS

TYPE OF INVESTMENT	June 30, 2018	
	Fair Value (in millions)	Percent of Total Fair Value
FIXED INCOME		
Collateralized/Asset Backed Securities	\$ 143.6	1.7%
Corporate Bonds	596.9	7.0%
Government and Agency Bonds	648.0	7.6%
Doubleline Capital Floating Rate Fund	5.6	0.1%
Doubleline Capital Global Bond	2.8	0.0%
GAM	225.3	2.6%
Manulife	210.8	2.5%
TOTAL FIXED INCOME	\$1,833.0	21.5%
EQUITY		
Consumer Discretionary	\$ 438.5	5.2%
Consumer Staples	182.3	2.1%
Energy	212.4	2.5%
Financial Services	794.1	9.3%
Health Care	480.1	5.6%
Producer Durables	464.3	5.5%
Information Technology	593.4	7.0%
Materials	206.6	2.4%
Utilities	154.6	1.8%
Aberdeen Emerging Markets Smaller Companies Fund	90.0	1.1%
Ishares Russell 2000 ETF	10.2	0.1%
Neuberger Berman Emerging Markets Equity Fund	132.0	1.6%
Segall Bryant & Hamill Int'l Small Cap	138.6	1.6%
Wellington Emerging Markets Local Equity Fund	115.5	1.4%
LSV International Value Fund	224.3	2.6%
TOTAL EQUITY	\$4,236.9	49.8%
OTHER INVESTMENTS		
Alternative Investments	\$1,633.7	19.2%
Real Estate	805.2	9.5%
TOTAL INVESTMENTS	\$8,508.8	100.0%

REAL ESTATE INVESTMENTS BY TYPE

(in thousands)

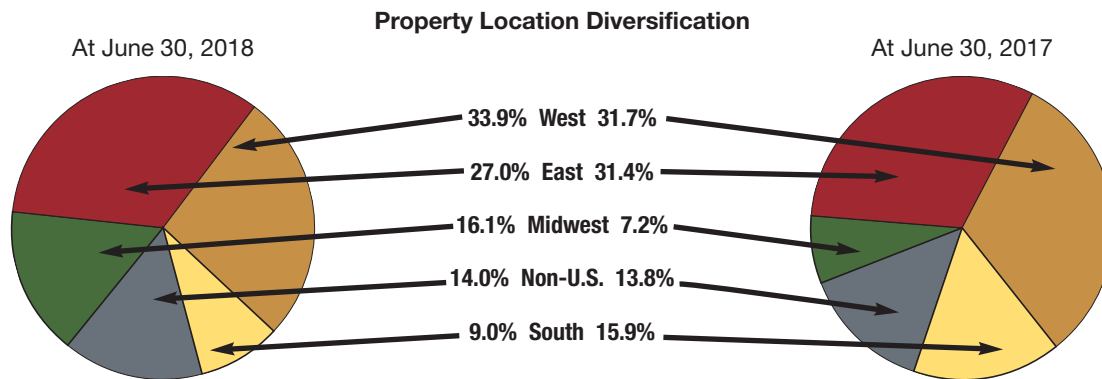
	JUNE 30	
	2018	2017
Office Buildings	\$214,958	\$269,092
Multi-Family Apartment Buildings	256,049	190,895
Retail Property	118,384	137,876
Industrial/Research & Development Property	117,304	122,874
Other	98,458	94,556
TOTAL REAL ESTATE INVESTMENTS BY TYPE	\$805,153	\$815,293



REAL ESTATE INVESTMENTS BY LOCATION

(in thousands)

	JUNE 30	
	2018	2017
West	\$272,907	\$258,571
East	217,758	255,846
South	72,085	129,972
Midwest	129,855	58,713
Non-U.S.	112,548	112,191
TOTAL REAL ESTATE INVESTMENTS BY LOCATION	\$805,153	\$815,293



ALTERNATIVE INVESTMENTS	(in thousands)	
	JUNE 30	
	2018	2017
Venture Capital	\$ 542	\$ 542
Growth Equity	241,182	167,507
Buyouts	343,444	204,243
Secondaries	183,679	135,696
Mezzanine	11,773	12,754
Distressed	224,615	194,416
Absolute Return Strategies	816	1,624
Opportunistic	210,634	214,392
Direct Lending Strategies	279,471	238,009
Energy	137,552	78,002
TOTAL ALTERNATIVE INVESTMENTS	\$1,633,708	\$1,247,185

NET APPRECIATION (DEPRECIATION) IN FAIR VALUE OF INVESTMENTS	(in thousands)	
	YEAR ENDED JUNE 30	
	2018	2017
Equity Investments:		
Domestic	\$ 321,900	\$ 406,326
Non-U.S.	108,512	251,669
Fixed Income Investments	(43,877)	21,840
Temporary Investments	6	11
Real Estate	47,951	51,650
Growth Equity	29,945	26,006
Buyouts	39,259	21,583
Secondaries	31,706	18,399
Mezzanine	(444)	(979)
Distressed	(1,067)	12,897
Absolute Return Strategies	(809)	(184)
Opportunistic	(4,308)	7,453
Direct Lending	8,289	29
Energy	22,549	18,735
TOTAL NET APPRECIATION (DEPRECIATION) IN FAIR VALUE OF INVESTMENTS	\$ 559,612	\$ 835,435

ALTERNATIVE INVESTMENT INCOME (LOSS) (in thousands)

	YEAR ENDED JUNE 30	
	2018	2017
Distressed	\$ 3,200	\$ 870
Secondaries	2,243	819
Direct Lending	18,069	22,399
Opportunistic	550	530
Energy	901	232
Mezzanine	845	1,301
Buyouts	1,530	582
Growth Equity	2,657	650
TOTAL ALTERNATIVE INVESTMENT INCOME*	\$ 29,995	\$ 27,383

*Other alternative investment types not listed above had no income (loss) for either of the years reported. For a complete list of alternative investment types see page 70.

REAL ESTATE INVESTMENTS INCOME AND EXPENSES (in thousands)

	NET INCOME	
	YEAR ENDED JUNE 30	
	2018	2017
Office Buildings	\$ 13,956	\$ 5,599
Multi-Family Apartment Buildings	4,723	5,782
Retail Property	7,830	2,696
Industrial/Research & Development Property	588	186
Hotels	817	860
Other	3,070	1,395
TOTAL	\$ 30,984	\$ 16,518

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ACTUARIAL section



NHRS has 48,121 active members, who, along with their participating employers, contribute into the retirement system.

ACTUARIAL CERTIFICATION



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October 31, 2018

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

Attention: Mr. George Lagos

Dear Board Members:

This report was prepared at the request of the Board and is intended for use by the Retirement System and those designated or approved by the Board. This report may be provided to parties other than the System only in its entirety and only with the permission of the Board. 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, 2018.
- 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, 2018.
- To provide supporting schedules for the Comprehensive Annual Financial Report (CAFR) for the System’s use in the Actuarial Section, the Statistical Section, Notes to the Financial Statements, and Required Supplementary Information.

This report includes results from the June 30, 2018 annual actuarial valuation. The report was based upon information, furnished by New Hampshire Retirement System (NHRS) staff, concerning Retirement System benefits, financial transactions, and active members, terminated members, retirees and beneficiaries as of June 30, 2018. 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 Comprehensive Annual Financial Report for the System’s use in the Actuarial Section, the Statistical Section, Notes to the Financial Statements and Required Supplementary Information:

- Summary of Actuarial Assumptions and Methods
 - o Percent Retiring Within Next Year
 - o Probabilities of Becoming Disabled Within Next Year
 - o Percent Separating Within Next Year
 - o Individual Employee Pay Increases
- Retirees and Beneficiaries Age Distribution
- Active Members by Valuation Division
- Active Members Age and Service Distribution
- Historical Membership Data – Active and Retired
- Summary of Membership Data by Category
- Schedule of Average Benefit Payment Amounts

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- 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, 2018 in this report are based on the assumptions adopted by the Board pursuant to the June 30, 2015 experience study and the census information as of June 30, 2018. The actuarial accrued liability as of June 30, 2018 differs from the total pension (OPEB) liability as of June 30, 2018 under GASB Statement Nos. 67 and 74 because the total pension (OPEB) liability is based on a roll-forward of the June 30, 2017 actuarial valuation under the System’s accounting procedures.

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 valuation results summarized in this report involve actuarial calculations that require assumptions about future events. The actuarial assumptions are established by the Board after consulting with the actuary under New Hampshire Statute RSA 100-A:14 IX. We believe that the assumptions and methods used in this report are reasonable and appropriate for the purposes for which they have been used.

However, other assumptions and methods could also be reasonable and could result in materially different results. In addition, because it is not possible or practical to consider every possible contingency, we may use summary information, estimates or simplifications of calculations to facilitate the modeling of future events. We may also exclude factors or data that are deemed to be immaterial. The actuarial funding method is the Individual Entry Age Actuarial Cost Method, in compliance with NHRS State Statutes. The assumptions and the methods comply with the requirements of Statements Nos. 67 and 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, 2015 Experience Study.

We certify that the information contained in this June 30, 2018 accounting report of the NHRS is accurate and fairly presents the actuarial position of the New Hampshire Retirement System as of June 30, 2018 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.

David T. Kausch and Heidi G. Barry 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,



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



Heidi G. Barry, ASA, FCA, MAAA DTK/HGB:ah



SUMMARY OF ACTUARIAL ASSUMPTIONS AND METHODS

VALUATION METHODS

PENSION

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

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

Actuarial gain/(losses), as they occur, reduce (increase) the unfunded actuarial accrued liability.

Financing of Unfunded Actuarial Accrued Liabilities – unfunded actuarial accrued liabilities are amortized by level (principal and interest combined) percent-of-payroll contributions over 21 years from the contribution effective date of July 1, 2018 (FY 2019).

OPEB

- (i) Liabilities are determined under the entry-age actuarial cost method.
- (ii) Contribution rates to the 401(h) sub-trust are determined as the lesser of 25% of the employers' contributions or the actuarial required contribution rate that keeps the medical subsidy sub-trust solvent (the "solvency rate").

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

The actuarial value of assets allocated to the pension and medical subsidy plan is 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 rate, 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 rate determined by the June 30, 2015 interim valuation is illustrative for the 2018–19 biennium. The unfunded actuarial accrued liability (UAAL) was determined using the funding value of assets and actuarial accrued liability calculated as of the valuation date. The UAAL amortization payment (one component of the contribution requirement), is the level percent of pay required to fully amortize the UAAL over a 22 year period beginning on July 1, 2017. This UAAL payment reflects any payments expected to be made and interest to be accrued between the valuation date and the date contributions determined by this report are scheduled to begin. It was assumed that the entire pension contribution determined by the June 30, 2013 valuation effective from July 1, 2015 to June 30, 2017 would be contributed to the net pension position.

ECONOMIC ASSUMPTIONS

The investment return rate assumed in the valuation is 7.25% per year, compounded annually (net after investment expenses). The investment return rate assumed in the medical subsidy valuations is 3.25% per year, compounded annually (net after investment expenses) for purposes of computing accrued liabilities and other disclosures required by GASB Statement No. 74. However, for determining the solvency contribution rate for the medical subsidy account, the investment return rate assumption was 7.25% on the market value of assets.

The wage inflation rate assumed in this valuation was 3.25% per year. The wage inflation rate is defined to be the portion of total pay increases for an individual that are due to macro economic forces including productivity, price inflation, and labor market conditions. The wage inflation rate does not include pay changes related to individual merit and seniority effects.

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

The assumed real rate of return over wage inflation is defined to be the portion of total investment return that is more than the assumed total wage growth rate. Considering other economic assumptions, the 7.25% investment return rate translates to an assumed real rate of return over wage inflation of 4.00%. The assumed real rate of return over price inflation would be higher — on the order of 4.75%, with a 2.50% price inflation assumption.

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

Pay increase assumptions for individual active members are shown for sample ages on pages 75–79. Part of the assumption for each age is for merit and/or seniority increase, and the other 3.25% recognizes wage inflation, including price inflation, productivity increases, and other macro economic forces.

TECHNICAL ASSUMPTIONS

Administrative & Investment Expenses	The investment return assumption is intended to be the return net of investment expenses. Annual administrative expenses are assumed to be equal to the prior year’s administrative expenses. Assumed administrative expenses are added to the Normal Cost, and were 0.35% of payroll in the June 30, 2018 interim valuation.
Benefit Service	Exact fractional service is used to determine the amount of benefit payable.
COLA	None assumed.
Decrement Operation	Disability and withdrawal do not operate during normal retirement eligibility.
Decrement Timing	Normal and early retirement decrements for the Teachers group are assumed to occur at the beginning of the year. All other decrements were assumed to occur mid-year.
Eligibility Testing	Eligibility for benefits is determined based upon the age nearest birthday and service nearest whole year on the date the decrement is assumed to occur.
Forfeitures	The percent of vested members who quit before retirement who elect to refund and forfeit their pension is assumed to be 25% at first vesting eligibility, grading to 0% at first retirement eligibility.
Incidence of Contributions	Contributions are assumed to be received continuously throughout the year based upon the computed percent of payroll shown in this report, and the actual payroll at the time contributions are made.
Liability Adjustments	Normal, early, and vesting retirement liabilities are increased by 7.5%, 5.0%, 11.5%, and 11.5% for Employees, Teachers, Police, and Fire respectively to account for end of career pay increases. Members hired after July 1, 2011 or who have non-vested status as of January 1, 2012 are assumed to have no adjustment for end of career payments.
Marriage Assumption	Group I: 60% of males and 60% of females are assumed to be married for purposes of death-in-service benefits. Group II: 60% of males and 60% of females are assumed to be married for purposes of death-in-service and death after retirement benefits. Male spouses are assumed to be three years older than female spouses for active member valuation purposes.
Normal Form of Benefit	This valuation assumes that members will elect the normal form of payment. Alternate forms of payment are available and are actuarially adjusted based on the valuation interest and mortality. Group I: The assumed normal form of benefit is a straight life benefit. Group II: The assumed normal form of benefit is straight life for single members and joint and 50% survivor for married members.
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.
Data Adjustments	New active member pays were annualized.
Medical Subsidy	The solvency rate for the medical subsidy benefits were determined to provide an estimated margin of 20% of the benefits payable by June 30, 2018.

GROUP I—EMPLOYEES

SEPARATIONS FROM ACTIVE SERVICE: Representative values of the assumed annual rates of withdrawal and vesting, death, disability, and normal retirement are as follows:

Annual Rate of							
Age	Years of Service	Withdrawal and Vesting		Death*		Disability**	
		Men	Women	Men	Women	Men	Women
	0	23.00%	30.00%				
	1	20.00	22.00				
	2	15.00	16.00				
	3	12.00	12.00				
	4	10.00	8.00				
25	5+	7.20	7.20	.05%	.02%	.03%	.02%
30		7.20	7.20	.05	.03	.03	.02
35		5.04	5.04	.06	.04	.03	.03
40		5.04	5.04	.07	.05	.08	.06
45		5.04	5.04	.10	.08	.16	.11
50		3.96	3.96	.18	.13	.27	.23
55		3.60	3.60	.31	.21	.47	.42
60		3.60	3.60	—	—	—	—

Annual Rate of Normal Retirement					
Age	For Members Hired Prior to July 1, 2011		For Members Hired On or After July 1, 2011		
	Men	Women	Men	Women	
60	11.00%	11.00%	—	—	
61	11.00	11.00	—	—	
62	16.00	15.00	—	—	
63	16.00	14.00	—	—	
64	14.00	14.00	—	—	
65	16.00	20.00	45.00%	44.00%	
66	25.00	22.00	45.00	44.00	
67	23.00	22.00	23.00	22.00	
68	21.00	18.00	21.00	18.00	
69	20.00	19.00	20.00	19.00	
70	100.00	100.00	100.00	100.00	

*98% are assumed to be ordinary death and 2% are assumed to be accidental death.
 **50% are assumed to be ordinary disability and 50% are assumed to be accidental disability.

SALARY INCREASES: Representative values of the assumed rates of future salary increases are as follows:

Service Index	Merit & Seniority	Base	Annual Rate of Salary Increases
1	10.00%	3.25%	13.25%
2	6.00	3.25	9.25
3	2.50	3.25	5.75
4	2.00	3.25	5.25
5	1.50	3.25	4.75
6	1.25	3.25	4.50
7-9	1.00	3.25	4.25
10-25	0.50	3.25	3.75

DEATHS AFTER RETIREMENT:

MORTALITY RATE			MORTALITY RATE		
AGE	MEN	WOMEN	AGE	MEN	WOMEN
35	.13%	.13%	60	.88%	.65%
40	.19	.19	65	1.23	.97
45	.28	.24	70	1.88	1.54
50	.42	.32	75	3.05	2.54
55	.63	.45	80	5.15	4.32

GROUP I—TEACHERS

SEPARATIONS FROM ACTIVE SERVICE: Representative values of the assumed annual rates of withdrawal and vesting, death, disability, and normal retirement are as follows:

Age	Years of Service	Annual Rate of					
		Withdrawal and Vesting		Death*		Disability**	
		Men	Women	Men	Women	Men	Women
	0	35.00%	31.00%				
	1	17.00	16.00				
	2	14.00	13.00				
	3	10.00	11.00				
	4	8.00	8.00				
25	5+	4.00	6.00	.04%	.01%	.01%	.00%
30		4.00	6.00	.04	.02	.02	.00
35		2.80	4.20	.05	.03	.02	.01
40		2.80	4.20	.06	.04	.04	.04
45		2.80	4.20	.09	.05	.07	.06
50		2.20	3.30	.15	.09	.17	.11
55		2.00	3.00	.27	.15	.38	.35
60		2.00	3.00	—	—	—	—

*98% are assumed to be ordinary death and 2% are assumed to be accidental death.

**50% are assumed to be ordinary disability and 50% are assumed to be accidental disability.

Age	Annual Rate of Normal Retirement			
	For Members Hired Prior to July 1, 2011		For Members Hired On or After July 1, 2011	
	Men	Women	Men	Women
60	18.00%	13.00%	—	—
61	19.00	15.00	—	—
62	20.00	19.00	—	—
63	21.00	19.00	—	—
64	22.00	21.00	—	—
65	23.00	25.00	58.00%	56.00%
66	30.00	32.00	58.00	56.00
67	25.00	27.00	25.00	27.00
68	25.00	27.00	25.00	27.00
69	25.00	27.00	25.00	27.00
70	100.00	100.00	100.00	100.00

SALARY INCREASES: Representative values of the assumed rates of future salary increases are as follows:

Service Index	Merit & Seniority	Base	Annual Rate of Salary Increases
1	10.00%	3.25%	13.25%
2	6.00	3.25	9.25
3	3.25	3.25	6.50
4	2.75	3.25	6.00
5	2.50	3.25	5.75
6	2.25	3.25	5.50
7	2.00	3.25	5.25
8	1.75	3.25	5.00
9	1.50	3.25	4.75
10	1.25	3.25	4.50
11–25	1.00	3.25	4.25

DEATHS AFTER RETIREMENT:

MORTALITY RATE			MORTALITY RATE		
AGE	MEN	WOMEN	AGE	MEN	WOMEN
35	.11%	.09%	60	.76%	.46%
40	.17	.13	65	1.06	.68
45	.24	.17	70	1.62	1.08
50	.36	.23	75	2.63	1.78
55	.54	.32	80	4.44	3.03

GROUP II – POLICE OFFICERS

SEPARATIONS FROM ACTIVE SERVICE: Representative values of the assumed annual rates of withdrawal, vesting, death, disability, and retirement are as follows:

Age	Years of Service	Annual Rate of					
		Withdrawal and Vesting		Death*		Disability**	
		Men	Women	Men	Women	Men	Women
	0	25.00%	30.00%				
	1	15.00	20.00				
	2	10.00	13.00				
	3	7.00	11.50				
	4	5.00	10.00				
25	5+	5.88	5.88	.04%	.01%	.03%	.03%
30		4.93	4.93	.04	.02	.03	.03
35		4.13	4.13	.05	.03	.07	.07
40		3.45	3.45	.06	.04	.16	.16
45		2.83	2.83	.09	.06	.28	.28
50		2.40	2.40	.15	.11	.45	.45
55		1.98	1.98	.26	.18	.67	.67
60		1.60	1.60	—	—	—	—

SALARY INCREASES: Representative values of the assumed rates of future salary increases are as follows:

Service Index	Merit & Seniority	Base	Annual Rate of Salary Increases
1	22.00%	3.25%	25.25%
2	15.00	3.25	18.25
3	7.00	3.25	10.25
4	5.00	3.25	8.25
5	3.75	3.25	7.00
6	2.50	3.25	5.75
7	2.00	3.25	5.25
8	1.50	3.25	4.75
9-25	1.00	3.25	4.25

DEATHS AFTER RETIREMENT:

AGE	MORTALITY RATE		AGE	MORTALITY RATE	
	MEN	WOMEN		MEN	WOMEN
35	.11%	.11%	60	.75%	.55%
40	.16	.16	65	1.05	.83
45	.24	.20	70	1.60	1.31
50	.37	.27	75	2.61	2.17
55	.54	.38	80	4.40	3.69

NORMAL RETIREMENT

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

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

Retirement Ages	% of Active Members Retiring Within Next Year	Age 46 with 21 years	Age 47 with 22 years	Age 48 with 23 years	Age 49 with 24 years	Age 50 with 25 years
45	22%					
46	22%	27%				
47	22%	27%	31%			
48	22%	25%	31%	34%		
49	22%	25%	31%	34%	38%	
50	22%	25%	27%	34%	38%	40%
51	22%	22%	27%	31%	38%	40%
52	22%	22%	22%	31%	33%	40%
53	22%	22%	22%	22%	33%	38%
54	22%	22%	22%	22%	22%	38%
55	22%	22%	22%	22%	22%	22%
56	22%	22%	22%	22%	22%	22%
57	22%	22%	22%	22%	22%	22%
58	22%	22%	22%	22%	22%	22%
59	22%	22%	22%	22%	22%	22%
60	22%	22%	22%	22%	22%	22%
61	20%	20%	20%	20%	20%	20%
62	22%	22%	22%	22%	22%	22%
63	22%	22%	22%	22%	22%	22%
64	20%	20%	20%	20%	20%	20%
65	25%	25%	25%	25%	25%	25%
66	50%	50%	50%	50%	50%	50%
67	50%	50%	50%	50%	50%	50%
68	50%	50%	50%	50%	50%	50%
69	50%	50%	50%	50%	50%	50%
70	100%	100%	100%	100%	100%	100%

GROUP II – FIREFIGHTERS

SEPARATIONS FROM ACTIVE SERVICE: Representative values of the assumed annual rates of withdrawal and vesting, death, disability, and retirement are as follows:

Age	Years of Service	Annual Rate of					
		Withdrawal and Vesting		Death*		Disability**	
		Men	Women	Men	Women	Men	Women
	0	7.75%	7.75%				
	1	4.50	4.50				
	2	3.00	3.00				
	3	2.75	2.75				
	4	2.25	2.25				
25	5+	1.25	1.25	.04%	.01%	.06%	.06%
30		1.25	1.25	.04	.02	.07	.07
35		1.25	1.25	.05	.03	.09	.09
40		1.25	1.25	.06	.04	.12	.12
45		1.25	1.25	.08	.06	.18	.18
50		1.25	1.25	.15	.10	.27	.27
55		1.25	1.25	.26	.17	.40	.40
60		1.25	1.25	—	—	—	—

SALARY INCREASES: Representative values of the assumed rates of future salary increases are as follows:

Service Index	Merit & Seniority	Base	Annual Rate of Salary Increases
1	22.00%	3.25%	25.25%
2	15.00	3.25	18.25
3	7.00	3.25	10.25
4	5.00	3.25	8.25
5	3.75	3.25	7.00
6	2.50	3.25	5.75
7	2.00	3.25	5.25
8	1.50	3.25	4.75
9-25	1.00	3.25	4.25

DEATHS AFTER RETIREMENT:

AGE	MORTALITY RATE		AGE	MORTALITY RATE	
	MEN	WOMEN		MEN	WOMEN
35	.11%	.11%	60	.76%	.53%
40	.16	.15	65	1.06	.79
45	.24	.19	70	1.62	1.25
50	.36	.26	75	2.63	2.07
55	.54	.37	80	4.44	3.52

NORMAL RETIREMENT

Retirement Ages	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			
	% of Active Members Retiring Within Next Year	Age 46 with 21 years	Age 47 with 22 years	Age 48 with 23 years	Age 49 with 24 years	Age 50 with 25 years
45	12%					
46	12%	15%				
47	12%	15%	18%			
48	12%	15%	18%	22%		
49	12%	15%	18%	22%	26%	
50	17%	15%	18%	21%	26%	30%
51	17%	17%	18%	21%	26%	30%
52	17%	17%	17%	21%	21%	30%
53	17%	17%	17%	17%	21%	22%
54	17%	17%	17%	17%	17%	22%
55	22%	22%	22%	22%	22%	22%
56	22%	22%	22%	22%	22%	22%
57	22%	22%	22%	22%	22%	22%
58	22%	22%	22%	22%	22%	22%
59	22%	22%	22%	22%	22%	22%
60	28%	28%	28%	28%	22%	28%
61	28%	28%	28%	28%	28%	28%
62	28%	28%	28%	28%	28%	28%
63	28%	28%	28%	28%	28%	28%
64	28%	28%	28%	28%	28%	28%
65	28%	28%	28%	28%	28%	28%
66	28%	28%	28%	28%	28%	28%
67	28%	28%	28%	28%	28%	28%
68	28%	28%	28%	28%	28%	28%
69	28%	28%	28%	28%	28%	28%
70	100%	100%	100%	100%	100%	100%

HISTORICAL MEMBERSHIP DATA — ACTIVE AND RETIRED

The following 4 tables summarize the actuarial valuation data for the period from 2009 through 2013. Valuations are prepared biennially. An interim valuation was prepared in fiscal year 2008, 2010 and in fiscal year 2012.

EMPLOYEES (aggregate compensation and annual allowance dollars in thousands)

ACTIVE MEMBERSHIP DATA

FISCAL YEAR	NUMBER OF ACTIVES*	AGGREGATE COMPENSATION	AVERAGE COMPENSATION	% INCREASE IN AVERAGE COMPENSATION
2018	24,511	\$1,205,121	\$ 49,167	2.03%
2017	24,478	1,179,518	48,187	3.97%
2016	24,520	1,136,451	46,348	(0.14%)
2015	24,298	1,127,766	46,414	4.66%
2014	25,545	1,088,508	44,347	1.94%
2013	24,809	1,079,245	43,502	(0.03%)
2012	24,747	1,076,831	43,514	(0.23%)
2011	25,539	1,113,867	43,614	3.68%
2010	25,987	1,093,147	42,065	2.72%
2009	26,352	1,079,157	40,952	7.47%

*Excludes temporary inactive members.

RETIRED MEMBERSHIP DATA

FISCAL YEAR	ADDED TO ROLLS		REMOVED FROM ROLLS		ROLLS END OF YEAR		% INCREASE IN ANNUAL ALLOWANCES
	NO.**	ANNUAL* ALLOWANCES (IN DOLLARS)	NO.	ANNUAL ALLOWANCES (IN DOLLARS)	NO.	ANNUAL ALLOWANCES	
2018	1,133	\$19,288	513	\$ 6,556	18,193	\$249,109	5.39%
2017	1,950	22,224	519	8,977	17,573	236,377	5.94%
2016	1,134	19,332	475	4,636	16,142	223,130	7.05%
2015	1,504	21,357	1,335	10,968	15,483	208,434	5.25%
2014	1,094	15,784	492	5,431	15,314	198,045	5.52%
2013	1,110	16,335	539	6,699	14,712	187,692	5.41%
2012	1,111	14,711	457	4,890	14,141	178,056	5.84%
2011	1,113	16,521	428	4,578	13,487	168,235	7.64%
2010	1,070	18,300	460	4,624	12,802	156,292	9.59%
2009	934	14,703	322	3,864	12,192	142,616	8.23%

*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.

TEACHERS

(aggregate compensation and annual allowance dollars in thousands)

ACTIVE MEMBERSHIP DATA

FISCAL YEAR	NUMBER OF ACTIVES*	AGGREGATE COMPENSATION	AVERAGE COMPENSATION	% INCREASE IN AVERAGE COMPENSATION
2018	17,883	\$1,117,581	\$ 62,494	2.56%
2017	17,617	1,073,447	60,932	1.69%
2016	17,784	1,065,621	59,920	1.15%
2015	17,732	1,050,447	59,240	3.06%
2014	17,986	1,033,867	57,482	(0.04%)
2013	18,084	1,039,934	57,506	0.75%
2012	18,161	1,036,605	57,079	1.70%
2011	18,466	1,036,376	56,123	2.28%
2010	18,603	1,020,745	54,870	2.30%
2009	18,709	1,003,514	53,638	3.73%

*Excludes temporary inactive members.

RETIRED MEMBERSHIP DATA

FISCAL YEAR	ADDED TO ROLLS		REMOVED FROM ROLLS		ROLLS END OF YEAR		% INCREASE IN ANNUAL ALLOWANCES
	NO.**	ANNUAL* ALLOWANCES (IN DOLLARS)	NO.	ANNUAL ALLOWANCES (IN DOLLARS)	NO.	ANNUAL ALLOWANCES	
2018	766	\$20,526	239	\$6,075	13,223	\$291,281	5.22%
2017	1,523	21,713	237	8,847	12,696	276,830	4.87%
2016	760	19,954	209	5,325	11,410	263,964	5.87%
2015	840	21,653	946	6,891	10,859	249,335	6.25%
2014	744	17,222	186	4,802	10,965	234,663	5.59%
2013	698	15,844	247	5,860	10,407	222,243	4.70%
2012	712	16,420	183	5,150	9,956	212,259	5.61%
2011	504	10,402	164	3,644	9,427	200,989	3.48%
2010	849	22,231	269	5,199	9,087	194,231	9.61%
2009	1,001	26,668	148	3,214	8,507	177,199	15.26%

*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.

POLICE OFFICERS (aggregate compensation and annual allowance dollars in thousands)

ACTIVE MEMBERSHIP DATA

FISCAL YEAR	NUMBER OF ACTIVES*	AGGREGATE COMPENSATION	AVERAGE COMPENSATION	% INCREASE IN AVERAGE COMPENSATION
2018	4,221	\$ 302,767	\$ 71,729	2.32%
2017	4,151	291,004	70,105	3.42%
2016	4,139	280,577	67,789	1.22%
2015	4,174	279,555	66,975	3.15%
2014	4,166	270,497	64,930	1.91%
2013	4,187	266,775	63,715	0.20%
2012	4,118	261,865	63,590	1.20%
2011	4,130	259,509	62,835	2.86 %
2010	4,231	258,472	61,090	2.27 %
2009	4,318	257,934	59,735	5.92 %

*Excludes temporary inactive members.

RETIRED MEMBERSHIP DATA

FISCAL YEAR	ADDED TO ROLLS		REMOVED FROM ROLLS		ROLLS END OF YEAR		% INCREASE IN ANNUAL ALLOWANCES
	NO.**	ANNUAL* ALLOWANCES (IN DOLLARS)	NO.	ANNUAL ALLOWANCES (IN DOLLARS)	NO.	ANNUAL ALLOWANCES	
2018	201	\$ 7,967	64	\$1,390	3,923	\$142,516	4.85%
2017	233	7,985	76	1,745	3,786	135,930	4.81%
2016	239	10,027	67	1,339	3,629	129,690	7.18%
2015	282	7,303	107	1,675	3,457	121,002	4.88%
2014	178	6,420	59	1,304	3,282	115,374	4.64%
2013	247	8,189	65	1,464	3,163	110,258	6.50%
2012	171	6,977	70	1,008	2,981	103,533	6.12%
2011	237	10,370	59	1,133	2,880	97,564	10.46%
2010	189	7,711	52	1,413	2,702	88,327	7.68%
2009	157	7,235	28	627	2,565	82,029	8.76%

*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.

FIREFIGHTERS (aggregate compensation and annual allowance dollars in thousands)

ACTIVE MEMBERSHIP DATA

FISCAL YEAR	NUMBER OF ACTIVES*	AGGREGATE COMPENSATION	AVERAGE COMPENSATION	% INCREASE IN AVERAGE COMPENSATION
2018	1,667	\$ 128,883	\$ 77,314	2.54%
2017	1,640	123,643	75,392	3.23%
2016	1,626	118,754	73,034	0.15%
2015	1,608	117,263	72,925	2.07%
2014	1,610	115,027	71,445	(0.78%)
2013	1,608	115,788	72,007	2.39%
2012	1,599	112,456	70,329	4.36%
2011	1,603	108,028	67,391	1.75 %
2010	1,646	109,020	66,233	1.67 %
2009	1,653	107,682	65,144	10.25 %

*Excludes temporary inactive members.

RETIRED MEMBERSHIP DATA

FISCAL YEAR	ADDED TO ROLLS		REMOVED FROM ROLLS		ROLLS END OF YEAR		% INCREASE IN ANNUAL ALLOWANCES
	NO.**	ANNUAL* ALLOWANCES (IN DOLLARS)	NO.	ANNUAL ALLOWANCES (IN DOLLARS)	NO.	ANNUAL ALLOWANCES	
2018	68	\$3,266	34	\$ 717	1,673	\$66,525	3.98%
2017	88	3,697	44	1,213	1,639	63,976	4.04%
2016	75	4,177	31	936	1,595	61,492	5.56%
2015	105	4,546	47	882	1,551	58,251	6.71%
2014	89	2,774	43	1,139	1,493	54,587	3.09%
2013	98	3,497	27	715	1,447	52,952	5.55%
2012	79	3,105	39	495	1,376	50,170	5.49%
2011	111	5,051	29	696	1,336	47,560	10.08%
2010	53	2,490	36	766	1,254	43,205	4.16%
2009	60	2,628	23	644	1,237	41,481	5.02%

*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.

TOTAL OF ALL GROUPS

(dollars in thousands)

Fiscal Year	Projected Liabilities For			Net Position Held For Benefits	Percentage of Accrued Liabilities Covered By Net Position Held for Benefits		
	(1) Aggregate Member Contributions	(2) Current Retirees & Beneficiaries	(3) Active & Inactive Members (Employer Financed Portion)*		(1)	(2)	(3)
2018	\$2,927,793	\$7,667,448	\$3,107,908	\$ 8,710,939	100.00%	75.00%	0.00%
2017	\$2,915,811	\$7,315,440	\$2,997,199	\$8,165,685	100.00%	72.00%	0.00%
2016	\$2,978,817	\$6,964,227	\$2,789,821	\$7,636,066	100.00%	67.00%	0.00%
2015	\$2,886,196	\$3,210,280	\$1,820,582	\$4,862,256	100.00%	82.00%	0.00%
2014	\$2,842,340	\$5,789,052	\$2,413,782	\$6,700,553	100.00%	67.00%	0.00%
2013	\$2,808,526	\$5,519,814	\$2,380,428	\$6,070,681	100.00%	59.00%	0.00%

EMPLOYEES

(dollars in thousands)

Fiscal Year	Projected Liabilities For			Net Position Held For Benefits	Percentage of Accrued Liabilities Covered By Net Position Held for Benefits		
	(1) Aggregate Member Contributions	(2) Current Retirees & Beneficiaries	(3) Active & Inactive Members (Employer Financed Portion)*		(1)	(2)	(3)
2018	\$1,128,180	\$2,391,404	\$ 974,131	\$2,922,358	100.00%	75.00%	0.00%
2017	\$1,133,071	\$2,272,436	\$ 934,564	\$2,734,558	100.00%	70.00%	0.00%
2016	\$1,152,928	\$2,139,549	\$ 857,347	\$2,538,563	100.00%	65.00%	0.00%
2015	\$1,107,866	\$1,916,257	\$ 840,426	\$2,403,294	100.00%	68.00%	0.00%
2014	\$1,083,878	\$1,823,517	\$ 784,437	\$2,195,284	100.00%	61.00%	0.00%
2013	\$1,069,628	\$1,729,855	\$ 755,482	\$1,977,479	100.00%	52.00%	0.00%

TEACHERS

(dollars in thousands)

Fiscal Year	Projected Liabilities For			Net Position Held For Benefits	Percentage of Accrued Liabilities Covered By Net Position Held for Benefits		
	(1) Aggregate Member Contributions	(2) Current Retirees & Beneficiaries	(3) Active & Inactive Members (Employer Financed Portion)*		(1)	(2)	(3)
2018	\$1,142,455	\$2,956,675	\$1,268,903	\$3,176,932	100.00%	69.00%	0.00%
2017	\$1,132,876	\$2,819,228	\$1,211,560	\$2,979,005	100.00%	70.00%	0.00%
2016	\$1,171,831	\$2,692,037	\$1,156,821	\$2,799,863	100.00%	60.00%	0.00%
2015	\$1,127,439	\$2,323,302	\$ 988,870	\$2,682,083	100.00%	67.00%	0.00%
2014	\$1,113,650	\$2,198,892	\$ 966,511	\$2,482,496	100.00%	62.00%	0.00%
2013	\$1,107,192	\$2,087,926	\$ 977,937	\$2,255,011	100.00%	55.00%	0.00%

*Liabilities for active members are based on service as of the valuation date and projected compensation at the member's expected retirement date. Also includes terminated vested members.

NOTE: Based on a 7.75% interest rate for fiscal years prior to 2015 and 7.25% after that.

POLICE OFFICERS

(dollars in thousands)

Fiscal Year	Projected Liabilities For			Net Position Held For Benefits	Percentage of Accrued Liabilities Covered By Net Position Held for Benefits		
	(1) Aggregate Member Contributions	(2) Current Retirees & Beneficiaries	(3) Active & Inactive Members (Employer Financed Portion)*		(1)	(2)	(3)
2018	\$ 428,859	\$1,596,512	\$591,281	\$ 1,758,301	100.00%	83.00%	0.00%
2017	\$ 426,606	\$1,526,761	\$570,755	\$ 1,650,908	100.00%	80.00%	0.00%
2016	\$ 430,490	\$1,460,840	\$535,225	\$ 1,546,665	100.00%	76.00%	0.00%
2015	\$ 429,115	\$1,266,591	\$463,902	\$ 1,477,517	100.00%	83.00%	0.00%
2014	\$ 422,972	\$1,209,741	\$454,133	\$ 1,361,280	100.00%	78.00%	0.00%
2013	\$ 417,630	\$1,160,173	\$438,580	\$ 1,236,579	100.00%	71.00%	0.00%

FIREFIGHTERS

(dollars in thousands)

Fiscal Year	Projected Liabilities For			Net Position Held For Benefits	Percentage of Accrued Liabilities Covered By Net Position Held for Benefits		
	(1) Aggregate Member Contributions	(2) Current Retirees & Beneficiaries	(3) Active & Inactive Members (Employer Financed Portion)*		(1)	(2)	(3)
2018	\$ 228,299	\$722,857	\$273,593	\$ 853,348	100.00%	86.00%	0.00%
2017	\$ 223,258	\$697,015	\$260,320	\$ 801,214	100.00%	83.00%	0.00%
2016	\$ 223,568	\$671,801	\$240,428	\$ 750,975	100.00%	79.00%	0.00%
2015	\$ 221,776	\$592,362	\$210,708	\$ 718,867	100.00%	84.00%	0.00%
2014	\$ 221,840	\$556,902	\$208,701	\$ 661,493	100.00%	79.00%	0.00%
2013	\$ 214,076	\$541,860	\$208,430	\$ 601,612	100.00%	72.00%	0.00%

*Liabilities for active members are based on service as of the valuation date and projected compensation at the member's expected retirement date. Also includes terminated vested members.

NOTE: Based on a 7.75% interest rate for fiscal years prior to 2015 and 7.25% after that.

ANALYSIS OF PAST FINANCIAL EXPERIENCE

This presentation shows the experience of actual financial results relative to expected results. It is an analysis which focuses on actuarial gains and losses over the most recent five actuarial valuations and reconciles the difference in the actuarial normal contribution rates from the expected to actual values.

RECONCILIATION OF EMPLOYER NORMAL RATE *

EMPLOYEES

YEAR ENDED	June 30 2017	June 30 2015	June 30, 2013		June 30 2011	June 30 2009	June 30 2007
			State Employees	Political Subdivision Employees			
Projected Normal Rate*	11.08	10.34%	10.51%	10.44%	10.71%	9.09%	8.74%
Decremental Experience	—	—	—	—	—	—	—
Pensioner's Experience	—	—	—	—	—	—	—
Excess Salary Increases	—	—	—	—	—	—	—
Method Change	—	—	—	—	—	—	0.98
Effect of Legislation	—	—	—	—	(1.95)	(0.15)	(0.57)
Asset (Gains)/Losses	(0.20)	(0.44)	0.52	0.52	0.31	1.18	(0.36)
Current New Entrants	—	—	—	—	—	—	—
Amendments	—	—	—	—	—	—	—
Target Rate System Experience	—	—	—	—	—	—	—
Assumption Changes	—	1.18	—	—	1.01	—	0.41
Other (Gains)/Losses	—	—	(0.17)	(0.10)	0.36	0.59	(0.11)
ACTUAL NORMAL RATE	10.88%	11.08%	10.86%	10.86%	10.44%	10.71%	9.09%

TEACHERS

YEAR ENDED	June 30 2017	June 30 2015	June 30 2013	June 30 2011	June 30 2009	June 30 2007
Projected Normal Rate *	15.70	12.09%	11.96%	11.51%	9.38%	8.93%
Decremental Experience	—	—	—	—	—	—
Pensioner's Experience	—	—	—	—	—	—
Excess Salary Increases	—	—	—	—	—	—
Method Change	—	—	—	—	—	0.82
Effect of Legislation	—	—	—	(2.27)	—	(0.72)
Asset (Gains)/Losses	(0.09)	(0.30)	0.61	0.39	1.55	(0.46)
Current New Entrants	—	—	—	—	—	—
Amendments	—	—	—	—	—	—
Target Rate System Experience	—	—	—	—	—	—
Assumption Changes	0.38	3.91	—	2.05	—	0.80
Other (Gains)/Losses	—	—	0.15	0.28	0.58	0.01
ACTUAL NORMAL RATE	15.99%	15.70%	12.72%	11.96%	11.51%	9.38%

*Based on forecast valuations.

This presentation shows the experience of actual financial results relative to expected results. It is an analysis which focuses on actuarial gains and losses over the most recent five actuarial valuations and reconciles the difference in the actuarial normal contribution rates from the expected to actual values.

RECONCILIATION OF EMPLOYER NORMAL RATE *

POLICE OFFICERS

YEAR ENDED	June 30 2017	June 30 2015	June 30, 2013		June 30 2011	June 30 2009	June 30 2007
			State Employees	Political Subdivision Employees			
Projected Normal Rate *	25.33	20.88%	21.45%	21.35%	22.92%	17.34%	18.21%
Decremental Experience	—	—	—	—	—	—	—
Pensioner's Experience	—	—	—	—	—	—	—
Excess Salary Increases	—	—	—	—	—	—	—
Method Change	—	—	—	—	—	—	1.11
Effect of Legislation	—	—	—	—	(7.15)	—	(2.17)
Asset (Gains)/Losses	(0.56)	(1.57)	1.31	1.31	0.85	2.89	(0.90)
Current New Entrants	—	—	—	—	—	—	—
Amendments	—	—	—	—	—	—	—
Target Rate System Experience	—	—	—	—	—	—	—
Assumption Changes	—	6.02	—	—	4.00	—	0.31
Other Asset (Gains)/Losses	—	—	(0.22)	(0.12)	0.73	2.69	0.78
ACTUAL NORMAL RATE	24.77%	25.33%	22.54%	22.54%	21.35%	22.92%	17.34%

FIREFIGHTERS

YEAR ENDED	June 30 2017	June 30 2015	June 30, 2013		June 30 2011	June 30 2009	June 30 2007
			State Firefighters	Political Subdivision Firefighters			
Projected Normal Rate *	27.79	23.88%	23.90%	23.79%	28.25%	22.52%	24.49%
Decremental Experience	—	—	—	—	—	—	—
Pensioner's Experience	—	—	—	—	—	—	—
Excess Salary Increases	—	—	—	—	—	—	—
Method Change	—	—	—	—	—	—	2.48
Effect of Legislation	—	—	—	—	(8.58)	—	(2.61)
Asset (Gains)/Losses	(1.36)	(1.39)	—	—	0.99	3.24%	(1.05)
Current New Entrants	—	—	—	—	—	—	—
Amendments	—	—	—	—	—	—	—
Target Rate System Experience	—	—	—	—	—	—	—
Assumption Changes	—	5.80	—	—	3.39	—	0.21
Other Asset (Gains)/Losses	—	—	—	—	(0.26)	2.49%	(1.00)
ACTUAL NORMAL RATE	26.43%	27.79%	25.32%	25.32%	23.79%	28.25%	22.52%

*Based on forecast valuations.

The Schedules of Funding Progress below reflect the funding status of the Pension and OPEB plans based on the valuation or funding policy basis for the last 10 years. Separate schedules are included in the Required Supplementary Information of the Financial Section disclosing the 10-year schedule of actuarially determined and actual contributions paid.

SCHEDULE OF FUNDING PROGRESS – PENSION PLAN (\$ in thousands)

Fiscal Year Ended	Actuarial Value of Assets (a)	Actuarial Accrued Liability (AAL) (b)	Unfunded AAL (UALL) (b-a)	Actuarial Value of Assets Percentage of AAL (a/b)	Annual Covered Payroll (c)	UAAL Percentage of Covered Payroll ((b-c)/c)
6/30/18	\$8,710,939	\$13,703,149	\$4,992,209	63.6%	\$2,752,235	181.4%
6/30/17	\$8,165,684	\$13,208,449	\$5,042,765	61.8%	\$2,667,612	189.0%
6/30/16	\$7,636,066	\$12,732,866	\$5,096,799	60.0%	\$2,601,404	195.9%
6/30/15	\$7,820,761	\$12,303,636	\$5,022,875	59.2%	\$2,575,031	174.1%
6/30/14	\$6,700,553	\$11,045,174	\$4,344,620	60.7%	\$2,507,899	173.2%
6/30/13	\$6,070,681	\$10,708,768	\$4,638,087	56.7%	\$2,501,742	185.4%
6/30/12	\$5,817,882	\$10,361,600	\$4,543,718	56.1%	\$2,487,757	182.6%
6/30/11	\$5,740,516	\$ 9,998,251	\$4,257,735	57.4%	\$2,517,779	169.1%
6/30/10	\$5,233,838	\$ 8,953,932	\$3,720,094	58.5%	\$2,481,384	149.9%
6/30/09	\$4,937,320	\$ 8,475,052	\$3,537,732	58.3%	\$2,448,287	144.5%

SCHEDULE OF FUNDING PROGRESS – OPEB PLAN (\$ in thousands)

Fiscal Year Ended	Actuarial Value of Assets (a)	Actuarial Accrued Liability (AAL) (b)	Unfunded AAL (UALL) (b-a)	Actuarial Value of Assets Percentage of AAL (a/b)	Annual Covered Payroll (c)	UAAL Percentage of Covered Payroll ((b-c)/c)
6/30/18	\$ 36,777	\$ 689,577	\$ 652,800	5.3%	\$2,752,235	23.7%
6/30/17	\$ 38,853	\$ 696,548	\$ 657,695	5.6%	\$2,667,612	24.7%
6/30/16	\$ 27,350	\$ 730,132	\$ 702,782	3.7%	\$2,601,404	27.0%
6/30/15	\$ 19,515	\$ 761,342	\$ 741,827	2.6%	\$2,575,031	28.8%
6/30/14	\$ 21,245	\$ 714,103	\$ 692,858	3.0%	\$2,507,899	27.6%
6/30/13	\$ 21,823	\$ 731,872	\$ 710,049	3.0%	\$2,501,742	28.4%
6/30/12	\$ 24,317	\$ 752,759	\$ 728,442	3.2%	\$2,487,757	29.3%
6/30/11	\$ 33,220	\$ 777,573	\$ 744,353	4.3%	\$2,517,779	29.6%
6/30/10	\$ 57,818	\$ 1,033,863	\$ 976,044	5.6%	\$2,481,384	39.3%
6/30/09	\$ 176,800	\$ 673,391	\$ 496,590	26.3%	\$2,448,287	20.3%

MEMBERSHIP COMPOSITION – PENSION PLAN

	JUNE 30	
	2018	2017
ACTIVE CONTRIBUTING MEMBERS:		
Employees	24,511	24,478
Teachers	17,752	17,617
Police Officers	4,197	4,151
Firefighters	1,661	1,640
TOTAL ACTIVE CONTRIBUTING MEMBERS*	48,121	47,886
*Excludes inactive		
RETIRED MEMBERS:		
Employees	18,193	17,573
Teachers	13,223	12,696
Police Officers	3,923	3,786
Firefighters	1,673	1,639
TOTAL RETIRED MEMBERS	37,012	35,694
TERMINATED MEMBERS ENTITLED TO BUT NOT YET RECEIVING BENEFITS:		
Employees	1,324	1,207
Teachers	947	941
Police Officers	127	115
Firefighters	22	18
TOTAL TERMINATED MEMBERS ENTITLED TO BUT NOT YET RECEIVING BENEFITS:	2,420	2,281
INACTIVE MEMBERS:		
Non-Vested Inactive Members	11,454	10,477
TOTAL TERMINATED AND INACTIVE MEMBERS	11,454	10,477

MEMBERSHIP COMPOSITION – OPEB PLAN

	JUNE 30	
	2018	2017
ACTIVE CONTRIBUTING MEMBERS:		
OPEB Plan	1,218	1,382
TOTAL ACTIVE CONTRIBUTING MEMBERS	1,218	1,382
RETIRED MEMBERS:		
OPEB Plan	9,869	9,965
TOTAL RETIRED MEMBERS	9,869	9,965
TERMINATED MEMBERS ENTITLED TO BUT NOT YET RECEIVING BENEFITS:		
OPEB Plan	2,934	2,937
TOTAL TERMINATED MEMBERS ENTITLED TO BUT NOT YET RECEIVING BENEFITS:	2,934	2,937
INACTIVE MEMBERS:		
Non-Vested Inactive Members	—	—
TOTAL TERMINATED AND INACTIVE MEMBERS	2,934	2,937

**SUMMARY OF PRINCIPAL PLAN
PROVISIONS AS INTERPRETED
FOR VALUATION PURPOSES**

1 – GENERAL

Legal Plan Name	New Hampshire Retirement System.
Plan Type	Cost-sharing multiple-employer defined benefit pension plan and Cost-sharing multiple-employer defined benefit OPEB plan.
Effective Date	July 1, 1967.
Membership	Prospectively, any employee or teacher becomes a Group I member as a condition of employment. Any employee appointed to an unclassified position with no fixed term on or after July 1, 2011 will also become a member of the retirement system as a condition of employment. Membership is optional for elected officials, officials appointed for fixed terms, unclassified state employees with no fixed term prior to July 1, 2011 or employees of the general court.
Average Final Compensation (AFC)	Average annual earnable compensation during highest 3 years of creditable service. For active members who commenced service on or after July 1, 2011 or who have non-vested status on or after January 1, 2012 — Average annual earnable compensation during the highest 5 years of creditable service.
NOTE:	A more detailed description of the plan provisions is available from the System's administrative office or by visiting www.nhrs.org .

2 – BENEFITS

GROUP I MEMBERS (EMPLOYEES AND TEACHERS)

Service Retirement

Eligibility	Age 60 years (age 65 for members commencing service on or after July 1, 2011).
Amount of Benefit	A member annuity equal to the actuarial equivalent of the member's accumulated contributions plus a state annuity. Prior to the member's attainment of age 65, the state annuity, together with the member annuity, shall be equal to 1/60 of AFC multiplied by years of service. (1/66 of AFC times creditable service for members commencing service on or after July 1, 2011.) After attainment of age 65, the state annuity, together with the member annuity, shall be equal to 1/66 of AFC multiplied by years of service.

Reduced Service Retirement

Eligibility	Age plus service of at least 70, provided the member has at least 20 years of service or age 50 with at least 10 years of service (age 60 with 30 years of creditable service for members commencing service on or after July 1, 2011).
Amount of Benefit	Service retirement benefit is reduced by the following percents for each month that benefits commence prior to age 60.

Years of Service at Retirement	Monthly Percent Reduction
35 or more	1/8 of 1%
30–35	1/4 of 1%
25–30	1/3 of 1%
20–25	5/12 of 1%
less than 20	5/9 of 1%

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

Ordinary Disability Retirement

Eligibility	10 years of service and permanent disability.
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Amount of Benefit Service retirement benefit if normal retirement age. Under age 60 a member annuity plus a state annuity which together equals 1.5% of AFC multiplied by the number of years of creditable service at the time of disability; provided that the benefit shall not be less than 25% of AFC.

Accidental Disability Retirement

Eligibility Permanently disabled due to accident occurring while in the performance of duty.

Amount of Benefit Service retirement benefit if age 60, otherwise a member annuity plus a state annuity which together equals 50% of AFC; provided that the benefit shall not be less than 50% of AFC.

Ordinary Death Benefit

Eligibility Death, other than accidental death.

Amount of Benefit

- (a) If 10 years of service or if eligible for service retirement and,
 - (i) if survived by a spouse, 50% of the service retirement benefit payable until death or remarriage;
 - (ii) if no surviving spouse or member designated a beneficiary other than a spouse, a lump sum equal to the greater of \$3,600 or the member's annual compensation.
- (b) If less than 10 years of service and if not eligible for service retirement, a lump sum equal to the greater of \$3,600 or the member's annual compensation.

Accidental Death Benefit

Eligibility Accidental death occurring while in the performance of duty.

Amount of Benefit Benefit equal to 50% of AFC.

Vested Deferred Retirement

Eligibility 10 years of service, if no withdrawal of contributions.

Amount of Benefit Payable at age 60, a member annuity plus a state annuity which together equals the service retirement benefit that would be payable after age 60. The benefit changes at age 65 as for service retirement. At any time after attainment of age 50 (age 60 for members hired on or after July 1, 2011), a member may have his benefit commence early, however, the benefit will be reduced for early commencement using the same early retirement reduction factors as described under reduced service retirement.

Return of Members' Contributions

- (a) Upon termination of service other than for retirement or death, and if vested deferred retirement benefit has not been elected, the member's accumulated contributions are returned to him.
- (b) Upon accidental death or upon other death for which no surviving spouse's benefit is payable, the member's accumulated contributions will be paid to the member's beneficiary or estate.
- (c) Upon death prior to age 60 of a member on deferred vested retirement, the member's accumulated contributions will be paid to the member's beneficiary or estate.
- (d) Upon death of a retired member (or the survivor of a retired member, if an optional benefit was elected), the excess of his accumulated contributions at retirement over the benefits received by the retired member (and, in the case of election of an optional benefit, the benefits received by the survivor) will be paid to the beneficiary or estate of the member.

Special Provisions Applicable to Certain Members Transferred from the Employees' Retirement System of the State of New Hampshire

Certain employee members transferred to the New Hampshire Retirement System effective January 1, 1976 have elected to have their benefits calculated on the basis of the provisions of the Predecessor System.

GROUP II MEMBERS (POLICE OFFICERS AND FIREFIGHTERS)

Service Retirement

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

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

The state annuity, together with the member annuity, shall be equal to 2-1/2% of AFC times creditable service up to 40 years (2% of AFC times creditable service up to 42.5 years for members commencing service on or after July 1, 2011). However, a member who commenced service on or after July 1, 2011 shall not receive a service retirement allowance until attaining the age of 52.5.

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

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

Effective July 1, 1992, if a member retires on a full service retirement, the minimum annual benefit (prior to reduction for optional form of payment) is \$10,000.

Reduced Service Retirement

Eligibility Members commencing service on or after July 1, 2011 after attaining age 52.5 with at least 25 years of creditable service.

Amount of Benefit The allowance shall be reduced for each month by which the benefit commencement date precedes the month after which the member attains 52.5 years of age, by 1/4 of 1%.

Ordinary Disability Retirement

Eligibility 10 years service and permanent disability.

Amount of Benefit A member annuity plus a state annuity which together equals the service retirement benefit; provided that the benefit shall not be less than 25% of the member's annual compensation.

Accidental Disability Retirement

Eligibility Permanent disability occurring while in the performance of duty.

Amount of Benefit Members hired prior to July 1, 2011 who have vested status as of January 1, 2012 are eligible for an accidental disability benefit and shall receive a benefit equal to 2/3 of AFC. If a member has more than 26-2/3 years of service, the member will

receive a supplemental disability benefit equal to 2-1/2% of AFC times years of creditable service in excess of 26-2/3 years but not in excess of 40 years. Members commencing service on or after July 1, 2011 are eligible for an accidental disability benefit and shall receive a benefit equal to 2/3 of AFC. If a member has more than 33-1/3 years of service, the member will receive a supplemental disability benefit equal to 2% of AFC times years of creditable service in excess of 33-1/3 years but not in excess of 42.5 years. Members hired prior to July 1, 2011 who have non-vested status as of January 1, 2012 are eligible for an accidental disability benefit and shall receive a benefit equal to 2/3 of AFC. The calculation of the supplemental allowance shall be as provided in the transition provisions with the number of years for the supplement adjusted proportionally.

Ordinary Death Benefit

Eligibility	Death other than accidental death.
Amount of Benefit	<p>(a) If 10 years service or if eligible for service retirement and,</p> <p>(i) if survived by a spouse, 50% of the service retirement benefit payable until death or remarriage.</p> <p>(ii) if no surviving spouse or member designated a beneficiary other than a spouse, a lump sum equal to the greater of \$3,600 or member's annual compensation.</p> <p>(b) If less than 10 years service and not eligible for service retirement, a lump sum equal to the greater of \$3,600 or the member's annual compensation.</p>

Accidental Death Benefit

Eligibility	Accidental death occurring while in the performance of duty.
Amount of Benefit	50% of the annual rate of compensation payable first to spouse until death or remarriage, then to children under age 18 or if no spouse or children, to dependent parent.

Death after Retirement

Retirement Prior to April 1, 1987

Lump sum of \$3,600 unless accidental disability retirement, then surviving spouse receives 50% of the retired member's disability benefits payable until death or remarriage.

Retirement 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 if member was married on the date of retirement plus a lump sum. The lump sum shall be equal to:

If retired prior to July 1, 1988:	\$ 3,600
If retired on or after July 1, 1988:	
If Group II member as of June 30, 1988	\$10,000
If becomes a Group II member after June 30, 1988 and prior to July 1, 1993	\$ 3,600

Special Death Benefit – Old Firefighter's System

Continuance of duty-connected disability benefits to spouse of deceased retired member payable until death or remarriage.

Vested Deferred Retirement

Eligibility	10 years of service, if no withdrawal of contributions.
Amount of Benefit	A benefit determined as for service retirement payable when the member would be age 45 with 20 years of service or age 60 if earlier.

Return of Members' Contributions

- (a) Upon termination of service other than for retirement or death, and if vested deferred retirement has not been elected, the member's accumulated contributions are returned to the member.
- (b) Upon accidental death or upon other death for which no surviving spouse's benefit is payable, the member's accumulated contributions will be paid to the member's beneficiary or estate.
- (c) Upon death of a member on vested deferred retirement prior to the time benefits commence, the member's accumulated contributions will be paid to the member's beneficiary or estate.
- (d) Upon death of the survivor of a member retired on accidental disability and his spouse in receipt of the accidental disability survivor benefit, the excess of the member's accumulated contributions at retirement over the benefits received by the member and the spouse will be paid to the beneficiary or estate.
- (e) Upon death of a retired member (or the survivor of a retired member, if an optional benefit was elected), the excess of accumulated contributions at retirement over the benefits received by the retired member (and, in the case of election of an optional benefit, the benefits received by the survivor) will be paid to the beneficiary or estate of the member.

3—CONTRIBUTIONS

GROUP I MEMBERS (EMPLOYEES AND TEACHERS)

By Members	7.0% of earnable compensation. Interest on member contributions shall be 2 percentage points less than either the most recent Board of Trustees approved assumed rate of return determined under RSA 100-A:16, II(h) or the actual rate of return, whichever is lower.
By Local Employer	
For Employee Members	100% of the normal contribution rate for their employees, plus accrued liability contributions, if any.
For Teacher Members	100% of the normal contribution rate for their employees, plus accrued liability contributions, if any.
By the State	
For Employee Members	100% of the normal contribution rate for its employees, plus accrued liability contributions, if any.
For Teacher Members	100% of the normal contribution rate for teachers employed by local employers, plus accrued liability contributions, if any.

GROUP II MEMBERS (POLICE OFFICERS AND FIREFIGHTERS)

By Members	
Firefighters	11.80% of earnable compensation.
Police Officers	11.55% of earnable compensation.
By Local Employer	100% of the normal contribution rate for their employees, plus accrued liability contributions, if any.
By the State	100% of both the normal and accrued liability contributions, if any.

OPEB PLAN PROVISIONS

Medical subsidy benefits provided under the OPEB plan are as follows:

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

The amounts above will not increase.

The following Group I members and their qualified spouses are eligible for coverage under the postemployment medical plan if they are receiving health coverage under the group plan offered by their former employer:

- Employee and teacher members of political subdivisions who were eligible to retire as of July 1, 2008 and who actually retired 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.
- 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 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.
- Surviving spouses of deceased employee and teacher members of political subdivisions who die while in service, provided that such surviving spouse was covered as the member's spouse in the employer-sponsored plan before the member's death and is entitled to a monthly allowance under Accidental Death, Ordinary Death, or an Optional Allowance.
- Surviving spouses and children of employee and teacher members of political subdivisions and employee members of the State 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, or upon the spouse's remarriage.
- Vested terminated employee members of the State (and spouses) who completed at least 20 years of creditable service and as of July 1, 2004 received an allowance and who subsequently attain age 60.
- Employee members of the State (and spouses) who retired on or before July 1, 2004 after completing at least 20 years of creditable service and who subsequently attained age 60; or after completing at least 30 years of creditable service and who subsequently attained age 55.
- 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.

The following Group II members are eligible for the postemployment medical plan:

- Group II police officer members (or beneficiaries) who are active or retired as of June 30, 2000.
- Group II firefighter members (or beneficiaries) who are active or retired as of June 30, 2000.
- Persons who prior to July 1, 1988, had completed at least 20 years of Group II service and were 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 had 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.

STATISTICAL section



NHRS has 467 participating employers – the State of New Hampshire, individual communities, school districts, counties, and other political subdivisions.

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**STATISTICAL
SECTION
SUMMARY**

The schedules that follow in this Statistical Section contain statistical and historical data that is considered useful in assessing the economic condition of the Pension and OPEB plan and for evaluating financial and demographic trends over longer periods of time. Included in this section are the following schedules:

- Schedules of Changes in Net Position for both plans for the past ten years
- Schedules of Benefit and Refund Deductions for both plans over the past ten years
- Schedules of Retired Members by Type of Benefit for both plans
- Schedules of Average Benefit Payment Amounts for both plans
- Schedules of the Principal Participating Employers for both plans
- A Listing of Participating Employers

The NHRS has prepared the data presented for the Changes in Net Position schedules, Benefit and Refund Deduction schedules, the Principal Participating Employers schedules and the Listing of Participating Employers. The schedules of Retired Members by Type of Benefit and the Schedules of Average Benefit Payments Amounts were prepared by the NHRS's actuary.

The investment climate over the past decade has been volatile. Investment returns for fiscal year 2018 (8.9%), fiscal year 2017 (13.5%), fiscal year 2016 (1.0%), and fiscal year 2015 (3.5%) have offset the losses experienced during the economic crisis and recession of fiscal years 2008–2009. Investment returns were positive overall for the decade and net investment income was able to achieve results above the assumed investment return assumption for that period. In absolute dollars, employer contributions to the pension plan have risen 115% over the decade, member contributions to the pension plan were 53% lower a decade ago. Pension benefits rose 64% over the decade. OPEB contributions have decreased 32% and benefits paid have decreased 14% over the decade.

The number of NHRS retirees continues to grow along with the average annual pension benefits paid out. The active membership rolls have remained fairly static throughout the decade and have increased slightly in fiscal year 2018. The number of participating employers remains stable.

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SCHEDULE OF CHANGES IN NET POSITION

CHANGES IN NET POSITION – PENSION PLAN LAST TEN FISCAL YEARS

	FY 2018	FY 2017	FY 2016	FY 2015
Additions:				
Employer Contributions	\$ 422,659	\$ 366,653	\$ 357,482	\$ 332,294
Member Contributions	217,572	213,061	207,949	204,063
Net Investment Income (Loss)	717,089	978,246	61,878	249,806
Net Position Transfers	—	—	—	—
Other	—	—	—	—
Total Additions to Net Position	\$ 1,357,320	\$ 1,557,960	\$ 627,309	\$ 786,163
Deductions:				
Pension Benefits	\$ 741,753	\$ 706,304	\$ 670,360	\$ 631,312
Refunds of Contributions	24,010	23,408	24,233	26,345
Administrative Expense	7,767	7,671	7,061	7,582
Professional Fees	687	644	950	1,318
Other	224	263	313	308
Total Deductions from Net Position	\$ 774,441	\$ 738,290	\$ 702,917	\$ 666,865
Change in Net Position	\$ 582,879	\$ 819,670	\$ (75,608)	\$ 119,298

CHANGES IN NET POSITION OPEB PLAN – LAST TEN FISCAL YEARS

	FY 2018	FY 2017	FY 2016	FY 2015
Additions:				
Employer Contributions	\$ 44,194	\$ 59,197	\$ 58,174	\$ 48,915
Net Investment Income (Loss)	3,129	4,045	148	1,119
Net Position Transfers	—	—	—	—
Other	—	—	—	—
Total Additions to Net Position	\$ 47,323	\$ 63,242	\$ 58,322	\$ 50,034
Deductions:				
Benefits Paid	\$ 49,251	\$ 50,560	\$ 51,805	\$ 53,297
Net Position Transfers	—	—	—	—
Administrative Expense	33	32	17	34
Professional Fees	3	4	2	5
Other	1	—	1	2
Total Deductions from Net Position	\$ 49,288	\$ 50,596	\$ 51,825	\$ 53,338
Change in Net Position	\$ (1,965)	\$ 12,646	\$ 6,497	\$ (3,304)

(in thousands)					
FY 2014	FY 2013	FY 2012	FY 2011	FY 2010	FY 2009
\$ 328,444	\$ 249,835	\$ 254,557	\$ 274,582	\$ 269,677	\$ 196,214
199,033	196,489	199,593	152,412	149,512	142,528
1,092,585	813,671	19,811	1,121,460	546,492	(\$ 962,057)
—	—	—	—	89,505	—
—	111	—	13,399	(1,292)	622
\$ 1,620,062	\$ 1,260,106	\$ 473,961	\$ 1,561,853	\$ 1,053,894	(\$ 622,693)
\$ 599,476	\$ 573,469	\$ 547,051	\$ 519,970	\$ 490,075	\$ 452,380
26,120	23,191	26,535	22,830	21,851	24,204
7,377	6,999	6,261	7,312	6,391	6,968
1,080	972	1,162	1,425	1,205	1,372
366	818	50	743	1,776	2,331
\$ 634,419	\$ 605,449	\$ 581,059	\$ 552,280	\$ 521,298	\$ 487,255
\$ 985,643	\$ 654,657	(\$ 107,098)	\$ 1,009,573	\$ 532,596	(\$ 1,109,948)

(in thousands)					
FY 2014	FY 2013	FY 2012	FY 2011	FY 2010	FY 2009
\$ 48,881	\$ 49,712	\$ 48,964	\$ 32,901	\$ 32,560	\$ 65,236
5,381	4,490	(164)	10,194	21,777	(33,179)
—	—	—	—	17,482	—
—	—	—	122	(51)	1,039
\$ 54,262	\$ 54,202	\$ 48,800	\$ 43,217	\$ 71,768	\$ 33,096
\$ 53,811	\$ 55,146	\$ 58,599	\$ 59,863	\$ 59,875	\$ 57,599
—	—	—	—	89,505	—
36	1,028	(23)	67	255	240
5	5	(33)	13	48	47
1	4	(5)	7	71	1,098
\$ 53,853	\$ 56,183	\$ 58,538	\$ 59,950	\$ 149,754	\$ 58,984
\$ 409	\$ (1,981)	\$ (9,738)	\$ (16,733)	\$ (77,986)	\$ (25,888)

SCHEDULE OF BENEFIT AND REFUND DEDUCTIONS BY TYPE

BENEFIT AND REFUND DEDUCTIONS BY TYPE – PENSION PLAN LAST TEN FISCAL YEARS

	FY 2018	FY 2017	FY 2016	FY 2015
Type of Benefit				
Age and Service Benefits:				
Service Retirement	\$ 452,862	\$ 425,306	\$ 398,056	\$ 368,298
Early Retirement	168,717	166,373	162,987	159,342
Survivors	41,693	39,420	36,989	34,572
Vested Deferred	29,321	27,581	25,937	24,161
Other	12,624	12,066	11,201	10,421
Death in Service Benefit	2,396	2,314	2,608	2,430
Disability Benefits				
Duty Related	22,216	21,843	21,599	21,152
Non Duty Related	9,772	9,410	9,200	9,047
Survivors	2,152	1,991	1,783	1,889
Total Benefits	\$ 741,753	\$ 706,304	\$ 670,360	\$ 631,312
Type of Refund				
Separation	\$ 18,504	\$ 19,032	\$ 18,856	\$ 20,121
Death	5,507	4,376	5,377	6,224
Total Refunds	\$ 24,011	\$ 23,408	\$ 24,233	\$ 26,345

BENEFIT AND REFUND DEDUCTIONS BY TYPE – OPEB PLAN LAST TEN FISCAL YEARS

	FY 2018	FY 2017	FY 2016	FY 2015
OPEB PLAN				
Type of Benefit				
Medical Subsidy Payments	\$ 49,251	\$ 50,560	\$ 51,805	\$ 53,298
Total Benefits	\$ 49,251	\$ 50,560	\$ 51,805	\$ 53,298

(in thousands)

FY 2014	FY 2013	FY 2012	FY 2011	FY 2010	FY 2009
\$ 344,810	\$ 325,542	\$ 308,230	\$ 287,736	\$ 270,523	\$ 249,909
156,539	154,821	150,023	145,483	138,643	125,471
32,444	30,738	29,128	28,986	27,079	25,160
22,463	20,730	19,446	19,217	18,063	17,042
9,585	8,800	7,826	6,803	5,882	5,040
1,744	1,719	1,800	1,654	1,326	2,000
20,837	20,674	20,374	19,769	18,682	18,043
9,080	8,787	8,581	8,676	8,312	8,261
1,974	1,658	1,643	1,646	1,565	1,454
\$ 599,476	\$ 573,469	\$ 547,051	\$ 519,970	\$ 490,075	\$ 452,380
\$ 21,429	\$ 18,133	\$ 20,299	\$ 18,362	\$ 18,580	\$ 20,364
4,691	5,058	6,236	4,468	3,271	3,840
\$ 26,120	\$ 23,191	\$ 26,535	\$ 22,830	\$ 21,851	\$ 24,204

(in thousands)

FY 2014	FY 2013	FY 2012	FY 2011	FY 2010	FY 2009
\$ 53,145	\$ 55,145	\$ 58,599	\$ 59,863	\$ 59,978	\$ 57,930
\$ 53,145	\$ 55,145	\$ 58,599	\$ 59,863	\$ 59,978	\$ 57,930

SCHEDULE OF RETIRED AND VESTED MEMBERS BY TYPE OF BENEFIT

SCHEDULE OF RETIRED AND VESTED MEMBERS BY TYPE OF BENEFITS AS OF JUNE 30, 2018 PENSION PLAN

Amount of Monthly Benefit	Number of Retirees	Type of Retirement*						
		1	2	3	4	5	6	7
EMPLOYEES								
\$1-500	5,397	4,245	48	2	13	—	579	510
501-1,000	5,530	4,212	265	111	11	2	445	484
1,001-1,500	3,345	2,624	88	235	12	4	184	198
1,501-2,000	1,949	1,632	24	92	6	3	112	80
2,001-2,500	1,203	1,066	9	25	—	2	71	30
2,501-3,000	767	698	6	6	1	1	44	11
3,001-3,500	489	458	—	4	1	—	22	4
3,501-4,000	357	334	2	1	—	—	17	3
Over 4,000	480	456	1	2	3	—	14	4
Totals	19,517	15,725	443	478	47	12	1,488	1,324
TEACHERS								
\$1-500	1,574	1,232	1	—	—	—	80	261
501-1,000	2,209	1,659	36	—	5	—	142	367
1,001-1,500	2,021	1,651	79	3	6	—	107	175
1,501-2,000	2,026	1,807	27	5	7	—	105	75
2,001-2,500	2,033	1,891	18	8	—	1	77	38
2,501-3,000	1,583	1,497	7	4	—	—	56	19
3,001-3,500	1,303	1,245	3	2	—	—	46	7
3,501-4,000	744	720	—	—	2	—	19	3
Over 4,000	677	658	—	—	—	—	17	2
Totals	14,170	12,360	171	22	20	1	649	947
POLICE OFFICERS								
\$1-500	223	182	—	—	—	2	38	1
501-1,000	371	198	12	1	—	—	145	15
1,001-1,500	408	188	24	5	2	1	142	46
1,501-2,000	351	212	18	31	2	1	64	23
2,001-2,500	406	293	9	57	1	1	24	21
2,501-3,000	440	302	2	91	—	—	33	12
3,001-3,500	398	337	—	45	2	3	9	2
3,501-4,000	328	290	1	26	1	—	8	2
Over 4,000	1,125	1,050	2	56	1	1	10	5
Totals	4,050	3,052	68	312	9	9	473	127
FIREFIGHTERS								
\$1-500	48	27	—	—	—	2	19	—
501-1,000	111	43	1	—	—	—	65	2
1,001-1,500	166	66	7	3	1	4	75	10
1,501-2,000	164	72	8	10	—	1	69	4
2,001-2,500	169	104	7	19	1	3	33	2
2,501-3,000	163	128	1	23	—	—	10	1
3,001-3,500	162	137	1	17	—	2	4	1
3,501-4,000	148	133	—	10	—	1	2	2
Over 4,000	564	538	—	15	1	—	10	—
Totals	1,695	1,248	25	97	3	13	287	22

* Type of Retirement: 1—Service and early retirement. 2—Ordinary disability retirement. 3—Accidental disability retirement. 4—Ordinary death in active service. 5—Accidental death in active service. 6—Beneficiaries of deceased members who retired on a service or disability allowance. 7—Vested member with future benefit.

Option Selected #										
No Option	Option 1	Option 2	Option 3	Option 4	Option 5	Option 6	Option 7	Option 8	Option 9	Other*
3,087	126	350	125	863	311	13	12	—	—	510
3,059	98	401	123	978	365	15	7	—	—	484
1,724	70	293	101	672	278	6	3	—	—	198
964	32	192	81	433	158	6	3	—	—	80
514	12	146	55	322	118	2	4	—	—	30
313	15	102	39	194	91	1	1	—	—	11
185	5	87	26	133	48	1	—	—	—	4
129	6	59	23	96	40	1	—	—	—	3
160	4	81	40	121	67	2	1	—	—	4
10,135	368	1,711	613	3,812	1,476	47	31	—	—	1,324
674	29	110	42	350	98	5	5	—	—	261
1,158	45	123	35	384	89	6	2	—	—	367
982	45	168	58	453	132	4	4	—	—	175
940	50	170	50	528	202	2	9	—	—	75
886	35	179	74	576	233	4	8	—	—	38
662	37	140	54	461	205	1	4	—	—	19
551	23	123	51	407	133	2	6	—	—	7
317	17	83	24	197	102	—	1	—	—	3
312	7	78	28	163	87	—	—	—	—	2
6,482	288	1,174	416	3,519	1,281	24	39	—	—	947
150	1	9	14	23	25	—	—	—	—	1
271	5	15	10	21	31	1	2	—	—	15
268	9	14	15	18	38	—	—	—	—	46
204	11	8	26	17	62	—	—	—	—	23
190	18	12	54	14	95	—	2	—	—	21
189	22	11	70	15	121	—	—	—	—	12
138	15	8	97	9	128	—	1	—	—	2
108	8	2	72	8	128	—	—	—	—	2
285	17	12	320	17	467	2	—	—	—	5
1,803	106	91	678	142	1,095	3	5	—	—	127
40	—	3	—	1	4	—	—	—	—	—
105	—	1	—	1	2	—	—	—	—	2
124	5	7	7	8	5	—	—	—	—	10
120	8	5	7	8	12	—	—	—	—	4
92	10	8	20	7	30	—	—	—	—	2
60	8	4	29	9	52	—	—	—	—	1
46	7	3	41	3	61	—	—	—	—	1
48	5	2	29	1	61	—	—	—	—	2
153	11	2	144	5	247	1	1	—	—	—
788	54	35	277	43	474	1	1	—	—	22

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%

* Elections for vested members with future benefits are made at commencement of benefits.

SCHEDULE OF RETIRED MEMBERS BY TYPE OF BENEFITS AS OF JUNE 30, 2018
OPEB PLAN

Amount of Monthly Benefit	Number of Retirees	One Person		Two Person	
		Pre 65	Post 65	Pre 65	Post 65
TOTAL – OPEB PLAN					
\$1-500	8,223	589	7,504	13	117
501-1,000	1,614	53	480	707	374
1,001-1,500	24	3	8	5	8
1,501-2,000	8	—	—	8	—
Over \$2,000	—	—	—	—	—
Total	9,869	645	7,992	733	499

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SCHEDULES OF AVERAGE BENEFIT PAYMENT AMOUNTS

SCHEDULE OF AVERAGE BENEFIT PAYMENT AMOUNTS PENSION PLAN – EMPLOYEES

2018 Service	Years Credited Service							Total
	0–4 yrs.	5–9 yrs.	10–14 yrs.	15–19 yrs.	20–24 yrs.	25–29 yrs.	30 or more yrs.	
Average monthly benefit	\$318	\$460	\$625	\$933	\$1,216	\$1,667	\$2,474	\$1,141
Average annual benefit	\$3,818	\$5,520	\$7,496	\$11,200	\$14,588	\$20,000	\$29,685	\$13,693
Average final average salary	\$44,843	\$43,280	\$42,387	\$48,307	\$51,342	\$58,159	\$67,251	\$50,683
Number of retired members	1,296*	1,810	4,393	2,957	2,900	1,835	3,002	18,193**

*Includes 332 members who did not have service reported.

**Includes 6,341 members who did not have FAS reported.

2017 Service	Years Credited Service							Total
	0–4 yrs.	5–9 yrs.	10–14 yrs.	15–19 yrs.	20–24 yrs.	25–29 yrs.	30 or more yrs.	
Average monthly benefit	\$313	\$453	\$618	\$919	\$1,197	\$1,636	\$2,443	\$1,121
Average annual benefit	\$3,758	\$5,442	\$7,415	\$11,030	\$14,364	\$19,637	\$29,321	\$13,451
Average final average salary	\$43,797	\$42,845	\$41,884	\$47,851	\$50,369	\$56,958	\$66,591	\$50,123
Number of retired members	1,264*	1,779	4,275	2,833	2,793	1,740	2,889	17,573**

*Includes 310 members who did not have service reported.

**Includes 6,504 members who did not have FAS reported.

2016 Service	Years Credited Service							Total
	0–4 yrs.	5–9 yrs.	10–14 yrs.	15–19 yrs.	20–24 yrs.	25–29 yrs.	30 or more yrs.	
Average monthly benefit	\$310	\$460	\$634	\$957	\$1,253	\$1,757	\$2,575	\$1,152
Average annual benefit	\$3,724	\$5,516	\$7,613	\$11,481	\$15,038	\$21,084	\$30,898	\$13,823
Average final average salary	\$42,832	\$42,359	\$41,637	\$47,544	\$49,410	\$52,267	\$65,846	\$49,468
Number of retired members	1,260*	1,706	4,007	2,573	2,520	1,514	2,562	16,142**

*Includes 292 members who did not have service reported.

**Includes 5,892 members who did not have FAS reported.

2015 Service	Years Credited Service							Total
	0–4 yrs.	5–9 yrs.	10–14 yrs.	15–19 yrs.	20–24 yrs.	25–29 yrs.	30 or more yrs.	
Average monthly benefit	\$299	\$451	\$622	\$941	\$1,234	\$1,718	\$2,519	\$1,122
Average annual benefit	\$3,592	\$5,409	\$7,466	\$11,288	\$14,811	\$20,622	\$30,227	\$13,462
Average final average salary	\$44,554	\$43,186	\$41,904	\$47,573	\$49,030	\$55,589	\$64,928	\$49,559
Number of retired members	1,227*	1,638	3,881	2,457	2,448	1,419	2,413	15,483**

*Includes 273 members who did not have service reported.

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

2014 Service	Years Credited Service							Total
	0–4 yrs.	5–9 yrs.	10–14 yrs.	15–19 yrs.	20–24 yrs.	25–29 yrs.	30 or more yrs.	
Average monthly benefit	\$326	\$418	\$591	\$878	\$1,158	\$1,568	\$2,319	\$1,078
Average annual benefit	\$3,911	\$5,019	\$7,088	\$10,532	\$13,902	\$18,812	\$27,833	\$12,932
Average final average salary	\$35,623	\$41,017	\$41,061	\$46,293	\$48,678	\$55,009	\$64,041	\$48,488
Number of retired members	992*	1,497	3,835	2,426	2,546	1,475	2,543	15,314**

*Includes 192 members who did not have service reported.

**Includes 7,334 members who did not have FAS reported.

2013 Service	Years Credited Service						30 or more yrs.	Total
	0-4. yrs.	5-9 yrs.	10-14 yrs.	15-19 yrs.	20-24 yrs.	25-29 yrs.		
Average monthly benefit	\$324	\$409	\$584	\$863	\$1,150	\$1,558	\$2,303	\$1,063
Average annual benefit	\$3,883	\$4,906	\$7,013	\$10,359	\$13,801	\$18,691	\$27,633	\$12,758
Average final average salary	\$35,604	\$39,229	\$40,738	\$45,238	\$47,897	\$54,324	\$63,541	\$47,906
Number of retired members	968*	1,444	3,705	2,345	2,434	1,394	2,422	14,712**

* Includes 172 members who did not have service reported.

** Includes 7,506 members who did not have FAS reported.

2012 Service	Years Credited Service						30 or more yrs.	Total
	0-4. yrs.	5-9 yrs.	10-14 yrs.	15-19 yrs.	20-24 yrs.	25-29 yrs.		
Average monthly benefit	\$343	\$400	\$576	\$854	\$1,142	\$1,535	\$2,274	\$1,049
Average annual benefit	\$4,114	\$4,804	\$6,911	\$10,243	\$13,706	\$18,421	\$27,284	\$12,591
Average final average salary	\$34,356	\$38,505	\$39,797	\$44,567	\$46,998	\$52,948	\$62,444	\$47,037
Number of retired members	992*	1,389	3,511	2,261	2,340	1,323	2,325	14,141**

* Includes 194 members who did not have service reported.

** Includes 7,748 members who did not have FAS reported.

2011 Service	Years Credited Service						30 or more yrs.	Total
	0-4. yrs.	5-9 yrs.	10-14 yrs.	15-19 yrs.	20-24 yrs.	25-29 yrs.		
Average monthly benefit	\$336	\$393	\$571	\$837	\$1,126	\$1,519	\$2,257	\$1,039
Average annual benefit	\$4,032	\$4,719	\$6,856	\$10,049	\$13,517	\$18,228	\$27,079	\$12,474
Average final average salary	\$32,512	\$37,153	\$38,954	\$43,438	\$45,838	\$51,964	\$61,282	\$46,178
Number of retired members	936*	1,341	3,334	2,144	2,226	1,277	2,229	13,487**

* Includes 172 members who did not have service reported.

** Includes 7,913 members who did not have FAS reported.

2010 Service	Years Credited Service						30 or more yrs.	Total
	0-4. yrs.	5-9 yrs.	10-14 yrs.	15-19 yrs.	20-24 yrs.	25-29 yrs.		
Average monthly benefit	\$335	\$386	\$561	\$822	\$1,110	\$1,495	\$2,222	\$1,017
Average annual benefit	\$4,017	\$4,632	\$6,738	\$9,861	\$13,321	\$17,938	\$26,660	\$12,208
Average final average salary	\$32,068	\$35,498	\$37,739	\$41,663	\$44,745	\$50,812	\$60,543	\$45,062
Number of retired members	900*	1,291	3,169	2,059	2,091	1,213	2,079	12,802**

* Includes 161 members who did not have service reported.

** Includes 8,088 members who did not have FAS reported.

2009 Service	Years Credited Service						30 or more yrs.	Total
	0-4. yrs.	5-9 yrs.	10-14 yrs.	15-19 yrs.	20-24 yrs.	25-29 yrs.		
Average monthly benefit	\$325	\$374	\$547	\$802	\$1,084	\$1,438	\$2,152	\$975
Average annual benefit	\$3,897	\$4,493	\$6,568	\$9,627	\$13,008	\$17,259	\$25,826	\$11,697
Average final average salary	\$31,667	\$35,280	\$36,695	\$40,033	\$43,215	\$48,520	\$58,876	\$43,547
Number of retired members	876*	1,299	3,051	1,971	1,942	1,139	1,914	12,192**

* Includes 141 members who did not have service reported.

** Includes 8,241 members who did not have FAS reported.

**SCHEDULE OF AVERAGE BENEFIT PAYMENT AMOUNTS
PENSION PLAN – TEACHERS**

2018 Service	Years Credited Service						30 or more yrs.	Total
	0-4. yrs.	5-9 yrs.	10-14 yrs.	15-19 yrs.	20-24 yrs.	25-29 yrs.		
Average monthly benefit	\$504	\$574	\$742	\$1,154	\$1,513	\$1,940	\$2,796	\$1,836
Average annual benefit	\$6,050	\$6,882	\$8,906	\$13,850	\$18,160	\$23,278	\$33,551	\$22,025
Average final average salary	\$51,800	\$57,933	\$51,273	\$60,591	\$64,454	\$69,267	\$73,802	\$65,890
Number of retired members	298*	366	1,611	1,660	2,542	2,227	4,519	13,223**

* Includes 139 members who did not have service reported.

** Includes 4,747 members who did not have FAS reported.

2017 Service	Years Credited Service						30 or more yrs.	Total
	0-4. yrs.	5-9 yrs.	10-14 yrs.	15-19 yrs.	20-24 yrs.	25-29 yrs.		
Average monthly benefit	\$504	\$573	\$733	\$1,140	\$1,502	\$1,927	\$2,765	\$1,817
Average annual benefit	\$6,051	\$6,870	\$8,799	\$13,679	\$18,018	\$23,127	\$33,176	\$21,804
Average final average salary	\$52,263	\$57,449	\$50,750	\$59,866	\$63,691	\$68,520	\$72,099	\$65,211
Number of retired members	292*	360	1,556	1,557	2,437	2,165	4,329	12,696**

* Includes 135 members who did not have service reported.

** Includes 4,808 members who did not have FAS reported.

2016 Service	Years Credited Service						30 or more yrs.	Total
	0-4. yrs.	5-9 yrs.	10-14 yrs.	15-19 yrs.	20-24 yrs.	25-29 yrs.		
Average monthly benefit	\$499	\$586	\$755	\$1,193	\$1,626	\$2,097	\$2,905	\$1,928
Average annual benefit	\$5,986	\$7,029	\$9,065	\$14,316	\$19,508	\$25,166	\$34,860	\$23,134
Average final average salary	\$51,934	\$56,982	\$49,999	\$59,017	\$62,964	\$67,641	\$72,517	\$64,533
Number of retired members	278*	333	1,422	1,375	2,161	1,897	\$3,944	\$11,410**

* Includes 125 members who did not have service reported.

** Includes 4,080 members who did not have FAS reported.

2015 Service	Years Credited Service						30 or more yrs.	Total
	0-4. yrs.	5-9 yrs.	10-14 yrs.	15-19 yrs.	20-24 yrs.	25-29 yrs.		
Average monthly benefit	\$485	\$570	\$743	\$1,172	\$1,603	\$2,072	\$2,883	\$1,913
Average annual benefit	\$5,825	\$6,840	\$8,919	\$14,059	\$19,239	\$24,868	\$34,595	\$22,961
Average final average salary	\$52,242	\$56,107	\$49,238	\$58,293	\$62,540	\$67,126	\$71,943	\$64,076
Number of retired members	259*	307	1,346	1,280	2,079	1,808	3,780	10,859**

* Includes 108 members who did not have service reported.

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

2014 Service	Years Credited Service						30 or more yrs.	Total
	0-4. yrs.	5-9 yrs.	10-14 yrs.	15-19 yrs.	20-24 yrs.	25-29 yrs.		
Average monthly benefit	\$457	\$531	\$702	\$1,081	\$1,459	\$1,872	\$2,702	\$1,783
Average annual benefit	\$5,480	\$6,367	\$8,419	\$12,976	\$17,506	\$22,467	\$32,419	\$21,401
Average final average salary	\$51,979	\$56,039	\$48,107	\$57,182	\$61,625	\$66,117	\$71,311	\$63,299
Number of retired members	239*	289	1,342	1,241	2,126	1,889	3,839	10,965**

* Includes 100 members who did not have service reported.

** Includes 4,974 members who did not have FAS reported.

2013 Service	Years Credited Service						30 or more yrs.	Total
	0–4 yrs.	5–9 yrs.	10–14 yrs.	15–19 yrs.	20–24 yrs.	25–29 yrs.		
Average monthly benefit	\$433	\$526	\$691	\$1,051	\$1,454	\$1,862	\$2,686	\$1,780
Average annual benefit	\$5,200	\$6,315	\$8,295	\$12,615	\$17,451	\$22,347	\$32,229	\$21,355
Average final average salary	\$51,604	\$55,373	\$47,276	\$55,688	\$60,708	\$64,999	\$70,712	\$62,669
Number of retired members	214*	255	1,260	1,155	2,045	1,795	3,683	10,407**

* Includes 86 members who did not have service reported.

** Includes 5,020 members who did not have FAS reported.

2012 Service	Years Credited Service						30 or more yrs.	Total
	0–4 yrs.	5–9 yrs.	10–14 yrs.	15–19 yrs.	20–24 yrs.	25–29 yrs.		
Average monthly benefit	\$434	\$491	\$684	\$1,039	\$1,447	\$1,856	\$2,673	\$1,777
Average annual benefit	\$5,203	\$5,892	\$8,214	\$12,473	\$17,363	\$22,272	\$32,080	\$21,320
Average final average salary	\$51,428	\$53,206	\$46,917	\$54,779	\$59,762	\$64,214	\$70,113	\$62,128
Number of retired members	207*	236	1,190	1,100	1,951	1,703	3,569	9,956**

* Includes 88 members who did not have service reported.

** Includes 5,098 members who did not have FAS reported.

2011 Service	Years Credited Service						30 or more yrs.	Total
	0–4 yrs.	5–9 yrs.	10–14 yrs.	15–19 yrs.	20–24 yrs.	25–29 yrs.		
Average monthly benefit	\$432	\$484	\$670	\$1,023	\$1,439	\$1,848	\$2,664	\$1,777
Average annual benefit	\$5,185	\$5,804	\$8,044	\$12,271	\$17,272	\$22,178	\$31,972	\$21,321
Average final average salary	\$50,528	\$53,243	\$45,371	\$53,207	\$58,790	\$63,226	\$69,426	\$61,398
Number of retired members	188*	214	1,111	1,021	1,859	1,608	3,426	9,427**

* Includes 79 members who did not have service reported.

** Includes 5,148 members who did not have FAS reported.

2010 Service	Years Credited Service						30 or more yrs.	Total
	0–4 yrs.	5–9 yrs.	10–14 yrs.	15–19 yrs.	20–24 yrs.	25–29 yrs.		
Average monthly benefit	\$417	\$478	\$664	\$1,005	\$1,435	\$1,847	\$2,656	\$1,781
Average annual benefit	\$5,001	\$5,733	\$7,970	\$12,064	\$17,224	\$22,162	\$31,869	\$21,375
Average final average salary	\$50,790	\$52,875	\$44,197	\$51,833	\$57,897	\$62,372	\$68,973	\$60,970
Number of retired members	171*	203	1,040	965	1,793	1,570	3,345	9,087**

* Includes 72 members who did not have service reported.

** Includes 5,182 members who did not have FAS reported.

2009 Service	Years Credited Service						30 or more yrs.	Total
	0–4 yrs.	5–9 yrs.	10–14 yrs.	15–19 yrs.	20–24 yrs.	25–29 yrs.		
Average monthly benefit	\$422	\$477	\$653	\$984	\$1,409	\$1,817	\$2,591	\$1,736
Average annual benefit	\$5,069	\$5,729	\$7,838	\$11,805	\$16,910	\$21,804	\$31,096	\$20,830
Average final average salary	\$49,132	\$52,820	\$43,328	\$50,592	\$57,660	\$61,404	\$67,107	\$59,692
Number of retired members	155*	179	986	931	1,702	1,477	3,077	8,507**

* Includes 69 members who did not have service reported.

** Includes 5,217 members who did not have FAS reported.

**SCHEDULE OF AVERAGE BENEFIT PAYMENT AMOUNTS
PENSION PLAN – POLICE OFFICERS**

2018 Service	Years Credited Service							Total
	0-4 yrs.	5-9 yrs.	10-14 yrs.	15-19 yrs.	20-24 yrs.	25-29 yrs.	30 or more yrs.	
Average monthly benefit	\$975	\$1,394	\$1,625	\$2,276	\$3,175	\$4,664	\$6,186	\$3,027
Average annual benefit	\$11,697	\$16,728	\$19,503	\$27,317	\$38,095	\$55,973	\$74,231	\$36,328
Average final average salary	\$53,160	\$57,073	\$55,252	\$67,465	\$81,875	\$96,419	\$108,214	\$79,703
Number of retired members	423*	205	444	369	1,564	675	243	3,923**

* Includes 274 members who did not have service reported.

** Includes 1,791 members who did not have FAS reported.

2017 Service	Years Credited Service							Total
	0-4 yrs.	5-9 yrs.	10-14 yrs.	15-19 yrs.	20-24 yrs.	25-29 yrs.	30 or more yrs.	
Average monthly benefit	\$979	\$1,368	\$1,623	\$2,230	\$3,135	\$4,611	\$6,184	\$2,992
Average annual benefit	\$11,744	\$16,412	\$19,473	\$26,759	\$37,625	\$55,333	\$74,205	\$35,903
Average final average salary	\$52,922	\$56,688	\$55,024	\$66,556	\$81,206	\$95,886	\$108,399	\$79,145
Number of retired members	404*	206	437	354	1,499	653	233	3,786**

* Includes 263 members who did not have service reported.

** Includes 1,801 members who did not have FAS reported.

2016 Service	Years Credited Service							Total
	0-4 yrs.	5-9 yrs.	10-14 yrs.	15-19 yrs.	20-24 yrs.	25-29 yrs.	30 or more yrs.	
Average monthly benefit	\$966	\$1,424	\$6,619	\$2,253	\$3,089	\$4,554	\$6,144	\$2,978
Average annual benefit	\$11,828	\$17,092	\$19,428	\$27,032	\$37,065	\$54,651	\$73,724	\$35,737
Average final average salary	\$52,067	\$56,071	\$54,163	\$65,196	\$80,290	\$95,097	\$107,758	\$78,292
Number of retired members	384*	188	418	326	1,458	633	232	3,629**

* Includes 245 members who did not have service reported.

** Includes 1,771 members who did not have FAS reported.

2015 Service	Years Credited Service							Total
	0-4 yrs.	5-9 yrs.	10-14 yrs.	15-19 yrs.	20-24 yrs.	25-29 yrs.	30 or more yrs.	
Average monthly benefit	\$929	\$1,380	\$1,607	\$2,256	\$3,032	\$4,501	\$5,999	\$2,917
Average annual benefit	\$11,149	\$16,561	\$19,287	\$27,067	\$36,380	\$54,010	\$71,987	\$35,002
Average final average salary	\$53,397	\$57,211	\$53,878	\$64,646	\$78,872	\$94,266	\$107,053	\$77,621
Number of retired members	362*	188	396	314	1,395	599	203	3,457**

* Includes 222 members who did not have service reported.

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

2014 Service	Years Credited Service							Total
	0-4 yrs.	5-9 yrs.	10-14 yrs.	15-19 yrs.	20-24 yrs.	25-29 yrs.	30 or more yrs.	
Average monthly benefit	\$1,003	\$1,380	\$1,519	\$2,111	\$2,964	\$4,362	\$5,623	\$2,929
Average annual benefit	\$12,039	\$16,555	\$18,226	\$25,335	\$35,571	\$52,347	\$67,472	\$35,154
Average final average salary	\$42,303	\$51,636	\$49,456	\$60,358	\$76,729	\$90,857	\$99,377	\$77,381
Number of retired members	286*	160	355	270	1,383	601	227	3,282**

* Includes 190 members who did not have service reported.

** Includes 1,816 members who did not have FAS reported.

2013 Service	Years Credited Service						30 or more yrs.	Total
	0-4 yrs.	5-9 yrs.	10-14 yrs.	15-19 yrs.	20-24 yrs.	25-29 yrs.		
Average monthly benefit	\$989	\$1,402	\$1,525	\$2,096	\$2,937	\$4,304	\$5,557	\$2,905
Average annual benefit	\$11,867	\$16,827	\$18,305	\$25,149	\$35,240	\$51,642	\$66,680	\$34,859
Average final average salary	\$43,717	\$51,752	\$49,166	\$60,656	\$76,404	\$90,096	\$98,639	\$77,294
Number of retired members	273*	159	336	271	1,319	584	221	3,163**

* Includes 177 members who did not have service reported.

** Includes 1,825 members who did not have FAS reported.

2012 Service	Years Credited Service						30 or more yrs.	Total
	0-4 yrs.	5-9 yrs.	10-14 yrs.	15-19 yrs.	20-24 yrs.	25-29 yrs.		
Average monthly benefit	\$986	\$1,414	\$1,520	\$2,101	\$2,936	\$4,235	\$5,469	\$2,894
Average annual benefit	\$11,835	\$16,968	\$18,238	\$25,218	\$35,230	\$50,824	\$65,631	\$34,731
Average final average salary	\$43,717	\$51,792	\$48,430	\$59,074	\$75,343	\$89,117	\$98,085	\$76,294
Number of retired members	238*	151	325	255	1,255	547	210	2,981**

* Includes 145 members who did not have service reported.

** Includes 1,766 members who did not have FAS reported.

2011 Service	Years Credited Service						30 or more yrs.	Total
	0-4 yrs.	5-9 yrs.	10-14 yrs.	15-19 yrs.	20-24 yrs.	25-29 yrs.		
Average monthly benefit	\$957	\$1,386	\$1,482	\$2,072	\$2,893	\$4,082	\$5,432	\$2,823
Average annual benefit	\$11,485	\$16,635	\$17,788	\$24,867	\$34,719	\$48,981	\$65,188	\$33,876
Average final average salary	\$47,377	\$52,498	\$46,123	\$58,423	\$74,403	\$87,050	\$97,076	\$75,213
Number of retired members	230*	149	314	251	1,218	523	195	2,880**

* Includes 140 members who did not have service reported.

** Includes 1,794 members who did not have FAS reported.

2010 Service	Years Credited Service						30 or more yrs.	Total
	0-4 yrs.	5-9 yrs.	10-14 yrs.	15-19 yrs.	20-24 yrs.	25-29 yrs.		
Average monthly benefit	\$942	\$1,352	\$1,483	\$2,034	\$2,845	\$3,940	\$5,114	\$2,724
Average annual benefit	\$11,310	\$16,222	\$17,792	\$24,413	\$34,137	\$47,277	\$61,371	\$32,689
Average final average salary	\$44,656	\$50,016	\$45,342	\$57,278	\$70,960	\$85,452	\$93,848	\$72,439
Number of retired members	218*	145	305	241	1,140	482	171	2,702**

* Includes 129 members who did not have service reported.

** Includes 1,814 members who did not have FAS reported.

2009 Service	Years Credited Service						30 or more yrs.	Total
	0-4 yrs.	5-9 yrs.	10-14 yrs.	15-19 yrs.	20-24 yrs.	25-29 yrs.		
Average monthly benefit	\$931	\$1,337	\$1,453	\$2,026	\$2,816	\$3,768	\$5,068	\$2,665
Average annual benefit	\$11,166	\$16,048	\$17,438	\$24,309	\$33,797	\$45,213	\$60,811	\$31,980
Average final average salary	\$42,229	\$50,574	\$44,919	\$56,748	\$70,720	\$82,705	\$91,617	\$71,464
Number of retired members	200*	139	293	232	1,093	455	153	2,565**

* Includes 115 members who did not have service reported.

** Includes 1,808 members who did not have FAS reported.

**SCHEDULE OF AVERAGE BENEFIT PAYMENT AMOUNTS
PENSION PLAN – FIREFIGHTERS**

2018 Service	Years Credited Service						30 or more yrs.	Total
	0-4. yrs.	5-9 yrs.	10-14 yrs.	15-19 yrs.	20-24 yrs.	25-29 yrs.		
Average monthly benefit	\$1,157	\$1,364	\$1,841	\$2,226	\$2,836	\$4,221	\$6,203	\$3,314
Average annual benefit	\$13,884	\$16,363	\$22,089	\$26,713	\$34,027	\$50,652	\$74,438	\$39,764
Average final average salary	\$56,847	\$57,722	\$62,269	\$71,690	\$79,817	\$92,171	\$102,765	\$86,094
Number of retired members	158*	31	99	132	624	418	211	1,673**

* Includes 139 members who did not have service reported.

** Includes 920 members who did not have FAS reported.

2017 Service	Years Credited Service						30 or more yrs.	Total
	0-4. yrs.	5-9 yrs.	10-14 yrs.	15-19 yrs.	20-24 yrs.	25-29 yrs.		
Average monthly benefit	\$1,154	\$1,407	\$1,830	\$2,189	\$2,788	\$4,165	\$6,055	\$3,253
Average annual benefit	\$13,843	\$16,879	\$21,957	\$26,625	\$33,456	\$49,985	\$72,654	\$39,033
Average final average salary	\$55,226	\$59,323	\$61,155	\$69,692	\$79,089	\$91,311	\$101,821	\$85,145
Number of retired members	150*	31	96	129	625	406	202	1,639**

* Includes 131 members who did not have service reported.

** Includes 931 members who did not have FAS reported.

2016 Service	Years Credited Service						30 or more yrs.	Total
	0-4. yrs.	5-9 yrs.	10-14 yrs.	15-19 yrs.	20-24 yrs.	25-29 yrs.		
Average monthly benefit	\$1,147	\$1,353	\$1,789	\$2,185	\$2,765	\$4,138	\$5,965	\$3,213
Average annual benefit	\$13,768	\$16,230	\$21,466	\$26,218	\$33,174	\$49,655	\$71,577	\$38,553
Average final average salary	\$55,226	\$57,997	\$60,126	\$70,005	\$78,510	\$91,235	\$100,861	\$84,646
Number of retired members	143*	30	96	125	617	391	193	1,595**

* Includes 124 members who did not have service reported.

** Includes 935 members who did not have FAS reported.

2015 Service	Years Credited Service						30 or more yrs.	Total
	0-4. yrs.	5-9 yrs.	10-14 yrs.	15-19 yrs.	20-24 yrs.	25-29 yrs.		
Average monthly benefit	\$1,132	\$1,417	\$1,750	\$2,114	\$2,735	\$4,101	\$5,681	\$3,130
Average annual benefit	\$13,579	\$17,007	\$20,997	\$25,371	\$32,821	\$49,215	\$68,168	\$37,557
Average final average salary	\$55,075	\$59,425	\$61,768	\$68,985	\$77,441	\$90,785	\$96,758	\$83,520
Number of retired members	139*	30	91	119	611	389	172	1,551**

* Includes 120 members who did not have service reported.

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

2014 Service	Years Credited Service						30 or more yrs.	Total
	0-4. yrs.	5-9 yrs.	10-14 yrs.	15-19 yrs.	20-24 yrs.	25-29 yrs.		
Average monthly benefit	\$1,068	\$1,450	\$1,724	\$2,004	\$2,687	\$3,997	\$5,494	\$3,047
Average annual benefit	\$12,812	\$17,405	\$20,686	\$24,051	\$32,249	\$47,960	\$65,932	\$35,562
Average final average salary	\$45,602	\$64,928	\$56,150	\$65,849	\$75,732	\$89,221	\$93,573	\$81,886
Number of retired members	128*	29	87	119	589	383	158	1,493**

* Includes 106 members who did not have service reported.

** Includes 958 members who did not have FAS reported.

2013 Service	Years Credited Service						30 or more yrs.	Total
	0-4 yrs.	5-9 yrs.	10-14 yrs.	15-19 yrs.	20-24 yrs.	25-29 yrs.		
Average monthly benefit	\$1,050	\$1,513	\$1,720	\$2,007	\$2,685	\$4,053	\$5,336	\$3,050
Average annual benefit	\$12,597	\$18,154	\$20,640	\$24,080	\$32,216	\$48,683	\$64,036	\$36,595
Average final average salary	\$49,479	\$64,928	\$55,062	\$62,052	\$75,328	\$90,016	\$93,076	\$81,986
Number of retired members	120*	30	82	116	577	364	158	1,447**

* Includes 99 members who did not have service reported.

** Includes 956 members who did not have FAS reported.

2012 Service	Years Credited Service						30 or more yrs.	Total
	0-4 yrs.	5-9 yrs.	10-14 yrs.	15-19 yrs.	20-24 yrs.	25-29 yrs.		
Average monthly benefit	\$1,062	\$1,523	\$1,701	\$2,072	\$2,672	\$3,956	\$5,192	\$3,038
Average annual benefit	\$12,740	\$18,280	\$20,416	\$24,865	\$32,067	\$47,475	\$62,306	\$36,461
Average final average salary	\$50,146	\$51,114	\$53,705	\$64,002	\$74,611	\$88,513	\$92,039	\$80,981
Number of retired members	96*	29	78	110	564	343	156	1,376**

* Includes 77 members who did not have service reported.

** Includes 931 members who did not have FAS reported.

2011 Service	Years Credited Service						30 or more yrs.	Total
	0-4 yrs.	5-9 yrs.	10-14 yrs.	15-19 yrs.	20-24 yrs.	25-29 yrs.		
Average monthly benefit	\$1,063	\$1,519	\$1,600	\$2,062	\$2,656	\$3,846	\$4,971	\$2,967
Average annual benefit	\$12,751	\$18,225	\$19,194	\$24,749	\$31,877	\$46,151	\$59,651	\$35,599
Average final average salary	\$50,146	\$51,114	\$49,051	\$64,919	\$73,582	\$86,853	\$90,415	\$79,520
Number of retired members	90*	30	73	111	555	328	149	1,336**

**Includes 71 members who did not have service reported.

**Includes 942 members who did not have FAS reported.

2010 Service	Years Credited Service						30 or more yrs.	Total
	0-4 yrs.	5-9 yrs.	10-14 yrs.	15-19 yrs.	20-24 yrs.	25-29 yrs.		
Average monthly benefit	\$1,020	\$1,487	\$1,607	\$2,041	\$2,592	\$3,770	\$4,749	\$2,871
Average annual benefit	\$12,244	\$17,846	\$19,283	\$24,493	\$31,109	\$45,240	\$56,983	\$34,454
Average final average salary	\$55,668	\$47,729	\$50,024	\$62,405	\$71,694	\$86,042	\$89,392	\$78,232
Number of retired members	80*	28	73	109	530	304	130	1,254**

* Includes 62 members who did not have service reported.

** Includes 946 members who did not have FAS reported.

2009 Service	Years Credited Service						30 or more yrs.	Total
	0-4 yrs.	5-9 yrs.	10-14 yrs.	15-19 yrs.	20-24 yrs.	25-29 yrs.		
Average monthly benefit	\$967	\$1,439	\$1,585	\$1,998	\$2,537	\$3,707	\$4,592	\$2,794
Average annual benefit	\$11,607	\$17,274	\$19,025	\$23,973	\$30,440	\$44,489	\$55,102	\$33,533
Average final average salary	\$55,668	\$46,372	\$48,616	\$63,891	\$70,685	\$83,078	\$88,852	\$76,730
Number of retired members	78*	28	72	107	534	295	123	1,237

** Includes 60 members who did not have service reported.

** Includes 963 members who did not have FAS reported.

SCHEDULES OF AVERAGE BENEFIT PAYMENT AMOUNTS – OPEB PLAN

	Service	2018	0-4 yrs**	5-9 yrs
Average Monthly Benefit			\$349	\$381
Annual Benefits			\$711,727	\$662,965
Number of retired members			170	145
**Includes 47 members who did not have service reported				
	Service	2017	0-4 yrs**	5-9 yrs
Average Monthly Benefit			\$360	\$383
Annual Benefits			\$756,048	\$702,293
Number of retired members			175	153
**Includes 48 members who did not have service reported				
	Service	2016	0-4 yrs.**	5-9 yrs.
Average Monthly Benefit			\$366	\$393
Annual Benefits			\$776,997	\$749,533
Number of retired members			177	159
**Includes 44 members who did not have service reported				
	Service	2015	0-4 yrs.**	5-9 yrs.
Average Monthly Benefit			\$373	\$392
Annual Benefits			\$805,749	\$789,827
Number of retired members			180	168
**Includes 43 members who did not have service reported				
	Service	2014	0-4 yrs.**	5-9 yrs.
Average Monthly Benefit			\$415	\$424
Annual Benefits			\$811,354	\$804,819
Number of retired members			163	158
**Includes 35 members who did not have service reported				
	Service	2013	0-4 yrs.**	5-9 yrs.
Average Monthly Benefit			\$433	\$448
Annual Benefits			\$941,225	\$934,509
Number of retired members			181	174
**Includes 37 members who did not have service reported				
	Service	2012	0-4 yrs.**	5-9 yrs.
Average Monthly Benefit			\$395	\$446
Annual Benefits			\$1,074,690	\$904,456
Number of retired members			227	169
**Includes 94 members who did not have service reported				
	Service	2011	0-4 yrs.**	5-9 yrs.
Average Monthly Benefit			\$406	\$451
Annual Benefits			\$1,158,273	\$941,454
Number of retired members			238	174
**Includes 103 members who did not have service reported				
	Service	2010	0-4 yrs.**	5-9 yrs.
Average Monthly Benefit			\$415	\$467
Annual Benefits			\$1,226,420	\$964,536
Number of retired members			246	172
**Includes 108 members who did not have service reported				
	Service	2009	0-4 yrs.**	5-9 yrs.
Average Monthly Benefit			\$413	\$478
Annual Benefit			\$1,269,340	\$987,552
Number of retired members			256	172
**Includes 116 members who did not have service reported				

10-14 yrs	15-19 yrs	20-24 yrs	2018 25-29 yrs	30 or more yrs	Total
\$404	\$410	\$404	\$419	\$415	\$410
\$1,201,937	\$1,072,127	\$15,719,934	\$10,963,933	\$18,261,256	\$48,593,879
248	218	3,241	2,182	3,665	9,869

10-14 yrs	15-19 yrs	20-24 yrs	2017 25-29 yrs	30 or more yrs	Total
\$405	\$406	\$407	\$420	\$420	\$413
\$1,264,225	\$1,076,033	\$16,063,911	\$11,095,969	\$18,677,378	\$49,635,957
260	221	3,289	2,204	3,703	10,005

10-14 yrs.	15-19 yrs.	20-24 yrs.	2016 25-29 yrs.	30 or more yrs.	Total
\$408	\$410	\$411	\$423	\$430	\$419
\$1,302,304	\$1,131,240	\$16,480,299	\$11,351,956	\$19,325,316	\$51,117,645
266	230	3,345	2,237	3,746	10,160

10-14 yrs.	15-19 yrs.	20-24 yrs.	2015 25-29 yrs.	30 or more yrs.	Total
\$426	\$416	\$415	\$425	\$436	\$424
\$1,375,276	\$1,112,003	\$16,906,473	\$11,528,248	\$19,732,252	\$52,249,828
269	223	3,396	2,259	3,770	10,265

10-14 yrs.	15-19 yrs.	20-24 yrs.	2014 25-29 yrs.	30 or more yrs.	Total
\$442	\$424	\$427	\$434	\$451	\$438
\$1,426,682	\$1,103,825	\$17,210,363	\$11,720,646	\$20,711,693	\$53,789,382
269	217	3,360	2,252	3,824	10,243

10-14 yrs.	15-19 yrs.	20-24 yrs.	2013 25-29 yrs.	30 or more yrs.	Total
\$446	\$428	\$434	\$440	\$467	\$448
\$1,488,868	\$1,124,533	\$17,352,821	\$11,824,268	\$21,523,385	\$55,189,609
278	219	3,332	2,241	3,839	10,264

10-14 yrs.	15-19 yrs.	20-24 yrs.	2012 25-29 yrs.	30 or more yrs.	Total
\$449	\$438	\$445	\$446	\$481	\$458
\$1,509,858	\$1,181,439	\$18,133,415	\$12,107,889	\$22,532,887	\$57,444,634
280	225	3,394	2,264	3,902	10,461

10-14 yrs.	15-19 yrs.	20-24 yrs.	2011 25-29 yrs.	30 or more yrs.	Total
\$458	\$445	\$457	\$456	\$497	\$470
\$1,555,067	\$1,221,548	\$18,843,776	\$12,433,418	\$23,543,318	\$59,696,854
283	229	3,434	2,273	3,946	10,577

10-14 yrs.	15-19 yrs.	20-24 yrs.	2010 25-29 yrs.	30 or more yrs.	Total
\$464	\$450	\$463	\$461	\$503	\$476
\$1,607,489	\$1,229,834	\$18,996,737	\$12,510,895	\$24,025,062	\$60,560,973
289	228	3,416	2,264	3,977	10,592

10-14 yrs.	15-19 yrs.	20-24 yrs.	2009 25-29 yrs.	30 or more yrs.	Total
\$469	\$456	\$464	\$459	\$499	\$475
\$1,652,986	\$1,257,711	\$18,526,187	\$12,131,928	\$22,354,408	\$58,180,112
294	230	3,324	2,202	3,731	10,209

PRINCIPAL PARTICIPATING EMPLOYERS

PRINCIPAL PARTICIPATING EMPLOYERS – PENSION PLAN CURRENT YEAR AND NINE YEARS AGO

	As Of June 30, 2018			As Of June 30, 2009		
	# of Covered	Percentage of Total		# of Covered	Percentage of Total	
Participating Government	Employees	Rank	Pension Plan	Employees	Rank	Pension Plan
State of New Hampshire	10,869	1	22.59%	12,130	1	23.77%
SAU 42 (Nashua School District)	1,282	2	2.66%	1,341	3	2.63%
Manchester School District	1,261	3	2.62%	1,407	2	2.76%
Timberlane School District	654	4	1.36%	672	4	1.32%
City of Dover	627	5	1.30%	—	—	—
City of Nashua	616	6	1.28%	604	8	1.18%
Merrimack School District	614	7	1.28%	658	5	1.29%
Concord School District	594	8	1.23%	616	6	1.21%
SAU 54 (Rochester School District)	581	9	1.21%	592	9	1.16%
Merrimack County	570	10	1.18%	591	10	1.16%
All Other*	30,453		63.29%	32,421		63.53%
Total (467 Governments)	48,121		100.00%	51,032		100.00%

*As of June 30, 2018, "All Other" consisted of:

Type	Number	Employees
City Governments	11	2,404
Town Governments & Related Entities	244	5,650
County Governments & Related Entities	11	2,699
School Districts & School Administrative Units	191	19,700
Total	457	30,453

PRINCIPAL PARTICIPATING EMPLOYERS – OPEB PLAN CURRENT YEAR AND NINE YEARS AGO

	As Of June 30, 2018			As Of June 30, 2009		
	# of Covered	Percentage of Total		# of Covered	Percentage of Total	
Participating Government	Employees	Rank	OPEB Plan	Employees	Rank	OPEB Plan
State of New Hampshire	2,519	1	25.52%	2,849	1	27.86%
Manchester School District	482	2	4.88%	496	2	4.85%
SAU 42 (Nashua School District)	400	3	4.05%	344	3	3.36%
City of Nashua	300	4	3.04%	223	5	2.18%
City of Manchester	299	5	3.03%	305	4	2.98%
Concord School District	199	6	2.02%	191	7	1.87%
City of Concord	192	7	1.95%	192	6	1.88%
Keene School District	177	8	1.79%	158	8	1.55%
Portsmouth School District	146	9	1.48%	145	9	1.42%
Town of Salem	127	10	1.29%	122	10	1.19%
All Other*	5,028		50.95%	5,201		50.86%
Total (357 Governments)	9,869		100.00%	10,226		100.00%

*As of June 30, 2018, "All Other" consisted of:

Type	Number	Employees
City Governments	14	594
Town Governments & Related Entities	134	1,081
County Governments & Related Entities	11	237
School Districts & School Administrative Units	188	3,116
Total	347	5,028

A full list of participating employers as of June 30, 2018 begins on page 117.

LISTING OF PARTICIPATING EMPLOYERS

STATE GOVERNMENT

State of New Hampshire E, P, F
 Community College System of
 New Hampshire E
 Community Development Finance
 Authority E
 Land & Community Heritage
 Investment Program E
 New Hampshire Retirement System E
 Pease Development Authority E

CITIES AND TOWNS (AND RELATED ENTITIES)

Albany E
 Alexandria E, P
 Allentown E, P, F
 Alstead P
 Alton E, P
 Amherst P, F
 Andover P
 Androscoggin Valley Regional Refuse
 Disposal Dist. E
 Antrim E, P
 Ashland E, P
 Ashland Electric Department E
 Atkinson E, P
 Auburn E, P, F
 Barnstead E, P, F
 Barrington E, P, F
 Bartlett P, F
 BCEP Solid Waste District E
 Bedford E, P, F
 Belmont E, P, F
 Bennington E, P
 Berlin E, P, F
 Berlin Housing Authority E
 Berlin Water Works E
 Bethlehem E, P, F
 Boscawen E, P
 Bow E, P, F
 Bradford P
 Brentwood E, P, F
 Bristol E, P, F

Brookline E, P, F
 Brookline Public Library E
 Campton E, P
 Campton-Thornton Fire
 Department E, F
 Canaan E, P
 Candia P
 Canterbury E, P
 Carroll E, P, F
 Center Conway Fire Precinct F
 Center Harbor P
 Central Hooksett Water Precinct E
 Charlestown E, P
 Chester E, P, F
 Chesterfield E, P
 Chichester E, P
 Claremont E, P, F
 Clarksville E
 Colebrook E, P
 Concord E, P, F
 Concord Regional Solid Waste
 Resource Recovery Facility E
 Conway E, P
 Conway Village Fire District E, F
 Cook Memorial Library E
 Cornish E
 Croydon E
 Danville P
 Deerfield E, P
 Deering P
 Derry E, P, F
 Derry Housing Authority E
 Dorchester E
 Dover E, T, P, F
 Dover Housing Authority E
 Dublin E, P
 Dunbarton E, P
 Durham E, P, F
 East Kingston E, P
 Effingham P
 Eidelweiss Village District E
 Enfield E, P

Epping E, P, F
 Epsom E, P, F
 Exeter E, P, F
 Farmington P, F
 Fitzwilliam E, P
 Francestown E, P
 Franconia P
 Franklin E, P, F
 Freedom P
 Fremont P
 Gilford E, P, F
 Gilmanton E, P, F
 Goffstown E, P, F
 Goffstown Village Water Precinct E
 Gorham E, P, F
 Goshen E
 Grafton E, P
 Grantham E, P
 Greenfield E, P
 Greenland E, P
 Greenville E, P
 Groton E, P
 Hampstead E, P, F
 Hampton E, P, F
 Hampton Falls E, P, F
 Hancock P
 Hanover E, P, F
 Harrisville P
 Haverhill E, P
 Hebron E, P
 Henniker E, P, F
 Hillsborough P, F
 Hinsdale E, P
 Holderness E, P
 Hollis E, P, F
 Hooksett E, P, F
 Hooksett Public Library E
 Hooksett Sewer Commission E
 Hooksett Village Water Precinct E
 Hopkinton E, P, F
 Hudson E, P, F

Jackson E, P, F	Monroe E	Plymouth Village Water & Sewer E
Jaffrey E, P, F	Mont Vernon E, P	Portsmouth E, P, F
Jefferson E	Moultonborough E, P, F	Portsmouth Housing Authority E
Keene E, P, F	Nashua E, P, F	Raymond E, P, F
Kensington P	Nashua Airport Authority E	Richmond P
Kingston E, F, P	Nashua Housing Authority E	Rindge E, P, F
Laconia E, P, F	Nelson E	Rochester E, P, F
Laconia Housing & Redevelopment E	New Boston P	Rockingham Planning Commission E
Laconia Water Works E	New Castle E, P, F	Rollinsford E, P
Lakes Region Mutual Fire Aid E, F	New Durham E, P	Rumney E, P
Lakes Region Planning Commission E	New Hampton E, P	Rye E, P, F
Lancaster E, P, F	New Ipswich E, P	Rye Water District E
Langdon P	New London E, P, F	Salem E, P, F
Lebanon E, P, F	New London-Springfield Water Precinct E	Salem Housing Authority E
Lee E, P, F	Newbury P	Salisbury E
Lempster E	Newfields E, P	Sanbornton E, P, F
Lincoln E, P	Newington E, P, F	Sanbornton Public Library E
Lisbon P	Newmarket E, P, F	Sandown E, P, F
Litchfield E, P, F	Newport E, P, F	Sandown Public Library E
Littleton E, P, F	Newton E, P	Sandwich P, F
Littleton Public Library E	New Hampshire Municipal Bond Bank E	Seabrook P, F
Littleton Water & Light Department E	North Conway Water Precinct/ Fire Department E, F	Shelburne E
Londonderry E, P, F	North Hampton E, P, F	Somersworth E, P, F
Loudon E, P, F	Northfield E, P	Somersworth Housing Authority E
Lyme E, P	Northumberland E, P	South Hampton P
Lyndeborough P	Northwood E, P, F	Southern NH Planning Commission E
Madison E, P	Nottingham P, F	Springfield E, P
Manchester P, F	Orford E, P	Stark E
Marlborough E, P	Ossipee E, P	Stewartstown E
Marlow E	Pelham E, P, F	Strafford P, F
Mason P	Pembroke E, P, F	Stratford E
Maxfield Public Library E	Peterborough E, P, F	Stratham E, P
Meredith E, P, F	Piermont P	Sugar Hill E, P
Meriden Village Water District E	Pittsburg E, P	Sunapee E, P
Merrimack E, P, F	Pittsfield E, P, F	Sutton P
Merrimack Village District E	Plainfield E, P	Swanzey P, F
Middleton P	Plaistow E, P, F	SWNH District Fire Mutual Aid E, F
Milford E, P, F	Plaistow Public Library E	Tamworth E, P, F
Milford Area Communication Center E	Plymouth E, P, F	Thornton E, P
Milton E, F, P		Thornton Public Library E
		Tilton E, P

Tilton/Northfield Fire District E, F
 Troy E, P
 Troy Water & Sewer E
 Tuffonboro E, P, F
 Unity E
 Village District of Eastman E
 Wakefield E, P, F
 Walpole E, P
 Warner E, P
 Warner Village Water District E
 Warren P
 Washington E, P
 Waterville Estates Village District E
 Waterville Valley E, P, F
 Weare E, P
 Webster E, P
 Weeks Public Library E
 Westmoreland E
 Whitefield E, P, F
 Wilmot E, P
 Wilton P
 Winchester E, P
 Windham E, P, F
 Wolfeboro E, P, F
 Woodstock E, P
 Woodsville Fire District E
 Woodsville Water & Light Department E

**COUNTY GOVERNMENTS
 (AND RELATED ENTITIES)**

Belknap County E, P
 Belknap County Conservation District E
 Carroll County E, P
 Cheshire County E, P
 Coos County E, P
 Coos County Nursing Home E
 Grafton County E, P
 Hillsborough County E, P
 Merrimack County E, P
 Rockingham County E, P

Strafford County E, P
 Sullivan County E, P

SCHOOL DISTRICTS

Allenstown School District T
 Alton School District E, T
 Amherst School District E, T
 Andover School District E, T
 Ashland School District E, T
 Auburn School District E, T
 Barnstead School District E, T
 Barrington School District E, T
 Bartlett School District E, T
 Bath School District E, T
 Bedford School District E, T
 Bethlehem School District E, T
 Bow School District E, T
 Brentwood School District E, T
 Brookline School District E, T
 Campton School District E, T
 Candia School District E, T
 Chester School District E, T
 Chesterfield School District T
 Chichester School District E, T
 Claremont School District E, T
 Cocheco Academy of the Arts T
 Colebrook School District T
 Concord School District E, T
 Contoocook Valley Regional School District E, T
 Conway School District E, T
 Cornish School District E, T
 Croydon School District T
 Deerfield School District T
 Dresden School District E, T
 Dunbarton School District T
 East Kingston School District E, T
 Epping School District E, T
 Epsom School District T
 Errol School District T
 Exeter School District E, T

Exeter Regional Co-Op School District E, T
 Fall Mountain Regional School District E, T
 Farmington School District E, T
 Franklin School District E, T
 Freedom School District E, T
 Fremont School District E, T
 Gilford School District E, T
 Gilmanton School District E, T
 Goffstown School District E, T
 Governor Wentworth Regional School District E, T
 Grantham School District E, T
 Great Bay eLearning Charter School T
 Greenland School District E, T
 GRS Cooperative School District E, T
 Hampstead School District E, T
 Hampton Falls School District E, T
 Hampton School District E, T
 Hanover School District E, T
 Harrisville School District E, T
 Haverhill Coop School District E, T
 Henniker School District E, T
 Hill School District E, T
 Hillsboro-Deering School District E, T
 Hinsdale School District E, T
 Holderness School District E, T
 Hollis School District E, T
 Hollis/Brookline Coop School District E, T
 Hooksett School District E, T
 Hopkinton School District E, T
 Hudson School District E, T
 Inter-Lakes School District E, T
 Jackson School District E, T
 Jaffrey-Rindge Coop School District E, T
 John Stark Regional School District E, T

Kearsarge Regional Cooperative School District E, T	Newmarket School District E, T	Stratham School District E, T
Keene School District E, T	Newport School District E, T	Sunapee School District E, T
Kensington School District E, T	Next Charter School T	Tamworth School District E, T
Laconia School District E, T	North Country Charter Academy T	Thornton School District E, T
Lafayette Regional Cooperative School District E, T	North Country Education Service E, T	Timberlane Regional School District E, T
Landaff School District T	North Hampton School District E, T	Unity School District E, T
Lebanon School District E, T	Northumberland School District E, T	Virtual Learning Academy Charter School T
Lempster School District E, T	Northwood School District E, T	Wakefield School District E, T
Lincoln Woodstock Coop School District E, T	Nottingham School District E, T	Warren School District E, T
Lisbon Regional School District E, T	Oyster River Coop School District E, T	Washington School District E, T
Litchfield School District E, T	Pelham School District E, T	Waterville Valley School District E, T
Littleton School District E, T	Pembroke School District E, T	Weare School District T
Londonderry School District E, T	Pemi-Baker Regional School District E, T	Wentworth School District E, T
Lyme School District E, T	Piermont School District E, T	Westmoreland School District E, T
Madison School District E, T	Pittsburg School District E, T	White Mountains Regional School District E, T
Manchester School District E, T	Pittsfield School District E, T	Wilton-Lyndeborough School District E, T
Marlborough School District E, T	Plainfield School District E, T	Winchester School District E, T
Marlow School District E, T	Plymouth School District E, T	Windham School District E, T
Mascenic Regional School District E, T	Portsmouth School District E, T	Winnacunnet Coop School District E, T
Mascoma Valley School District E, T	Profile Coop School District E, T	Winnisquam Regional School District E, T
Mason School District E, T	Propsect Mountain High School E, T	
Merrimack School District E, T	Raymond School District E, T	SCHOOL ADMINISTRATIVE UNITS
Merrimack Valley School District E, T	Rivendell Interstate School District T	SAU 2 E
Middleton School District E, T	Rollinsford School District E, T	SAU 3 E, T
Milan School District E, T	Rumney School District E, T	SAU 6 E
Milford School District E, T	Rye School District E, T	SAU 7 E, T
Milton School District E, T	Salem School District E, T	SAU 9 E, T
Monadnock Regional School District E, T	Sanborn Regional School District E, T	SAU 10 E, T
Monroe School District E, T	Seabrook School District E, T	SAU 13 E, T
Mont Vernon School District E, T	Seacoast Charter School T	SAU 15 E
Moultonborough School District E, T	Shaker Regional School District E, T	SAU 16 E, T
Nelson School District T	Somersworth School District E, T	SAU 19 E, T
New Boston School District E, T	Souhegan Cooperative School District E, T	SAU 20 E
New Castle School District E, T	South Hampton School District E, T	SAU 21 E
Newfields School District E, T	Stark School District E, T	SAU 23 E, T
Newfound Area School District E, T	Stewartstown School District T	SAU 24 E, T
Newington School District E, T	Stoddard School District E, T	SAU 29 E, T
	Strafford School District E, T	
	Stratford School District E, T	

SAU 34 E
SAU 35 E, T
SAU 39 E
SAU 41 E
SAU 42 E, T
SAU 44 E, T
SAU 46 E
SAU 48 E, T
SAU 50 E, T
SAU 53 E, T
SAU 54 E, T
SAU 55 E
SAU 56 E, T
SAU 58 E
SAU 67 E, T
SAU 70 E, T

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