

Washington State Department of Retirement Systems

# Comprehensive Annual Financial Report 

Funds of the State of Washington for the Year Ended June 30, 2017


# Comprehensive Annual Financial Report 

Funds of the State of Washington for the Fiscal Year Ended June 30, 2017

Prepared by:
Washington State Department of Retirement Systems
PO Box 48380
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www.drs.wa.gov

## Table of Contents

## INTRODUCTORY SECTION

3 Director's Message
4 Washington State Department of Retirement Systems' Organization
5 Pension System Roles and Responsibilities
8 Letter of Transmittal
11 Professional Award
122017 Washington State Legislative Actions

## FINANCIAL SECTION

15 Independent Auditors' Report
17 Management's Discussion and Analysis
Basic Financial Statements
(Notes to the financial statements are an integral part of the basic financial statements)
21 Statement of Fiduciary Net Position - Pension Trust Funds by Plan
25 Statement of Changes in Fiduciary Net Position - Pension Trust Funds by Plan
Notes to the Financial Statements
29 Note 1: Summary of Significant Accounting Policies and Plan Asset Matters
47 Note 2: General Description of the Retirement Systems
Required Supplementary Information
82 Schedules of Changes in Net Pension Liability
88 Schedules of Net Pension Liability
91 Schedules of Employer Contributions
98 Schedule of Investment Returns
99 Notes to Required Supplementary Information
Supporting Schedules
100 Schedule of Administrative Expenses
101 Schedule of Investment Expenses - Pension Trust Funds
102 Schedule of Payments to Consultants

## INVESTMENT SECTION

105 Report on Investment Activity
110 Summary of Investment Policies
112 Investment Professionals
114 Schedule of Investment Management Fees and Commissions
115 Schedule of Broker Volume and Equity Commissions Paid
120 Summary of Investments Owned - Pension Trust Funds

## Table of Contents (cont.)

ACTUARIAL SECTION
129 State Actuary's Certification Letter
133 Summary of Plan Provisions
135 Summary of Actuarial Assumptions and Methods
Additional Actuarial Schedules
145 Schedules of Active Member Valuation Data
150 Schedule of Retirees and Beneficiaries Added to and Removed from Rolls
155 Solvency Tests
159 Analysis of Selected Experience
162 Schedules of Funding Progress
166 Funded Status and Funding Progress
168 Additional Information for the Defined Benefit Pension Plans
170 Required Contribution Rates
STATISTICAL SECTION
173 Statistical Section Table of Contents
174 Schedules of Changes in Fiduciary Net Position
190 Distribution of Membership by System and Plan
192 Principal Participating Employers by Plan
198 Number of Participating Employers
202 Employers Covered by DRS-Administered Retirement Systems
214 Schedules of Benefit Recipients by Type of Benefit
221 Schedules of Average Benefit Payments to Service Retirees in Year of Retirement
234 Schedules of Benefit Expenses and Refunds by Type
Deferred Compensation Program
242 Deferred Compensation Program Status Report
244 DCP Performance
245 DCP Net Asset Growth and Automatic Enrollment

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## RETIREMENT by the Numbers

## 8=

## Benefit Payments by County

This map illustrates all benefit payments made to retirees and survivors in fiscal year 2017.


Out of Country
\$4.8
Dollars in millions

| \$0-\$10 |  |
| :---: | ---: |
| 1. Adams | $\$ 7.6$ |
| 2. Columbia | $\$ 4.6$ |
| 3. Ferry | $\$ 4.8$ |
| 4. Garfield | $\$ 1.8$ |
| 5. $i$ incoln | $\$ 9.4$ |
| 6. Pend Orielle | $\$ 8.1$ |
| 7. San Juan | $\$ 8.3$ |
| 8. Skamania | $\$ 4.9$ |
| 9. Wahkiakum | $\mathbf{\$ 3 . 3}$ |

\$10.1-\$15

| 10. Asotin | $\$ 10.3$ |
| :--- | :--- |
| 11. Klickitat | $\$ 12.8$ |

\$15.1-\$25

| 12. Jefferson | $\mathbf{\$ 2 1 . 8}$ |
| :--- | :--- |
| 13. Pacific | $\mathbf{\$ 1 7 . 8}$ |
| 14. Stevens | $\mathbf{\$ 2 0 . 7}$ |
| 15. Whitman | $\mathbf{\$ 2 4 . 7}$ |

\$25.1-\$50

| 16. Chelan | $\mathbf{\$ 3 1 . 6}$ |
| :--- | ---: |
| 17. Franklin | $\mathbf{\$ 2 7 . 9}$ |
| 18. Grant | $\mathbf{\$ 4 9 . 2}$ |
| 19. Kittitas | $\mathbf{\$ 3 4 . 0}$ |
| 20. Okanogan | $\mathbf{\$ 2 8 . 2}$ |
| 21. Walla Walla | $\mathbf{\$ 3 7 . 0}$ |


| \$50.1-\$100 |  |
| :---: | :---: |
| 22. Clallam | \$51.1 |
| 23. Benton | \$103.8 |
| 24. Cowlitz | \$57.8 |
| 25. Douglas | \$61.0 |
| 26. Grays Harbor | \$56.2 |
| 27. Island | \$54.0 |
| 28. Lewis | \$58.7 |
| 29. Mason | \$52.7 |
| 30. Skagit | \$78.0 |
| 31. Whatcom | \$96.3 |

\$100.1- 300
$\begin{array}{ll}\text { 32. Clark } & \mathbf{\$ 1 5 0 . 7} \\ \text { 33. Kitsap } & \mathbf{\$ 1 2 0 . 4} \\ \text { 34. Spokane } & \mathbf{\$ 2 5 8 . 3}\end{array}$
$\begin{array}{ll}\text { 34. Spokane } & \$ 258.3 \\ \text { 35. Yakima } & \$ 123.8\end{array}$
\$300.1+
36. King
37. Pierce
38. Snohomish \$329.0
$\$ 796.0$
$\$ 416.4$
39. Thurston $\$ 369.7$

## BILLION IN

## Introductory Section

## Director's Message

In the past year, DRS' efforts to promote retirement readiness among our members took a significant jump forward as Washington adopted automatic enrollment for the state's Deferred Compensation supplemental savings program (also known as DCP).

Approved by the Legislature and signed into law by Gov. Jay Inslee in 2016, the DCP automatic enrollment program officially launched in January 2017. With this new feature, every newly hired state employee is automatically enrolled in DCP with a contribution rate of $3 \%$ of salary; the default investment for these enrollees is a target date fund that best aligns with an assumed retirement age of 65 .

Of course, these participants have the ability to change their deferral amounts - or to completely opt out of their automatic enrollment. However, experience from other plans around the country shows that the vast majority of auto-enrollees stay in the program. And the initial experience here in Washington bears that out.

During the first six months of DCP automatic enrollment, more than 6,000 new state employees have been enrolled in the program - and about $87 \%$ have stayed in. This compares with a voluntary enrollment rate of $4 \%$ to $6 \%$ over the past several years.

DCP automatic enrollment is another example of how DRS continues to move forward on our key goals: Elated Customers, Engaged Team Members, Vigilant Resource Steward, Best Practice Leader and Reliable Partner.

Shortly after DRS publishes this Comprehensive Annual Financial Report, we will begin the initial rollout of a new Employer Reporting Application (ERA) that will significantly improve the way employers transmit member retirement information to us. At the same time, we are laying the groundwork to identify and seamlessly move to the next phase of modernizing our legacy systems as ERA becomes fully operational.

The past year brought an opportunity to strengthen the


DRS organizational structure as well.

Going forward, we are reshaping the Legal and Legislative Services group into two units - a Legislative and Stakeholder Relations section and a Legal Services team. This new structure will allow these units to focus on a growing workload in both the legislative and legal arenas.

As a customer-satisfaction-driven organization, we are persistent in looking for ways to seek out and leverage customer feedback to help DRS continuously improve operations and services. In addition to our regular monthly satisfaction interviews with recently retired members, we are now reaching out to customers about the benefit estimate process and how we could make it better.

The completion of this year's CAFR marks my first full year on the job as Director of DRS. During this time, I've been continually impressed by our team members and the great work they do every day to support our customers, partners, policymakers, stakeholders and others. Many thanks to Team DRS for your contributions over the past year.

Also, a special appreciation to our members and retirees - the hundreds of thousands of men and women around Washington who work to support our communities and our state. Thank you!

Sincerely,


Tracy Guerin Director
October 17, 2017

## Washington State Department of Retirement Systems' Organization



Leadership Team Member
Special Reporting Requirements to the Director

## Pension System Roles and Responsibilities

| Pension System Roles and Responsibilities - Page 1 of 3 |  |  |
| :---: | :---: | :---: |
| Organization and Contact Information | Responsibility | Membership/Executive |
| Department of Retirement Systems <br> PO Box 48380 <br> Olympia, WA 98504-8380 <br> Phone: 360.664.7000 or 800.547.6657 <br> Website: www.drs.wa.gov | Collects and accounts for employer and employee contributions, maintains retirement records, pays benefits, communicates pension information, provides investment education, and administers the Deferred Compensation Program | Tracy Guerin - Director <br> (The governor appoints the director of DRS.) |
| Washington State Investment Board <br> PO Box 40916 <br> Olympia, WA 98504-0916 <br> Phone: 360.956.4600 Website: www.sib.wa.gov | Invests and accounts for pension funds | The board consists of 10 voting and five nonvoting members. <br> Voting members <br> Duane Davidson - State Treasurer <br> Rep. Timm Ormsby <br> Sen. Mark Mullet <br> Tracy Guerin - Director, Department of Retirement Systems <br> Joel Sacks - Director, Department of Labor and Industries <br> Yona Makowski - Retired members <br> Kelly Fox (chair) - LEOFF <br> Arlista Holman - SERS <br> Judy Kuschel (vice chair) - PERS <br> Stephen Miller - TRS <br> Nonvoting members - investment professionals <br> William A. Longbrake <br> Richard Muhlebach <br> George Zinn <br> David Nierenberg <br> Mary Pugh |
| Office of Financial Management <br> PO Box 43113 <br> Olympia, WA 98504-3113 <br> Phone: 360.902.0555 <br> Website: www.ofm.wa.gov | Advises the governor on pension and funding policies and issues | David Schumacher - Director <br> (The governor appoints the director of OFM.) |
| Office of the State Actuary <br> PO Box 40914 <br> Olympia, WA 98504-0914 <br> Phone: 360.786.6140 <br> Website: osa.leg.wa.gov | Acts as an advisory agency to the Legislature and to the director of DRS; performs actuarial studies and reports on retirement bills; and creates factors used to compute benefit payment adjustments that are based on early retirement, Cost-of-Living Adjustments or long term survivor benefits | Matt Smith - State Actuary <br> (The State Actuary Appointment Committee appoints the state actuary.) |
| Law Enforcement Officers' and Fire Fighters' Plan 2 Retirement Board <br> PO Box 40918 <br> Olympia, WA 98504-0918 <br> Phone: 360.586.2320 <br> Website: www.leoff.wa.gov | Policy-making board that studies pension issues, acts as fiduciary of LEOFF Plan 2, sets contribution rates and recommends pension policy to the Legislature for LEOFF Plan 2 members | Fire fighter representatives <br> Kelly Fox (chair) <br> Michael White <br> Mark Johnston <br> Law enforcement representatives <br> Rep. Jeff Holy (retired) <br> Wally Loucks <br> Jason Granneman <br> Employer representatives <br> David Cline <br> Dwight Dively <br> Paul Golnik <br> Legislators <br> Rep. Steve Bergquist <br> Sen. Judy Warnick |

## Pension System Roles and Responsibilities (cont.)

| Pension System Roles and Responsibilities - Page 2 of 3 |  |  |
| :---: | :---: | :---: |
| Organization and Contact Information | Responsibility | Membership/Executive |
| Select Committee on Pension Policy Contact through the Office of the State Actuary | Studies pension issues and retirement finances, develops pension policies, and recommends pension legislation | Legislators <br> Rep. Timm Ormsby <br> Rep. Bruce Chandler (chair) <br> Rep. Matt Manweller <br> Rep. Derek Stanford <br> Sen. Barbara Bailey <br> Sen. Steve Conway (vice chair) <br> Sen. Steve Hobbs <br> Sen. Mark Schoesler <br> Agency directors <br> David Schumacher - Office of Financial Management <br> Tracy Guerin - Department of Retirement Systems <br> Retiree representatives <br> Bev Hermanson - PERS <br> Bob Thurston - WSPRS <br> Active member representatives <br> Randy Davis - TRS <br> (Vacant) - PERS <br> J. Pat Thompson - PERS <br> David Westberg - SERS <br> Employer representatives <br> John Boesenberg - PERS/Higher Education <br> Annette Creekpaum - PERS <br> Beverly Freeman - PERS <br> Byron Olson - PERS |
| DRS Advisory Committee Contact through DRS | Serves in an advisory role to the director of DRS | PERS <br> Bev Hermanson - Retired <br> Mary L. Sherman - Active <br> SERS <br> Jacques Meddles - Active <br> Cheri Ingersoll - Retired <br> LEOFF <br> Scott Bieber - Active <br> Richard Warbrouck - Retired <br> TRS <br> Nancy Baldwin - Retired (chair) <br> Darrell Heisler - Active <br> PSERS <br> William Copland - Active <br> WSPRS <br> Travis Matheson - Active <br> Rick Jensen - Retired (vice chair) <br> JRS <br> Judge Richard McDermott - Active <br> DCP <br> Kathy Whitlock - Participant <br> Defined contribution plan administration <br> Deirdre Walker - Weyerhaeuser |

## Pension System Roles and Responsibilities (cont.)

| Pension System Roles and Responsibilities - Page 3 of 3 |  |  |
| :---: | :---: | :---: |
| Organization and Contact Information | Responsibility | Membership/Executive |
| Pension Funding Council Contact through DRS | Adopts economic assumptions for pension funding and member and employer pension contribution rates for LEOFF Plan 1, PERS, PSERS, SERS, TRS and WSPRS | Legislators <br> Rep. Bruce Chandler - Ranking minority member, House Appropriations Committee <br> Rep. Timm Ormsby - Chair, House Appropriations Committee Sen. John Braun - Chair, Senate Ways and Means Committee Sen. Kevin Ranker - Ranking minority member, Senate Ways and Means Committee <br> Agency directors <br> David Schumacher (chair) - Office of Financial Management Tracy Guerin - Department of Retirement Systems |
| Legislative Fiscal Committees <br> House Appropriations <br> Committee <br> P0 Box 40600 <br> Olympia, WA 98504-0600 | Reviews and reports on retirement bills to the full Legislature | The legislative fiscal committees are the House Appropriations Committee and the Senate Ways and Means Committee. |
| Senate Ways and Means Committee <br> PO Box 40482 <br> Olympia, WA 98504-0482 |  |  |
| Phone: 360.786.7155 <br> or 800.562.6000 <br> Website: www.leg.wa.gov |  |  |

## Letter of Transmittal



STATE OF WASHINGTON
DEPARTMENT

## OF RETIREMENT SYSTEMS

PO Box 48380 • Olympia, WA 98504-8380

October 17, 2017

## The Honorable Jay Inslee, Governor <br> Members of the Sixty-Fifth Legislature <br> Members of the Select Committee on Pension Policy

We are pleased to present our Comprehensive Annual Financial Report (CAFR) for the fiscal year ended June 30, 2017. This report is intended to provide complete and reliable information that can be used to make management decisions and evaluate responsible stewardship of the retirement systems' funds.

This CAFR is also designed to comply with the requirements of RCW 41.50.050(4), RCW $41.50 .055(6)$ and RCW 41.50.780(8).

Responsibility for the accuracy of the data and the fairness and completeness of this presentation, including all disclosures, rests with the management of the Department of Retirement Systems (DRS). To the best of our knowledge, the enclosed information is accurate in all material respects and is reported in a manner designed to provide a fair representation of the financial position and results of the operations of the department.

CliftonLarsonAllen LLP, certified public accountants, issued an unmodified ("clean") opinion on DRS' financial statements for the year ended June 30, 2017. The independent auditors' report is located at the beginning of the Financial Section of this CAFR.
"Management's Discussion and Analysis" (MD\&A) immediately follows the independent auditors' report and provides a narrative introduction, overview and analysis of the basic financial statements. The MD\&A
complements this letter of transmittal and should be read in conjunction with it.

Agency Description
DRS was established to administer pension plans for state employees, teachers and classified educational employees, law enforcement officers and fire fighters, and other employees of participating political subdivisions. DRS was also given administrative responsibility for the state's Deferred Compensation Program.

As of June 30, 2017, 1,345 employers were covered, 156 of which were component units of the state.
They participate in the eight statewide retirement systems DRS administers. Those retirement systems are composed of 15 defined benefit plans, three of which include a defined contribution component.

Additionally, DRS is responsible for the accounting, reporting and collection of contributions for the Judicial Retirement Account (JRA), a defined contribution pension plan the Washington State Administrative Office of the Courts administers.

## Departmental Initiatives

DRS' activities are highlighted in the "Director's Message" on page 3 of this Introductory Section.

Financial Reporting and Internal Control This CAFR has been prepared to conform to the principles of accounting and reporting established by the Governmental Accounting Standards Board (GASB). The basic financial statements are presented in accordance with guidelines established by GASB Statement No. 67, Financial Reporting for Pension Plans, and other authoritative accounting criteria. Specific accounting policies are detailed in the "Notes to the Financial Statements."

## Letter of Transmittal (cont.)

DRS' management is responsible for establishing and maintaining an internal control structure designed to protect the assets of the retirement systems from loss, theft and misuse and to compile reliable accounting data to allow for the preparation of financial statements in conformity with generally accepted accounting principles.

The internal control structure is designed to provide reasonable, but not absolute, assurance that these objectives 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 valuation of costs and benefits requires estimates and judgments.

## Funding

The intent of public pension funding in Washington is to provide a dependable and systematic process for financing the benefits the retirement systems provide. Measurement of funding status indicates how well that goal is being met.

There are two standard indicators of funding status: the funding ratio and the existence of an unfunded liability. Both measure the benefit obligations, or liabilities, of a plan against its assets. If the funding level is adequate, the ratio of total accumulated assets to total liabilities will be larger and more funds will be available for investment purposes. Also, an adequate funding level gives members assurance that their pension benefits are secure.

The actuarial value of assets available as of the latest actuarial date, June 30, 2016, for all systems is $\$ 74,352$ million. The accrued liability is $\$ 88,271$ million.

The accrued liability exceeds the net actuarial value of assets available for benefits by $\$ 13,919$ million. The ratio of assets to liabilities is $84 \%$, compared to $86 \%$ last year. Current contribution rates remain in keeping with the goal of attaining a funding ratio of $100 \%$ by the amortization dates applicable to each plan, as required by Chapter 41.45 RCW. Valuations are performed for DRS-administered retirement systems on a yearly (July 1 through June 30) basis. The Office of the

State Actuary prepares these calculations. Additional actuarial information is included in the Actuarial Section of this CAFR.

## Investments

In accordance with RCW 43.33A.110, the Washington State Investment Board (WSIB) manages the pension trust fund porifolio to maximize return at a prudent level of risk.

The WSIB establishes asset allocation targets that constitute the board's view of a prudent and wellreasoned approach to the management of the entrusted funds. At any given time, the asset mix might deviate from the target; deviations greater than predetermined acceptable levels require rebalancing. The goal of rebalancing is to meet the target allocation within consideration of the other remaining asset classes.

Most pension funds are invested in the Commingled Trust Fund (CTF), a diversified pool of investments. For fiscal year 2017, the CTF investments provided a $13.4 \%$ one year time-weighted rate of return. The annualized rate of return was $6.9 \%$ over the past three years and $10.0 \%$ over the past five years.

A listing of investment professionals who provide services to the WSIB, is available beginning on page 112, and additional investment information is included in the Investment Section of this CAFR.

## Professional Award

The Government Finance Officers Association of the United States and Canada (GFOA) awarded a Certificate of Achievement for Excellence in Financial Reporting to DRS for its CAFR for the fiscal year ended June 30, 2016.

This was the 22nd consecutive year DRS earned this prestigious award. To be awarded a Certificate of Achievement, a government must publish an easily readable and efficiently organized report that satisfies both generally accepted accounting principles and applicable legal requirements.

A Certificate of Achievement is valid for a period of one year. We believe our current CAFR continues

## Letter of Transmittal (cont.)

to meet the Certificate of Achievement program's requirements, and we are submitting it to the GFOA to determine its eligibility.

## Acknowledgments

This report was made possible by the team members of DRS, based in part on information provided by the Office of Financial Management, the Office of the State Actuary, the Office of the State Treasurer and the

Washington State Investment Board. We appreciate their assistance.

Respectfully submitted,


Tracy Guerin
Director

## Significant Events in State Retirement History

## 1930s-1940s

PERS, TRS, WSPRS, JRF and many local
police and fire fighters' retirement systems were created.

## 1970

Local police and fire fighters' retirement systems were consolidated into LEOFF.

## 1976

The Department of Retirement Systems was created to administer state retirement systems.

The Office of the State Actuary was created to provide pension cost estimates.

1977
LEOFF, PERS and TRS Plans 2 were created.

## 1981

The Washington State Investment Board was created to manage the investment of state trust funds.

## 1987

The Joint Committee on Pension Policy was established.

## 1995

TRS Plan 3 was created.

## 1996

The state Deferred Compensation Program (DCP) was transferred to DRS.

DRS assumed accounting and reporting responsibility for JRA.

## 1998

School Employees' Retirement System (SERS) Plans 2 and 3 were created.

The Pension Funding Council was created.

## 2000

PERS Plan 3 was created. It became effective March 1, 2002, for state and higher education employees and September 1, 2002, for local government employees.

## 2001

WSPRS Plan 2 was created.

## 2003

The LEOFF 2 Board was established.

The Joint Committee on Pension Policy became the Select Committee on Pension Policy.

## 2004

The Public Safety Employees' Retirement System (PSERS) was created.


Government Finance Officers Association

# Certificate of Achievement for Excellence <br> in Financial Reporting 

Presented to
Washington State Department of Retirement Systems

For its Comprehensive Annual
Financial Report for the Fiscal Year Ended

June 30, 2016


Executive Director/CEO

## 2017 Washington State Legislative Actions

In 2017, the Washington Legislature passed four pension-related bills that Gov. Jay Inslee signed into law. These laws are described below.

## LEOFF

SB 5661

## No-cost interruptive military service credit for LEOFF Plan 2 members

This law instructs the Law Enforcement Officers' and Fire Fighters' Plan 2 Retirement Board to study the issue of interruptive military service credit for veterans who leave employment to serve in a specific conflict but who do not receive a campaign badge or medal.

## HB 2202

## Eligibility of EMTs for membership in LEOFF Plan 2

This law expands the definition of "employer" in Plan 2 of the LEOFF Retirement System to include public corporations established under RCW 35.21 .730 to provide emergency medical services. It also narrows the definition of "fire fighter" for purposes of LEOFF Plan 2 membership to include only those emergency medical technicians (EMTs) who provide emergency medical services and are a "physician's trained advanced emergency medical technician and paramedic" or an EMT under RCW 18.73.030.

The law allows any EMT who provided emergency medical services on or after July 24, 2005, to establish credit in LEOFF Plan 2 for that service. Employers must provide DRS with a list of former employees eligible for service credit under this section of the law. DRS must notify these employees of the process and cost to establish service credit. If the employees were not members of the Public Employees' Retirement System, they have until July 1, 2018, to purchase some or all of their previous EMT service. If they were members of PERS, they have three choices:

- Continue as PERS members, including any new service
- Keep their PERS service and be reported in Plan 2 of LEOFF prospectively
- Transfer all eligible EMT service from PERS to LEOFF and be reported in LEOFF prospectively


## WSPRS

SB 5274
Washington State Patrol voluntary overtime
This law amends the definition of "salary" in the Washington State Patrol Retirement System to include voluntary overtime earned after July 1, 2017. This would result in voluntary overtime of 70 hours or less per year being considered earnable compensation, which is used when calculating a retiree's Average Final Salary and, therefore, the retiree's monthly benefit amount.

## PERS/PSERS

## HB 1709

## Allowing PERS members meeting specific criteria to

 transfer service credit into PSERSThis law allows Public Employees' Retirement System (PERS) members who meet certain eligibility criteria to transfer their PERS service credit into the Public Safety Employees' Retirement System (PSERS) as long as they pay the difference between the PERS and PSERS employee contribution rates for the affected service credit. Their employers would also have to pay the difference between the PERS and PSERS employer contribution rates.

For a complete list of pension-related bills introduced in 2017, see the Legislation section of the DRS website.


## DRS partners with employers

across the state to ensure
retirement system members receive the benefits they've earned.


Financial Section

# Independent Auditors' Report 

## INDEPENDENT AUDITORS' REPORT

Ms. Tracy Guerin, Director
Washington State Department of Retirement Systems
Olympia, Washington

## Report on the Financial Statements

We have audited the accompanying financial statements (including the individual fund financial statements) of the Washington State Department of Retirement Systems (DRS), which comprise the statement of fiduciary net position as of June 30, 2017, and the related statement of changes in fiduciary net position for the year then ended, and the related notes to the financial statements.

## 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.

## Auditors' Responsibility

Our responsibility is to express opinions 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. 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 auditors' 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 opinions.

## Opinions

In our opinion, the financial statements referred to above present fairly, in all material respects, DRS' fiduciary net position as of June 30, 2017, 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. Also, in our opinion, the financial statements present fairly in all material respects, the fiduciary net position of each of the individual funds of DRS as of June 30, 2017, and the changes in fiduciary net position of such funds for the year then ended, in accordance with accounting principles generally accepted in the United States of America.

# Independent Auditors' Report (cont.) 

Ms. Tracy Guerin, Director<br>Washington State Department of Retirement Systems

## Report on Summarized Comparative Information

We have previously audited the DRS' 2016 financial statements, and we expressed an unmodified audit opinion on those audited financial statements in our report dated October 14, 2016. In our opinion, the summarized comparative information presented herein as of and for the year ended June 30, 2016 is consistent, in all material respects, with the audited financial statements from which it has been derived.

## Other Matters

## Required Supplementary Information

Accounting principles generally accepted in the United States of America require that the Management's Discussion and Analysis, the Required Supplementary Schedules of Changes in Net Pension Liability, Net Pension Liability, Employer Contributions and Investment Returns and the related Notes to 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, who considers it to be an essential part of financial reporting for placing the 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 Information

Our audit was conducted for the purpose of forming opinions on the financial statements that collectively comprise the DRS' basic financial statements. The Schedules of Administrative Expenses, Investment Expenses - Pension Trust Funds and Payments to Consultants (Supporting Schedules), as listed in the table of contents, are presented for the purpose of additional analysis and are not a required part of the financial statements.

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

The Introductory, Investment, Actuarial, and Statistical Sections, as listed in the table of contents, have not been subjected to the auditing procedures applied in the audit of the financial statements and, accordingly, we do not express an opinion or provide any assurance on them.


## CliftonLarsonAllen LLP

Baltimore, Maryland
October 17, 2017

## Management's Discussion and Analysis

This discussion and analysis provides an overview of financial activities of the Washington State Department of Retirement Systems (DRS) for the fiscal year ended June 30, 2017. Please read it in conjunction with the "Letter of Transmittal," beginning on page 8, and the financial statements, beginning on page 21.

## Financial Highlights

- The overall financial position of DRS improved during the year; the fiduciary net position of all the pension funds increased $\$ 11,633.9$ million.
- The covered payroll subject to both employee and employer pension contributions reported during the year totaled $\$ 19,947.2$ million, representing a $6 \%$ increase over the previous year.
- Employer contributions totaled $\$ 2,205.8$ million, and member contributions (including restorations) totaled $\$ 1,422.6$ million, representing increases of $8.9 \%$ and $6.0 \%$, respectively, over the previous fiscal year.
- Net investment earnings (net appreciation/ depreciation in the fair value of investments plus interest and dividend income less investment expenses) increased $\$ 10,506.7$ million to $\$ 12,473.9$ million.
- Pension benefits paid to retirees and beneficiaries increased $\$ 203.2$ million, bringing the total benefit payments to $\$ 4,059.7$ million. Refunds of contributions paid to former retirement system members increased $2.7 \%$ to $\$ 760.3$ million.
- Administrative expenses totaled $\$ 40.1$ million and represented a $12.6 \%$ increase over the last fiscal year.


## Overview of the Financial Statements

DRS' financial statements consist of the following components: basic financial statements, notes to the financial statements, required supplementary information and other supporting schedules.

Basic Financial Statements: The basic financial statements are fund financial statements and include a "Statement of Fiduciary Net Position" and a "Statement of Changes in Fiduciary Net Position." The fiduciary
funds include defined benefit and defined contribution pension trust funds and the Deferred Compensation Program trust fund.

The "Statement of Fiduciary Net Position," beginning on page 21 , reports the assets, liabilities and resulting net position available for pension and other benefits as of June 30, 2017. The "Statement of Changes in Fiduciary Net Position," beginning on page 25 , reports the additions to, deductions from and resulting change in fiduciary net position for the fiscal year.

Notes to the Financial Statements: The notes to the financial statements, beginning on page 29 of this report, are an integral part of the financial statements and include additional information not readily evident in the statements themselves. Note 1 provides a summary of significant accounting policies and plan asset matters. Note 2 provides a general description of the retirement plans, membership, employer net pension liability and actuarial assumptions.

## Required Supplementary Information

Two years of financial statements alone cannot provide sufficient information to properly evaluate the longterm financial position of the plans. The required supplementary information enhances that perspective and consists of four schedules built prospectively to present 10-year historical trends.

The "Schedule of Net Pension Liability" presents each pension plan's net pension liability. The "Schedules of Changes in Net Pension Liability" include current fiscal year and prior fiscal year information about the changes in the net pension liability of each pension plan.

The "Schedule of Investment Returns" presents the annual money-weighted rate of return, net of investment expense, for each pension plan. The "Schedule of Contributions" presents information about the annual required contributions of employers, the contributions made in relation to that requirement, covered employee payroll and the contributions as a percentage of covered payroll. The required supplementary information schedules begin on page 82.

## Management's Discussion and Analysis (cont.)

## Supporting Schedules and Other Financial Information

The supporting schedules, which begin on page 100, provide additional detailed information that is useful in evaluating the condition of the plans DRS administers.

These schedules include information on administrative expenses, investment expenses and payments to consultants.

## Financial Analysis of DRS Funds

| Analysis of Fiduciary Net Position Dollars in Millions |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Fiduciary Net Position | Fiscal Year 2017 |  | Fiscal Year 2016 | Increase (Decrease) Amount | $\begin{array}{r} \text { Increase } \\ \text { (Decrease) } \\ \text { Percentage } \end{array}$ |
| Assets |  |  |  |  |  |
| Cash and Pooled Investments | \$ 40.2 | \$ | 42.8 | \$ (2.6) | (6.1)\% |
| Receivables | 2,900.4 |  | 3,470.3 | (569.9) | (16.4)\% |
| Capital Assets, Net of Depreciation | 0.2 |  | 0.2 | - | 0.0\% |
| Investments, Noncurrent | 102,658.6 |  | 90,648.2 | 12,010.4 | 13.2\% |
| Other Assets | 1.3 |  | 1.4 | (0.1) | (7.1)\% |
| Total Assets | 105,600.7 |  | 94,162.9 | 11,437.8 | 12.1\% |
| Liabilities |  |  |  |  |  |
| Obligations Under Securities Lending Agreements | 712.7 |  | 683.1 | 29.6 | 4.3\% |
| Other Short-Term Liabilities | 2,760.4 |  | 2,986.0 | (225.6) | (7.6)\% |
| Long-Term Obligations | 1.3 |  | 1.4 | (0.1) | (7.1)\% |
| Total Liabilities | 3,474.4 |  | 3,670.5 | (196.1) | (5.3)\% |
| Fiduciary Net Position | \$ 102,126.3 | \$ | 90,492.4 | \$ 11,633.9 | 12.9\% |

The fiduciary net position increased by $\$ 11,633.9$ million in fiscal year 2017 and totaled $\$ 102,126.3$ million at fiscal year-end. The increase was mostly due to strong investment earnings.

Total trust-fund assets as of June 30, 2017, were $\$ 105,600.7$ million, representing an increase of $\$ 11,437.8$ million, or $12.1 \%$ over the previous fiscal year. This increase was primarily due to a $\$ 10,506.7$ million increase in net income from investment activities, caused almost entirely by current year market movements.

Total trust-fund liabilities as of June 30, 2017, were $\$ 3,474.4$ million, representing a decrease of $\$ 196.1$ million, or $5.3 \%$, over the previous year. The decrease in liabilities is mostly attributable to fewer pending investment trades.

## Analysis of Changes in Fiduciary Net Position

 Dollars in Millions| Changes in Fiduciary Net Position | Fiscal Year 2017 |  | Fiscal Year 2016 | Increase (Decrease) Amount | Increase (Decrease) Percentage |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Additions |  |  |  |  |  |
| Employer Contributions | \$ 2,205.8 | \$ | 2,025.9 | \$ 179.9 | 8.9\% |
| Member <br> Contributions | 1,422.6 |  | 1,342.6 | 80.0 | 6.0\% |
| State Contributions | 72.0 |  | 70.4 | 1.6 | 2.3\% |
| Participant Contributions | 287.1 |  | 213.5 | 73.6 | 34.5\% |
| Net Investment Income (Loss) | 12,473.9 |  | 1,967.2 | 10,506.7 | 534.1\% |
| Charges for Services | 38.6 |  | 36.8 | 1.8 | 4.9\% |
| Transfers from Other Pension Plans | 10.3 |  | 5.9 | 4.4 | 74.6\% |
| Total Additions | 16,510.3 |  | 5,662.3 | 10,848.0 | 191.6\% |
| Deductions |  |  |  |  |  |
| Benefits | 4,059.7 |  | 3,856.5 | 203.2 | 5.3\% |
| Refunds of Contributions | 760.3 |  | 740.3 | 20.0 | 2.7\% |
| Transfers to Other Pension Plans | 10.3 |  | 5.9 | 4.4 | 74.6\% |
| Transfers to Other Funds | 6.0 |  | 6.0 | - | 0.0\% |
| Administrative Expenses | 40.1 |  | 35.6 | 4.5 | 12.6\% |
| Total Deductions | 4,876.4 |  | 4,644.3 | 232.1 | 5.0\% |
| Net Increase (Decrease) | 11,633.9 |  | 1,018.0 | 10,615.9 | 1,042.8\% |
| Fiduciary Net Position: July 1 | 90,492.4 |  | 89,474.4 | 1,018.0 | 1.1\% |
| Fiduciary Net Position: June 30 | \$102,126.3 | \$ | 90,492.4 | \$ 11,633.9 | 12.9\% |

Additions to the retirement trust funds primarily consist of contributions from employers, active system members, the state and investment earnings. Additions to the deferred compensation trust fund consist of participant contributions and investment earnings.

Total trust-fund additions (excluding plan transfers) for fiscal year 2017 totaled $\$ 16,500.0$ million, an increase of $\$ 10,853.6$ million from fiscal year 2016. This was primarily due to the $\$ 10,506.7$ million

## Management's Discussion and Analysis (cont.)

increase in net income from investment activities. The investment performance yielded a $13.4 \%$ total one year time-weighted return for the retirement funds' Commingled Trust Fund (CTF), compared to the 2.7\% return of the previous year.

Employer contributions increased $\$ 179.9$ million, or $8.9 \%$, and totaled $\$ 2,205.8$ million. This increase was the result of increased employment and salaries, employer reporting for periods prior to the current fiscal year, and employer-specific invoices. Total covered payroll was \$19,947.2 million and represented a 6\% increase over the previous year.

Member contributions include both regular and restoration contributions as well as service credit purchases. Total member contributions increased $\$ 80$ million, or $6 \%$, over the previous year and totaled $\$ 1,422.6$ million for fiscal year 2017.

- Regular member contributions increased
$\$ 62.8$ million to $\$ 1,340.4$ million and reflected increased employment and salaries.
- Other contributions increased $\$ 17.3$ million to $\$ 82.2$ million during the current year.

State contributions increased $\$ 1.6$ million to $\$ 72$ million in fiscal year 2017. The increase was in state General Fund allocations for Plan 2 of the Law Enforcement Officers' and Fire Fighters' Retirement System (LEOFF), which moved from $\$ 60.4$ million to $\$ 62.1$ million. State contributions to the Judicial Retirement System (JRS) decreased to $\$ 9.3$ million and the Judges' Retirement Fund (JRF) received $\$ 0.5$ million during the current year.

Participant contributions to the Deferred Compensation Program (DCP) increased $34.5 \%$ over the prior year and totaled $\$ 287.1$ million in fiscal year 2017. As of June 30, 2017, the number of active and contributing DCP participants was 40,722 and represented an increase of 3,059 , or $8 \%$ over the previous year.

Trust Fund Contributions and Payouts For the Fiscal Years Ended June 30, 2007-2016 — Dollars in Millions


## Management's Discussion and Analysis (cont.)

The significant increase in DCP contributions and participation is a result of the mandatory autoenrollment of new state employees at $3 \%$ that went into effect January 1, 2017. Even though new state employees have the option to opt out of DCP participation, $92 \%$ continue to participate in DCP either at the $3 \%$ auto-enrollment rate or at a percentage or amount the participant chooses.

Transfers from and to other pension plans increased from $\$ 5.9$ million in fiscal year 2016 to $\$ 10.3$ million in fiscal year 2017.

Deductions to the retirement trust funds consist of the payment of benefits to retirees and beneficiaries, the refund of contributions to former retirement system members, and the cost of administering the retirement systems. Benefit payments to members include both pension and annuity benefits.

Deductions to the deferred compensation trust fund consist of payments to plan participants and administrative expenses.

Expenses the Washington State Investment Board (WSIB) incurred for the investment of trust funds are funded from earnings on investments.

Total trust fund deductions (excluding plan transfers) for fiscal year 2017 were $\$ 4,866$. 1 million, an increase of $\$ 227.7$ million, or $5 \%$, over fiscal year 2016. This growth resulted primarily from an increase in benefits paid to retirees and beneficiaries. Benefit payments increased $\$ 203.2$ million, or $5.3 \%$, due to an increase in the number of retirees during the year, the annual Cost-of-Living Adjustments that increased benefit payouts and the higher salaries of those newly retired.

Total refunds for fiscal year 2017 were $\$ 760.3$ million, representing a $\$ 20$ million increase from the previous year. Of this increase, $\$ 3.2$ million can be attributed to employees withdrawing their plan contributions upon terminating public employment and $\$ 16.8$ million can be attributed to increased distributions from DCP for mandatory distributions and other withdrawals from program participants.

20 DRS $\nabla$ Financial Section - Comprehensive Annual Financial Report

## Capital Assets

DRS' investment in capital assets includes furnishings, equipment and improvements other than buildings. As of June 30, 2017, total investment was $\$ 2.2$ million, with accumulated depreciation of $\$ 2$ million, leaving a net book value of $\$ 0.2$ million. Additional information can be found in Note 1 to the financial statements.

## Other Long-Term Obligations

At year-end, DRS had $\$ 1.4$ million in outstanding general long-term obligations. These long-term obligations represent DRS' liability for employees' accumulated annual and sick leave. Additional information can be found in Note 1 to the financial statements.

## Contacting DRS' Financial Management

 This CAFR is designed to provide a general overview of DRS' finances. If you have questions about this report or need additional financial information, contact:Department of Retirement Systems' Fiscal Office
PO Box 48380
Olympia, WA 98504-8380

## Statement of Fiduciary Net Position

## Pension Trust Funds by Plan

June 30, 2017, with Comparative Totals for June 30, 2016 — Page 1 of 4

| Dollars in Thousands | Pension Trust |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | PERS <br> Plan 1 |  |  |  PERS Plan 3 <br> PERS Defined <br> Plan 2/3 Contribution |  |  | $\begin{array}{r} \text { SERS } \\ \text { Plan } 2 / 3 \end{array}$ |  | SERS Plan 3 Defined Contribution |  |
| Assets |  |  |  |  |  |  |  |  |  |  |
| Cash and Pooled Investments | \$ | 2,586 | \$ | 4,682 | \$ | 606 | \$ | 2,768 | \$ | 1,320 |
| Receivables |  |  |  |  |  |  |  |  |  |  |
| Due from Other Governments |  | 3,154 |  | 77,874 |  | 5,905 |  | 15,539 |  | 5,387 |
| Member Accounts Receivable (Net of Allowance) |  | 790 |  | 380 |  | - |  | 22 |  | - |
| Interest and Dividends |  | 20,486 |  | 95,542 |  | 4,839 |  | 13,131 |  | 4,068 |
| Investment Trades Pending Receivable - Short Term |  | 191,358 |  | 896,956 |  | 43,571 |  | 124,450 |  | 36,625 |
| Due from Pension Funds |  | 40,286 |  | 189 |  | - |  | 71 |  | - |
| Due from Other Washington State Agencies |  | 4 |  | - |  | - |  | - |  | - |
| Total Receivables |  | 256,078 |  | 1,070,941 |  | 54,315 |  | 153,213 |  | 46,080 |
| Capital Assets, Net of Depreciation |  | 63 |  | 12 |  | - |  | 5 |  | - |
| Investments |  |  |  |  |  |  |  |  |  |  |
| Equity in CTF |  | 7,295,308 |  | 34,169,717 |  | 1,659,913 |  | 4,740,896 |  | 1,395,298 |
| Liquidity |  | 164,961 |  | 791,254 |  | 46,979 |  | 111,592 |  | 37,122 |
| Other Noncurrent Investments |  | - |  | - |  | 1,137,887 |  | - |  | 478,056 |
| Collateral Held Under Securities Lending Agreements |  | 57,283 |  | 267,624 |  | 12,989 |  | 37,184 |  | 10,918 |
| Total Investments |  | 7,517,552 |  | 35,228,595 |  | 2,857,768 |  | 4,889,672 |  | 1,921,394 |
| Other Assets |  | 465 |  | 92 |  | - |  | 35 |  | - |
| Total Assets |  | 7,776,744 |  | 36,304,322 |  | 2,912,689 |  | 5,045,693 |  | 1,968,794 |
| Liabilities |  |  |  |  |  |  |  |  |  |  |
| Obligations Under Securities Lending Agreements |  | 57,283 |  | 267,624 |  | 12,989 |  | 37,184 |  | 10,918 |
| Accounts Payable |  | 2,225 |  | 6,825 |  | 7,023 |  | 953 |  | 5,100 |
| Investment Trades Pending Payable - Short Term |  | 211,197 |  | 994,465 |  | 43,571 |  | 137,195 |  | 40,580 |
| Due to Other Governments |  | 6,050 |  | 4,112 |  | - |  | 860 |  | - |
| Due to Pension Funds |  | 2 |  | 29,363 |  | 4,023 |  | 5,693 |  | 637 |
| Due to Washington State Agencies |  | 116 |  | 42 |  | - |  | 9 |  | - |
| Other Short-Term Liabilities |  | 1 |  | 7 |  | - |  | 18 |  | - |
| Other Long-Term Obligations |  | 465 |  | 92 |  | - |  | 35 |  | - |
| Accrued Salaries |  | 275 |  | 59 |  | - |  | 21 |  | - |
| Unearned Revenues |  | 39 |  | 500 |  | - |  | 3 |  | - |
| Total Liabilities |  | 277,653 |  | 1,303,089 |  | 67,606 |  | 181,971 |  | 57,235 |
| Fiduciary Net Position |  |  |  |  |  |  |  |  |  |  |
| Pension Plans |  | 7,499,091 |  | 35,001,233 |  | 2,845,083 |  | 4,863,722 |  | 1,911,559 |
| DCP |  | - |  | - |  | - |  | - |  | - |
| Total Fiduciary Net Position | \$ | 7,499,091 | \$ | 35,001,233 | \$ | 2,845,083 | \$ | 4,863,722 | \$ | 1,911,559 |

The accompanying notes are an integral part of this statement.

## Statement of Fiduciary Net Position (cont.)

## Pension Trust Funds by Plan

June 30, 2017, with Comparative Totals for June 30, 2016 — Page 2 of 4

| Dollars in Thousands | Pension Trust |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | PSERS <br> Plan 2 |  | TRS Plan 1 |  | $\begin{array}{r} \text { TRS } \\ \text { Plan } 2 / 3 \end{array}$ |  | TRS Plan 3 Defined Contribution |  |  | $\begin{aligned} & \text { LEOFF } \\ & \text { Plan } 1 \end{aligned}$ |
| Assets |  |  |  |  |  |  |  |  |  |  |
| Cash and Pooled Investments | \$ | 259 | \$ | 2,354 | \$ | 4,578 | \$ | 5,818 | \$ | 1,564 |
| Receivables |  |  |  |  |  |  |  |  |  |  |
| Due from Other Governments |  | 2,840 |  | 851 |  | 40,415 |  | 23,811 |  | 202 |
| Member Accounts Receivable (Net of Allowance) |  | - |  | 154 |  | 112 |  | - |  | 198 |
| Interest and Dividends |  | 1,366 |  | 15,753 |  | 33,653 |  | 14,770 |  | 15,735 |
| Investment Trades Pending Receivable - Short Term |  | 12,784 |  | 147,022 |  | 320,535 |  | 132,954 |  | 147,227 |
| Due from Pension Funds |  | - |  | 21,847 |  | 272 |  | - |  | 395 |
| Due from Other Washington State Agencies |  | - |  | 1 |  | - |  | - |  | 1 |
| Total Receivables |  | 16,990 |  | 185,628 |  | 394,987 |  | 171,535 |  | 163,758 |
| Capital Assets, Net of Depreciation |  | - |  | 55 |  | 18 |  | - |  | 26 |
| Investments |  |  |  |  |  |  |  |  |  |  |
| Equity in CTF |  | 490,899 |  | 5,617,008 |  | 12,210,701 |  | 5,065,074 |  | 5,609,385 |
| Liquidity |  | 11,020 |  | 126,741 |  | 291,046 |  | 141,738 |  | 126,918 |
| Other Noncurrent Investments |  | - |  | - |  | - |  | 3,166,175 |  | - |
| Collateral Held Under Securities Lending Agreements |  | 3,816 |  | 44,010 |  | 95,767 |  | 39,635 |  | 43,968 |
| Total Investments |  | 505,735 |  | 5,787,759 |  | 12,597,514 |  | 8,412,622 |  | 5,780,271 |
| Other Assets |  | - |  | 411 |  | 132 |  | - |  | 192 |
| Total Assets |  | 522,984 |  | 5,976,207 |  | 12,997,229 |  | 8,589,975 |  | 5,945,811 |
| Liabilities |  |  |  |  |  |  |  |  |  |  |
| Obligations Under Securities Lending Agreements |  | 3,816 |  | 44,010 |  | 95,767 |  | 39,635 |  | 43,968 |
| Accounts Payable |  | 93 |  | 1,630 |  | 2,486 |  | 9,117 |  | 1,602 |
| Investment Trades Pending Payable - Short Term |  | 14,109 |  | 162,265 |  | 353,195 |  | 147,309 |  | 162,491 |
| Due to Other Governments |  | 5 |  | 6,132 |  | 1,787 |  | - |  | 1 |
| Due to Pension Funds |  | 1,283 |  | 3 |  | 19,507 |  | 2,294 |  | 4 |
| Due to Washington State Agencies |  | - |  | 102 |  | 34 |  | - |  | 46 |
| Other Short-Term Liabilities |  | - |  | 1 |  | 24 |  | - |  | - |
| Other Long-Term Obligations |  | - |  | 410 |  | 132 |  | - |  | 192 |
| Accrued Salaries |  | 1 |  | 241 |  | 78 |  | - |  | 112 |
| Unearned Revenues |  | - |  | - |  | 12 |  | - |  | - |
| Total Liabilities |  | 19,307 |  | 214,794 |  | 473,022 |  | 198,355 |  | 208,416 |
| Fiduciary Net Position |  |  |  |  |  |  |  |  |  |  |
| Pension Plans |  | 503,677 |  | 5,761,413 |  | 12,524,207 |  | 8,391,620 |  | 5,737,395 |
| DCP |  | - |  | - |  | - |  | - |  | - |
| Total Fiduciary Net Position | \$ | 503,677 | \$ | 5,761,413 | \$ | 12,524,207 | \$ | 8,391,620 | \$ | 5,737,395 |

The accompanying notes are an integral part of this statement.

## Statement of Fiduciary Net Position (cont.)

## Pension Trust Funds by Plan

June 30, 2017, with Comparative Totals for June 30, 2016 — Page 3 of 4

| Dollars in Thousands |  |  |  |  |  | JRS |  | Pension Trust |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | LEOFF Plan 2 |  | WSPRS <br> Plan 1/2 |  |  |  |  | JRF |
| Assets |  |  |  |  |  |  |  |  |
| Cash and Pooled Investments | \$ | 1,562 | \$ | 817 | \$ | 7,422 | \$ | 685 |
| Receivables |  |  |  |  |  |  |  |  |
| Due from Other Governments |  | 15,350 |  | 594 |  | - |  | - |
| Member Accounts Receivable (Net of Allowance) |  | 58 |  | - |  | - |  | - |
| Interest and Dividends |  | 32,199 |  | 3,314 |  | 7 |  | 1 |
| Investment Trades Pending Receivable - Short Term |  | 301,679 |  | 31,026 |  | - |  | - |
| Due from Pension Funds |  | 31 |  | 34 |  | 1 |  | - |
| Due from Other Washington State Agencies |  | - |  | - |  | - |  | - |
| Total Receivables |  | 349,317 |  | 34,968 |  | 8 |  | 1 |
| Capital Assets, Net of Depreciation |  | 2 |  | 2 |  | - |  | - |
| Investments |  |  |  |  |  |  |  |  |
| Equity in CTF |  | 11,502,352 |  | 1,183,152 |  | - |  | - |
| Liquidity |  | 259,577 |  | 26,746 |  | - |  | - |
| Other Noncurrent Investments |  | - |  | - |  | - |  | - |
| Collateral Held Under Securities Lending Agreements |  | 90,001 |  | 9,274 |  | 130 |  | 12 |
| Total Investments |  | 11,851,930 |  | 1,219,172 |  | 130 |  | 12 |
| Other Assets |  | 15 |  | 17 |  | - |  | - |
| Total Assets |  | 12,202,826 |  | 1,254,976 |  | 7,560 |  | 698 |
| Liabilities |  |  |  |  |  |  |  |  |
| Obligations Under Securities Lending Agreements |  | 90,001 |  | 9,274 |  | 130 |  | 12 |
| Accounts Payable |  | 2,888 |  | 265 |  | 2 |  | - |
| Investment Trades Pending Payable - Short Term |  | 332,956 |  | 34,243 |  | - |  | - |
| Due to Other Governments |  | 32 |  | 235 |  | 28 |  | 2 |
| Due to Pension Funds |  | 305 |  | 10 |  | - |  | - |
| Due to Washington State Agencies |  | 25 |  | 5 |  | - |  | - |
| Other Short-Term Liabilities |  | - |  | - |  | - |  | - |
| Other Long-Term Obligations |  | 15 |  | 17 |  | - |  | - |
| Accrued Salaries |  | 23 |  | 10 |  | - |  | - |
| Unearned Revenues |  | 383 |  | - |  | - |  | - |
| Total Liabilities |  | 426,628 |  | 44,059 |  | 160 |  | 14 |
| Fiduciary Net Position |  |  |  |  |  |  |  |  |
| Pension Plans |  | 11,776,198 |  | 1,210,917 |  | 7,400 |  | 684 |
| DCP |  | - |  | - |  | - |  | - |
| Total Fiduciary Net Position | \$ | 11,776,198 | \$ | 1,210,917 | \$ | 7,400 | \$ | 684 |

The accompanying notes are an integral part of this statement.

## Statement of Fiduciary Net Position (cont.)

## Pension Trust Funds by Plan <br> June 30, 2017, with Comparative Totals for June 30, 2016 — Page 4 of 4

| Dollars in Thousands | Pension Trust |  |  |  |  |  | Totals |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | JRA Defined Contribution |  | Deferred Compensation Program |  | June 30, 2017 |  | June 30, 2016 |  |
| Assets |  |  |  |  |  |  |  |  |
| Cash and Pooled Investments | \$ | 9 | \$ | 3,212 | \$ | 40,242 | \$ | 42,750 |
| Receivables |  |  |  |  |  |  |  |  |
| Due from Other Governments |  | - |  | 266 |  | 192,188 |  | 188,903 |
| Member Accounts Receivable (Net of Allowance) |  | 1 |  | 2,320 |  | 4,035 |  | 3,553 |
| Interest and Dividends |  | - |  | 2 |  | 254,866 |  | 303,205 |
| Investment Trades Pending Receivable - Short Term |  | - |  | - |  | 2,386,187 |  | 2,826,463 |
| Due from Pension Funds |  | - |  | - |  | 63,126 |  | 148,145 |
| Due from Other Washington State Agencies |  | - |  | - |  | 6 |  | 11 |
| Total Receivables |  | 1 |  | 2,588 |  | 2,900,408 |  | 3,470,280 |
| Capital Assets, Net of Depreciation |  | - |  | - |  | 183 |  | 197 |
| Investments |  |  |  |  |  |  |  |  |
| Equity in CTF |  | - |  | - |  | 90,939,703 |  | 80,195,475 |
| Liquidity |  | - |  | - |  | 2,135,694 |  | 1,927,272 |
| Other Noncurrent Investments |  | 10,556 |  | 4,077,857 |  | 8,870,531 |  | 7,842,367 |
| Collateral Held Under Securities Lending Agreements |  | - |  | 54 |  | 712,665 |  | 683,169 |
| Total Investments |  | 10,556 |  | 4,077,911 |  | 102,658,593 |  | 90,648,283 |
| Other Assets |  | - |  | - |  | 1,359 |  | 1,431 |
| Total Assets |  | 10,566 |  | 4,083,711 |  | 105,600,785 |  | 94,162,941 |
| Liabilities |  |  |  |  |  |  |  |  |
| Obligations Under Securities Lending Agreements |  | - |  | 54 |  | 712,665 |  | 683,169 |
| Accounts Payable |  | - |  | 726 |  | 40,935 |  | 35,553 |
| Investment Trades Pending Payable - Short Term |  | - |  | - |  | 2,633,576 |  | 2,780,057 |
| Due to Other Governments |  | - |  | - |  | 19,244 |  | 18,051 |
| Due to Pension Funds |  | - |  | 2 |  | 63,126 |  | 148,145 |
| Due to Washington State Agencies |  | - |  | 14 |  | 393 |  | 416 |
| Other Short-Term Liabilities |  | - |  | 1,291 |  | 1,342 |  | 1,601 |
| Other Long-Term Obligations |  | - |  | - |  | 1,358 |  | 1,431 |
| Accrued Salaries |  | - |  | 51 |  | 871 |  | 792 |
| Unearned Revenues |  | - |  | - |  | 937 |  | 1,337 |
| Total Liabilities |  | - |  | 2,138 |  | 3,474,447 |  | 3,670,552 |
| Fiduciary Net Position |  |  |  |  |  |  |  |  |
| Pension Plans |  | 10,566 |  | - |  | 98,044,765 |  | 86,867,998 |
| DCP |  | - |  | 4,081,573 |  | 4,081,573 |  | 3,624,391 |
| Total Fiduciary Net Position | \$ | 10,566 | \$ | 4,081,573 | \$ | 102,126,338 | \$ | 90,492,389 |

The accompanying notes are an integral part of this statement.

## Statement of Changes in Fiduciary Net Position

## Pension Trust Funds by Plan

For the Fiscal Year Ended June 30, 2017, with Comparative Totals for June 30, 2016 — Page 1 of 4

| Dollars in Thousands | Pension Trust |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | PERS <br> Plan 1 |  |  |  PERS Plan 3 <br> PERS Defined <br> Plan $2 / 3$ Contribution |  |  |  | $\begin{array}{r} \text { SERS } \\ \text { Plan } 2 / 3 \end{array}$ | SERS Plan 3 Defined Contribution |  |
| Additions |  |  |  |  |  |  |  |  |  |  |
| Retirement Contributions |  |  |  |  |  |  |  |  |  |  |
| Employer | \$ | 609,287 | \$ | 621,927 | \$ | - | \$ | 134,727 | \$ | - |
| Plan Member |  | 11,092 |  | 486,407 |  | 129,969 |  | 51,627 |  | 71,737 |
| State |  | - |  | - |  | - |  | - |  | - |
| Plan Member Restorations |  | 4,338 |  | 32,159 |  | - |  | 774 |  | - |
| Total Retirement Contributions |  | 624,717 |  | 1,140,493 |  | 129,969 |  | 187,128 |  | 71,737 |
| Participant Contributions |  | - |  | - |  | - |  | - |  | - |
| Investment Income |  |  |  |  |  |  |  |  |  |  |
| Net Appreciation (Depreciation) in Fair Value of Investments |  | 802,907 |  | 3,670,712 |  | 305,851 |  | 509,039 |  | 199,094 |
| Interest and Other Investment Income |  | 126,725 |  | 569,960 |  | 28,643 |  | 79,039 |  | 23,923 |
| Dividends |  | 46,996 |  | 213,459 |  | 10,343 |  | 29,600 |  | 8,746 |
| Less: Investment Expenses |  | $(31,962)$ |  | $(144,035)$ |  | $(7,908)$ |  | $(20,157)$ |  | $(6,184)$ |
| Subtotal Net Investment Income (Loss) |  | 944,666 |  | 4,310,096 |  | 336,929 |  | 597,521 |  | 225,579 |
| Securities Lending Income |  |  |  |  |  |  |  |  |  |  |
| Securities Lending Income |  | 1,140 |  | 5,145 |  | 250 |  | 712 |  | 212 |
| Less: Costs of Lending Securities |  | (508) |  | $(2,306)$ |  | (112) |  | (319) |  | (95) |
| Net Securities Lending Income |  | 632 |  | 2,839 |  | 138 |  | 393 |  | 117 |
| Total Net Investment Income (Loss) |  | 945,298 |  | 4,312,935 |  | 337,067 |  | 597,914 |  | 225,696 |
| Charges for Services |  | 3,178 |  | 14,165 |  | 672 |  | 1,499 |  | 564 |
| Transfers from Other Pension Plans |  | 7 |  | 385 |  | 3,244 |  | 29 |  | 2,498 |
| Miscellaneous |  | 5 |  | 23 |  | - |  | 3 |  | - |
| Total Additions |  | 1,573,205 |  | 5,468,001 |  | 470,952 |  | 786,573 |  | 300,495 |
| Deductions |  |  |  |  |  |  |  |  |  |  |
| Benefits |  | 1,196,060 |  | 894,229 |  | - |  | 130,039 |  | - |
| Contribution Refunds |  | 3,159 |  | 37,374 |  | 98,499 |  | 3,227 |  | 85,577 |
| Annuity Payments |  | - |  | - |  | 6,400 |  | - |  | 4,055 |
| Transfers to Other Pension Plans |  | 28 |  | 3,524 |  | 712 |  | 2,262 |  | 258 |
| Transfers to Other Funds |  | 530 |  | 2,475 |  | - |  | 344 |  | - |
| Administrative Expenses |  | 3,342 |  | 14,218 |  | 673 |  | 1,460 |  | 564 |
| Total Deductions |  | 1,203,119 |  | 951,820 |  | 106,284 |  | 137,332 |  | 90,454 |
| Net Increase (Decrease) |  | 370,086 |  | 4,516,181 |  | 364,668 |  | 649,241 |  | 210,041 |
| Fiduciary Net Position |  |  |  |  |  |  |  |  |  |  |
| Beginning of Year: July 1 |  | 7,129,005 |  | 30,485,052 |  | 2,480,415 |  | 4,214,481 |  | 1,701,518 |
| End of Year: June 30 | \$ | 7,499,091 | \$ | 35,001,233 | \$ | 2,845,083 | \$ | 4,863,722 | \$ | 1,911,559 |

The accompanying notes are an integral part of this statement.

## Statement of Changes in Fiduciary Net Position (cont.)

## Pension Trust Funds by Plan

For the Fiscal Year Ended June 30, 2017, with Comparative Totals for June 30, 2016 — Page 2 of 4

| Dollars in Thousands | Pension Trust |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | PSERS <br> Plan 2 |  | TRS Plan 1 |  | $\begin{array}{r} \text { TRS } \\ \text { Plan } 2 / 3 \end{array}$ |  | TRS Plan 3 Defined Contribution |  |  | $\begin{aligned} & \text { LEOFF } \\ & \text { Plan } 1 \end{aligned}$ |
| Additions |  |  |  |  |  |  |  |  |  |  |
| Retirement Contributions |  |  |  |  |  |  |  |  |  |  |
| Employer | \$ | 23,238 | \$ | 348,968 | \$ | 364,106 | \$ | - | \$ | - |
| Plan Member |  | 23,409 |  | 3,846 |  | 75,481 |  | 322,155 |  | - |
| State |  | - |  | - |  | - |  | - |  | - |
| Plan Member Restorations |  | 289 |  | 3,061 |  | 5,897 |  | - |  | 1,908 |
| Total Retirement Contributions |  | 46,936 |  | 355,875 |  | 445,484 |  | 322,155 |  | 1,908 |
| Participant Contributions |  | - |  | - |  | - |  | - |  | - |
| Investment Income |  |  |  |  |  |  |  |  |  |  |
| Net Appreciation (Depreciation) in Fair Value of Investments |  | 51,002 |  | 618,944 |  | 1,310,903 |  | 906,038 |  | 615,132 |
| Interest and Other Investment Income |  | 7,834 |  | 97,999 |  | 203,452 |  | 86,141 |  | 96,647 |
| Dividends |  | 2,946 |  | 36,279 |  | 76,213 |  | 31,555 |  | 35,961 |
| Less: Investment Expenses |  | $(1,969)$ |  | $(24,723)$ |  | $(52,116)$ |  | $(23,796)$ |  | $(24,400)$ |
| Subtotal Net Investment Income (Loss) |  | 59,813 |  | 728,499 |  | 1,538,452 |  | 999,938 |  | 723,340 |
| Securities Lending Income |  |  |  |  |  |  |  |  |  |  |
| Securities Lending Income |  | 71 |  | 880 |  | 1,834 |  | 764 |  | 872 |
| Less: Costs of Lending Securities |  | (32) |  | (392) |  | (822) |  | (343) |  | (389) |
| Net Securities Lending Income |  | 39 |  | 488 |  | 1,012 |  | 421 |  | 483 |
| Total Net Investment Income (Loss) |  | 59,852 |  | 728,987 |  | 1,539,464 |  | 1,000,359 |  | 723,823 |
| Charges for Services |  | 218 |  | 2,442 |  | 3,258 |  | 2,054 |  | 2,430 |
| Transfers from Other Pension Plans |  | 5 |  | - |  | 118 |  | 3,542 |  | - |
| Miscellaneous |  | - |  | 4 |  | 8 |  | - |  | 4 |
| Total Additions |  | 107,011 |  | 1,087,308 |  | 1,988,332 |  | 1,328,110 |  | 728,165 |
| Deductions |  |  |  |  |  |  |  |  |  |  |
| Benefits |  | 1,148 |  | 906,293 |  | 254,721 |  | - |  | 360,060 |
| Contribution Refunds |  | 2,630 |  | 1,256 |  | 3,010 |  | 285,910 |  | 8 |
| Annuity Payments |  | - |  | 4,765 |  | - |  | 14,687 |  | - |
| Transfers to Other Pension Plans |  | 49 |  | - |  | 2,576 |  | 948 |  | - |
| Transfers to Other Funds |  | 36 |  | 407 |  | 886 |  | - |  | 405 |
| Administrative Expenses |  | 212 |  | 2,445 |  | 3,192 |  | 2,054 |  | 2,391 |
| Total Deductions |  | 4,075 |  | 915,166 |  | 264,385 |  | 303,599 |  | 362,864 |
| Net Increase (Decrease) |  | 102,936 |  | 172,142 |  | 1,723,947 |  | 1,024,511 |  | 365,301 |
| Fiduciary Net Position |  |  |  |  |  |  |  |  |  |  |
| Beginning of Year: July 1 |  | 400,741 |  | 5,589,271 |  | 10,800,260 |  | 7,367,109 |  | 5,372,094 |
| End of Year: June 30 | \$ | 503,677 | \$ | 5,761,413 | \$ | 12,524,207 | \$ | 8,391,620 | \$ | 5,737,395 |

The accompanying notes are an integral part of this statement.

## Statement of Changes in Fiduciary Net Position (cont.)

## Pension Trust Funds by Plan

For the Fiscal Year Ended June 30, 2017, with Comparative Totals for June 30, 2016 — Page 3 of 4

| Dollars in Thousands | Pension Trust |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | LEOFF <br> Plan 2 |  | WSPRS <br> Plan 1/2 |  | JRS |  |  | JRF |
| Additions |  |  |  |  |  |  |  |  |
| Retirement Contributions |  |  |  |  |  |  |  |  |
| Employer | \$ | 95,920 | \$ | 7,587 | \$ | - |  | - |
| Plan Member |  | 158,316 |  | 6,365 |  | - |  | - |
| State |  | 62,155 |  | - |  | 9,300 |  | 499 |
| Plan Member Restorations |  | 29,662 |  | 4,089 |  | - |  | - |
| Total Retirement Contributions |  | 346,053 |  | 18,041 |  | 9,300 |  | 499 |
| Participant Contributions |  | - |  | - |  | - |  | - |
| Investment Income |  |  |  |  |  |  |  |  |
| Net Appreciation (Depreciation) in Fair Value of Investments |  | 1,232,708 |  | 128,418 |  | (19) |  | (1) |
| Interest and Other Investment Income |  | 191,313 |  | 20,079 |  | 58 |  | 5 |
| Dividends |  | 71,656 |  | 7,490 |  | - |  | - |
| Less: Investment Expenses |  | $(48,246)$ |  | $(5,066)$ |  | - |  | - |
| Subtotal Net Investment Income (Loss) |  | 1,447,431 |  | 150,921 |  | 39 |  | 4 |
| Securities Lending Income |  |  |  |  |  |  |  |  |
| Securities Lending Income |  | 1,724 |  | 181 |  | - |  | - |
| Less: Costs of Lending Securities |  | (773) |  | (81) |  | - |  | - |
| Net Securities Lending Income |  | 951 |  | 100 |  | - |  | - |
| Total Net Investment Income (Loss) |  | 1,448,382 |  | 151,021 |  | 39 |  | 4 |
| Charges for Services |  | 4,988 |  | 513 |  | 3 |  | - |
| Transfers from Other Pension Plans |  | 5 |  | 524 |  | - |  | - |
| Miscellaneous |  | 8 |  | 1 |  | - |  | - |
| Total Additions |  | 1,799,436 |  | 170,100 |  | 9,342 |  | 503 |
| Deductions |  |  |  |  |  |  |  |  |
| Benefits |  | 219,715 |  | 56,666 |  | 8,723 |  | 402 |
| Contribution Refunds |  | 7,292 |  | 155 |  | - |  | - |
| Annuity Payments |  | - |  | - |  | - |  | - |
| Transfers to Other Pension Plans |  | - |  | - |  | - |  | - |
| Transfers to Other Funds |  | 832 |  | 86 |  | 1 |  | - |
| Administrative Expenses |  | 6,759 |  | 551 |  | 2 |  | - |
| Total Deductions |  | 234,598 |  | 57,458 |  | 8,726 |  | 402 |
| Net Increase (Decrease) |  | 1,564,838 |  | 112,642 |  | 616 |  | 101 |
| Fiduciary Net Position |  |  |  |  |  |  |  |  |
| Beginning of Year: July 1 |  | 10,211,360 |  | 1,098,275 |  | 6,784 |  | 583 |
| End of Year: June 30 | \$ | 11,776,198 | \$ | 1,210,917 | \$ | 7,400 | \$ | 684 |

The accompanying notes are an integral part of this statement.

## Statement of Changes in Fiduciary Net Position (cont.)

## Pension Trust Funds by Plan

For the Fiscal Year Ended June 30, 2017, with Comparative Totals for June 30, 2016 — Page 4 of 4

| Dollars in Thousands | Pension Trust |  |  |  | Totals |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | JRA Defined Contribution |  | Deferred Compensation Program |  | June 30, 2017 |  | June 30, 2016 |  |
| Additions |  |  |  |  |  |  |  |  |
| Retirement Contributions |  |  |  |  |  |  |  |  |
| Employer | \$ | 17 | \$ | - | \$ | 2,205,777 | \$ | 2,025,918 |
| Plan Member |  | 17 |  | - |  | 1,340,421 |  | 1,277,682 |
| State |  | - |  | - |  | 71,954 |  | 70,376 |
| Plan Member Restorations |  | - |  | - |  | 82,177 |  | 64,878 |
| Total Retirement Contributions |  | 34 |  | - |  | 3,700,329 |  | 3,438,854 |
| Participant Contributions |  | - |  | 287,130 |  | 287,130 |  | 213,531 |
| Investment Income |  |  |  |  |  |  |  |  |
| Net Appreciation (Depreciation) in Fair Value of Investments |  | 1,101 |  | 390,061 |  | 10,741,890 |  | 431,497 |
| Interest and Other Investment Income |  | 48 |  | 13,410 |  | 1,545,276 |  | 1,332,678 |
| Dividends |  | 8 |  | 4,135 |  | 575,387 |  | 532,380 |
| Less: Investment Expenses |  | (14) |  | $(5,715)$ |  | $(396,291)$ |  | $(338,712)$ |
| Subtotal Net Investment Income (Loss) |  | 1,143 |  | 401,891 |  | 12,466,262 |  | 1,957,843 |
| Securities Lending Income |  |  |  |  |  |  |  |  |
| Securities Lending Income |  | - |  | - |  | 13,785 |  | 13,775 |
| Less: Costs of Lending Securities |  | - |  | - |  | $(6,172)$ |  | $(4,377)$ |
| Net Securities Lending Income |  | - |  | - |  | 7,613 |  | 9,398 |
| Total Net Investment Income (Loss) |  | 1,143 |  | 401,891 |  | 12,473,875 |  | 1,967,241 |
| Charges for Services |  | - |  | 2,584 |  | 38,568 |  | 36,777 |
| Transfers from Other Pension Plans |  | - |  | - |  | 10,357 |  | 5,880 |
| Miscellaneous |  | - |  | 14 |  | 70 |  | 80 |
| Total Additions |  | 1,177 |  | 691,619 |  | 16,510,329 |  | 5,662,363 |
| Deductions |  |  |  |  |  |  |  |  |
| Benefits |  | 1,661 |  | - |  | 4,029,717 |  | 3,827,502 |
| Contribution Refunds |  | - |  | 232,229 |  | 760,326 |  | 740,358 |
| Annuity Payments |  | - |  | - |  | 29,907 |  | 29,078 |
| Transfers to Other Pension Plans |  | - |  | - |  | 10,357 |  | 5,880 |
| Transfers to Other Funds |  | - |  | - |  | 6,002 |  | 6,000 |
| Administrative Expenses |  | - |  | 2,208 |  | 40,071 |  | 35,609 |
| Total Deductions |  | 1,661 |  | 234,437 |  | 4,876,380 |  | 4,644,427 |
| Net Increase (Decrease) |  | (484) |  | 457,182 |  | 11,633,949 |  | 1,017,936 |
| Fiduciary Net Position |  |  |  |  |  |  |  |  |
| Beginning of Year: July 1 |  | 11,050 |  | 3,624,391 |  | 90,492,389 |  | 89,474,453 |
| End of Year: June 30 | \$ | 10,566 | \$ | 4,081,573 | \$ | 102,126,338 | \$ | 90,492,389 |

The accompanying notes are an integral part of this statement.

## Notes to the Financial Statements

## Note 1: Summary of Significant Accounting Policies and Plan Asset Matters

## A. Reporting Entity

The state of Washington, through DRS, administers eight retirement systems for public employees of the state and political subdivisions:

- Public Employees' Retirement System (PERS)
- School Employees' Retirement System (SERS)
- Public Safety Employees' Retirement System (PSERS)
- Teachers' Retirement System (TRS)
- Law Enforcement Officers' and Fire Fighters' Retirement System (LEOFF)
- Washington State Patrol Retirement System (WSPRS)
- Judicial Retirement System (JRS)
- Judges' Retirement Fund (JRF)

DRS also administers the state's Deferred Compensation Program (DCP).

Since DRS is part of the primary government of the state of Washington, it is considered part of the state's financial reporting entity and is included in the state's Comprehensive Annual Financial Report (CAFR).

The state of Washington's CAFR can be obtained from the Office of Financial Management's website at www.ofm.wa.gov/cafr.

## B. Basic Financial Statements

The financial statements provided in this report are fiduciary statements. Fiduciary funds report assets held for others in a trustee or agency capacity and, therefore, cannot be used to support the government's own programs. DRS' fiduciary funds are the retirement pension trust funds.

DRS' financial statements have been prepared in conformity with generally accepted accounting principles (GAAP). The statements include a "Statement of Fiduciary Net Position" (SFNP) and a "Statement of Changes in Fiduciary Net Position" (SCFNP).
to, deductions from and net increase (or decrease) in fiduciary net position for each plan for the year. The statements provide a separate column for each retirement plan DRS administers.

## C. Measurement Focus and Basis of Accounting

The retirement plans are accounted for in pension trust funds using the flow-of-economic-resources measurement focus and the accrual basis of accounting.

The members of the retirement systems, their employers and the state provide funding for the systems based on actuarial valuations. The Legislature establishes benefit levels and approves the actuarial assumptions used in determining contribution levels.

Plan member contributions are recognized as revenues in the period in which the contributions are earned. Employer contributions to each plan are recognized when due and the employer has made a formal commitment to provide the contributions. Benefits and refunds are recognized when due and payable in accordance with the terms of each plan.

The Deferred Compensation Program (DCP) is accounted for in a pension trust fund using the flow-of-economic-resources measurement focus and the accrual basis of accounting. Participant contributions are recognized as revenues in the period in which the contributions are due. Refunds are recognized when due and payable in accordance with the terms of the plan.

DRS maintains an administrative fund to account for the revenues and operating expenditures incurred in administering DCP. Since these costs are incurred in the administration of the program, they have been reported within the program.

The SFNP includes information about the assets, liabilities and fiduciary net position for each plan. The SCFNP includes information about the additions

## Notes to the Financial Statements (cont.)

## D. Method Used to Value Investments

The pension trust funds report investments at fair value and categorize fair value measurements within the fair value hierarchy established by generally
accepted accounting principles. Unrealized gains and losses are included in the SCFNP. The following table presents fair value measurements as of June 30, 2017.

| Investments Measured at Fair Value As of June 30, 2017 - Dollars in Thousands |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Investment Type |  | Fair Value |  | Level 1 Inputs |  | Level 2 Inputs |  | Level 3 Inputs |
| Debt Securities |  |  |  |  |  |  |  |  |
| Mortgage- and Other Asset-Backed Securities | \$ | 1,103,924 | \$ | - | \$ | 1,103,924 | \$ | - |
| Corporate Bonds |  | 9,032,643 |  | - |  | 9,032,643 |  | - |
| U.S. and Foreign Government and Agency Securities |  | 6,698,762 |  | - |  | 6,698,762 |  | - |
| Total Debt Securities |  | 16,835,329 |  | - |  | 16,835,329 |  | - |
| Equity Securities |  |  |  |  |  |  |  |  |
| Common and Preferred Stock |  | 21,377,285 |  | 21,313,177 |  | 60,427 |  | 3,681 |
| Depository Receipts and Other Miscellaneous |  | 689,637 |  | 688,069 |  | 254 |  | 1,314 |
| Mutual Funds and Exchange-Traded Funds |  | 2,208 |  | 2,208 |  | - |  | - |
| Real Estate Investment Trusts |  | 325,825 |  | 325,825 |  | - |  | - |
| Private Equity and Tangible Asset Funds |  | 179,782 |  | 179,782 |  | - |  | - |
| Total Equity Securities |  | 22,574,737 |  | 22,509,061 |  | 60,681 |  | 4,995 |
| Total Investments by Fair Value Level |  | 39,410,066 |  | 22,509,061 |  | 16,896,010 |  | 4,995 |
| Investments Measured at Net Asset Value |  |  |  |  |  |  |  |  |
| Private Equity |  | 19,372,048 |  | - |  | - |  | - |
| Real Estate |  | 16,292,892 |  | - |  | - |  | - |
| Tangible Assets |  | 3,348,292 |  | - |  | - |  | - |
| Collective Investment Trust Funds (Equity Securities) |  | 12,421,779 |  | - |  | - |  | - |
| Total Investments at Net Asset Value |  | 51,435,011 |  | - |  | - |  | - |
| Total Investments Measured at Fair Value | \$ | 90,845,077 | \$ | - | \$ | - | \$ | - |
| Other Assets at Fair Value |  |  |  |  |  |  |  |  |
| Collateral Held Under Securities Lending Agreements |  | 711,346 |  | - |  | 711,346 |  | - |
| Net Foreign Exchange Contracts Receivable - Forward and Spot |  | 16,936 |  | - |  | 16,936 |  | - |
| Net Swap Contracts Receivable |  | 512 |  | - |  | 512 |  | - |
| Margin Variation Receivable - Futures Contracts |  | $(10,251)$ |  | $(10,251)$ |  | - |  | - |
| Obligations Under Securities Lending Agreements |  | $(711,346)$ |  | - |  | $(711,346)$ |  | - |
| Total Other Assets Measured at Fair Value | \$ | 7,197 | \$ | $(10,251)$ | \$ | 17,448 | \$ | - |

## Notes to the Financial Statements (cont.)

Cash and Cash Equivalents: Cash and cash equivalents include highly liquid investments, which include foreign currencies and short-term investment funds. The shortterm investment funds are valued at cost. Accordingly, these investments are excluded from the fair value schedule. Cash and cash equivalents of $\$ 2.1$ billion are reported as liquidity in the SFNP.

Investments Classified as Level 1: Investments classified as Level 1 are exchange-rraded equity securities whose values are based on published market prices and quotations from national security exchanges as of the appropriate market close at the end of the reporting period.

Investments Classified as Level 2: Investments classified as Level 2 are primarily composed of publicly traded debt securities and exchange-traded stocks traded in inactive markets. Publicly traded debt securities are sourced from reputable pricing vendors using models that are market-based measurements representing their good faith opinion on the exit value of a security in an orderly transaction under current market conditions. Such models take into account quoted prices, nominal yield spreads, benchmark yield curves, prepayment speeds and other market-corroborated inputs.

Investments Classified as Level 3: Investments classified
as Level 3 were publicly traded equity securities that have noncurrent, or "stale," values and are included in the table at the most recent traded price. The stale pricing occurred due to trading suspensions, delisting from an active exchange or lack of investor demand. The current market values of these securities are unknown.

Investments Measured at Net Asset Value (NAV): The fair value of investments that are organized as limited partnerships and have no readily ascertainable fair value is determined by using the net asset value per share (or its equivalent) of the pension trust fund's ownership interest in partners' capital. These values are based on the individual investee's capital account balance reported at fair value by the general partner at the closest available reporting period, adjusted by subsequent contributions, distributions, management fees, and changes in values of foreign currency and published market prices for certain securities.

The limited partnerships' annual financial statements are audited by independent auditors. These investments make up approximately $42.1 \%$ of total investments as of June 30, 2017. However, due to the inherent uncertainties in estimating fair values, it is reasonably possible that the estimates could change in the near term or that the subsequent sale of assets would be different from the June 30, 2017, reported NAV.

Investments Measured at Net Asset Value (NAV)
As of June 30, 2017 - Dollars in Millions

| Liquidation Periods |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Fair value |  | Less Than 3 Years |  | 3 to 9 Years |  | 10 or More Years |  | Redemption Notice Period and Frequency |  | Unfunded mitments |
| Collective Investment Trust Funds (Equity Securities) | \$ | 12,421.8 | \$ | - | \$ | - | \$ | - | variable ${ }^{1}$ | \$ | - |
| Private Equity |  | 19,372.0 |  | 86.1 |  | 6,494.2 |  | 12,791.7 | $\mathrm{n} / \mathrm{a}^{2}$ |  | 12,899.9 |
| Real Estate |  | 16,292.9 |  | 1,388.0 |  | 1,590.1 |  | 13,314.8 | $n / \mathrm{a}^{2}$ |  | 7,008.2 |
| Tangible Assets |  | 3,348.3 |  | - |  | 589.6 |  | 2,758.7 | $\mathrm{n} / \mathrm{a}^{2}$ |  | 3,579.1 |
| Total Investments Measured at NAV | \$ | 51,435.0 | \$ | 1,474.1 | \$ | 8,673.9 | \$ | 28,865.2 |  | \$ | 23,487.2 |

${ }^{1}$ The retirement funds invest in three separate collective investment trust funds. Two passively managed funds allow for withdrawals on any business day at the discretion of the fund manager. The third fund seeks to achieve long-term capital appreciation through active investment management in emerging market countries and may redeem some or all of its holdings on each monthly valuation date.
${ }^{2}$ These investments can never be redeemed. Instead, the nature of these investments provides for distributions from the sale/liquidation of the underlying assets of the fund and from net operating cash flows. It is anticipated that the various investments within each asset class will be liquidated in the liquidation periods listed within the above schedule.

## Notes to the Financial Statements (cont.)

Private Equity Limited Partnerships: This includes 277 private equity limited liability partnerships that invest primarily in the United States, Europe and Asia in leveraged buyouts, venture capital, distressed debt and growth equity.

The fair value of individual capital account balances is based on the valuations private equity partnerships reported using the following methodologies to value the underlying porffolio companies:

- Valuations of publicly traded porifolio companies are based on active exchanges using quoted market prices as of the close of trading for each month end.
- When a portfolio company investment does not have a readily available market price but has a return that is determined by reference to an asset for which a market price is readily available, valuations are based on the closing market price of the reference asset on the valuation date, adjusted for factors that affect the fair value of the investment held.
- When the porffolio company's investments are private holdings and are not traded on active security exchanges, valuation methodologies consist primarily of income and market approaches. The income approach involves a discounted cash-flow analysis based on the porffolio company's projections. The market approach involves valuing a company at a multiple of a specified financial measure, generally earnings before interest, taxes, depreciation and amortization (EBITDA) based on multiples at which comparable companies trade.

Real Estate Limited Partnerships: This includes 36 real estate investments. Targeted investment structures within the real estate porffolio include real estate operating companies, limited liability companies, joint ventures, commingled funds and co-investments. Real estate partnerships provide the WSIB with quarterly valuations based on the most recent capital account balances. The partnerships value individual properties at least annually and adjust them as frequently as quarterly if material market or operational changes have occurred. Properties are generally externally valued every one to five years, depending on the partnership. Structured
finance investments receive quarterly value adjustments; the partners generally apply the assumption that all such positions will be held to maturity. Annual audits of most partnerships include a review of compliance with the partnerships' valuation policies.

Tangible Assets: This includes 40 limited liability structures and funds. The primary goals of the tangible asset porffolio are to generate a long-term sustainable and stable income stream as well as generate appreciation at least commensurate with inflation. Valuation practices of general partners and asset managers are consistent with private equity limited partnerships.

Collective Investment Trust Funds: The pension trust fund invests in three separate collective investment trust funds. Each fund determines a fair value by obtaining fair values of the underlying holdings using reputable pricing sources and computing an overall NAV per share. The holdings within each fund are publicly traded equity securities.

Two funds are passively managed to approximate the capitalization-weighted total rates of return of the MSCI U.S. Investable Market Index and the MSCI Emerging Markets Investable Market Index. Each fund has daily openings and contributions, and withdrawals can be made on any business day. The fund managers, at their discretion, may require withdrawal proceeds be made partially or wholly in kind. In certain circumstances, the fund managers might choose to suspend valuation and/or the right to make contributions and withdrawals from the fund. Such circumstances include actual or anticipated closure, restriction, or suspension of trading activity in any markets or exchanges in which the fund investments are traded; when the purchase, sale or pricing of the fund's investments would not be reasonably practicable or advisable; or when suspending contributions or withdrawals would be in the best interest of the fund or participants.

The third fund seeks to achieve long-term capital appreciation through active investment management in emerging market countries. The index against which the fund compares its performance is the MSCl Emerging Market Index. The pension trust fund may redeem some

## Notes to the Financial Statements (cont.)

or all of its holdings on each monthly valuation date. The fund managers may delay redemption proceeds if they determine that doing so is reasonably necessary to prevent a material adverse impact on the fund or other investors. The fund managers, at their discretion, may require withdrawal proceeds be made partially or wholly in kind.

## Other Assets and Liabilities Measured at Fair

Value: Forward exchange contracts are valued by interpolating a value using the spot foreign exchange rate and forward points (based on the spot rate and currency interest rate differentials), which are all inputs that are observable in active markets (Level 2).

Cash collateral held and the offsetting obligations under securities lending agreements are valued by the pension trust fund lending agency. They are sourced from reputable pricing vendors using models that are market-based measurements representing their good faith opinion on the exit value of a security in an orderly transaction under current market conditions. Such models take into account quoted prices, nominal yield spreads, benchmark yield curves, prepayment speeds and other market-corroborated inputs.

Gains and losses on futures contracts are settled daily, based on the underlying principal value, and do not involve an actual transfer of the specific instrument. The margin variation represents the current gain or loss remaining to be settled from the prior day. The custodial bank provides quoted prices for these securities from a reputable pricing vendor.

Unfunded Commitments: The WSIB has entered into agreements that commit the pension funds, upon request, to make additional investment purchases up to a predetermined amount. As of June 30, 2017, the retirement funds had the following unfunded investment commitments:

Unfunded Commitments
As of June 30, 2017 - Dollars in Millions

| Private Equity | $\$$ | $12,899.9$ |
| :--- | ---: | ---: |
| Real Estate | $\$$ | $7,008.2$ |
| Tangible Assets | $\$$ | $3,579.1$ |
| Total | $\$$ | $23,487.2$ |

## DCP, JRA and Plan 3 Self-Directed Investments Valuation:

| DCP, JRA and Plan 3 Self-Directed Investments <br> As of June 30, 2017 - Dollars in Thousands |  |
| :--- | ---: |
|  | Fair Value |
| Investments Measured at Net Asset Value |  |
| Target Date Funds (Retirement Strategy Funds) | $4,236,185$ |
| Equity Index Funds | $2,305,189$ |
| Bond Funds | 673,409 |
| Short-Term Investment Funds | 508,043 |
| Balanced Fund | 275,889 |
| Subtotal | $7,998,715$ |
| Investments Measured at Contract Value |  |
| Guaranteed Investment Contracts | $\mathbf{\$ 8 7 1 , 8 1 6}$ |
| Total | $\mathbf{8 , 8 7 0 , 5 3 1}$ |

DCP, JRA and Plan 3 defined contribution Self-directed investments have no unfunded commitments and can be redeemed daily with no notice period. Investments measured at fair value are daily valued funds. Funds are managed by the WSIB (Bond Fund), Alliance Bernstein (Target Date Funds), Walden Asset Management (Balanced Fund) and BlackRock (Equity Index Funds and Short-Term Investment Funds). All DCP and Plan 3 Self-Directed funds that are measured at fair value are measured at the NAV. The guaranteed investment contracts the WSIB manages for DCP are reported at contract value.

Trading restrictions have been established to safeguard participants against the effects of excessive trading. If a participant in DCP or Plan 3 transfers more than $\$ 1,000$ out of a fund, he or she will be required to wait 30 calendar days before transferring money back into that fund. The 30-day window is based on the last time the participant made a transfer out of the fund.

Bond Fund: The WSIB manages the Washington State Bond Fund. Investments in this fund are not available to the general public. The fund employs an active strategy that seeks to add incremental value over the index and normally invests in a diversified portfolio of investmentgrade corporate securities. The porffolio intends to earn additional returns through security selection, but it is allowed to deviate from the index's duration by plus or minus $15 \%$. The Bond Fund staff determines a NAV per share by obtaining fair values of the underlying

## Notes to the Financial Statements (cont.)

holdings, using reputable pricing sources on a daily basis. The holdings within this fund are publicly traded debt securities and are actively managed to meet or exceed the return of the Barclays Capital Intermediate Credit Index. The fund may redeem some or all holdings daily without restriction.

Balanced Fund: Walden Asset Management actively manages the Walden Socially Responsible Investment Balanced Fund. The fund is a well-diversified porffolio of stocks, bonds and money market instruments. At least $30 \%$ of the fund's assets are invested in fixed-income securities and, at most, $70 \%$ of the fund's assets are invested in foreign and domestic equity securities. The fund's asset allocation will vary based on Walden's assessment of global economic conditions, current valuations within capital markets, balancing risk and reward, and the relative attractiveness of stocks versus bonds. Equity investments will focus on an opportunity set of domestic and international companies Walden judges to be of higher quality than peers. Fixed income investments are restricted to investment-grade securities. No restrictions on redemptions exist.

Equity Index Funds: BlackRock Institutional Trust Co. manages the Equity Index funds, which include the U.S. Large Cap, Global, U.S. Small Cap Value and Emerging Market Equity Index Funds. BlackRock uses a passive, or indexing, approach to achieve each fund's investment objectives. It does not seek to outperform the index; rather, it seeks to track the index and does not seek temporary defensive positions when markets decline or appear overvalued.

The funds' investments are valued at fair value each day the fund is open for contributions and redemptions and, for financial reporting purposes, as of the report date, if the reporting period ends on a day the fund is not open. The BlackRock Global Valuation Methodologies Committee (GVMC) provides oversight of the valuation of investments for the fund. The investments of the funds are valued pursuant to the policies and procedures the GVMC developed and BlackRock's global valuation policy approved. Various inputs are used in determining the fair value of financial instruments and could be based on independent market data or be internally developed.

The U.S. Large Cap Equity Index Fund invests exclusively in the Equity Index Fund, which is an index fund that seeks investment results that correspond generally to the price and yield performance of a particular index. The fund is invested in a porffolio of equity securities. Its objective is to approximate the capitalization-weighted total rate of return of the segment of the U.S. market for publicly traded equity securities the larger capitalized companies represent. The criterion for selection of investments is the S\&P 500 Index.

The Global Equity Index Fund seeks investment results that correspond generally to the price and yield performance of a particular index. The fund is invested and reinvested primarily in equity securities. Its objective is to approximate the capitalizationweighted total rate of return of the entire global market for publicly traded equity securities as captured by the MSCI ACWI IMI USA Net Dividend Index. In seeking its objective, the fund invests in the Russell 3000 Index Fund E and the BlackRock MSCI ACWI ex-U.S. IMI Index Fund E in target weights, subject to periodic rebalancing. Each fund is an index fund that seeks investment results that correspond generally to the price and yield performance of a particular index.

The U.S. Small Cap Equity Index Fund invests exclusively in Russell 2000 Value Fund F, which is an index fund that seeks investment results that correspond generally to the price and yield performance of a particular index. The fund is invested and reinvested in a porffolio of equity securities. Its objective is to approximate the capitalization-weighted total rate of return of the segment of the U.S. market for publicly traded equity securities as the Russell 3000 Index represents, excluding the equity securities of the 1,000 largest capitalized companies. Of those 2,000 companies, the Russell 2000 Value Index represents those with a less-than-median orientation toward growth. Companies in this index generally have low price-to-book and price-to-earnings ratios, higher dividend yields, and lower forecasted growth values than more growth-oriented securities.

The Emerging Market Equity Index Fund is invested and reinvested in a portfolio of international equity

## Notes to the Financial Statements (cont.)

securities, depositary receipts, registered investment companies and derivatives. Its objective is to provide returns that approximate the capitalization-weighted total rates of return of the markets in certain countries for equity securities traded outside the United States.

Target Date Funds: Target Date Funds (Retirement Strategy Funds) are diversified asset allocation portfolios. The asset mix of each fund is adjusted over time to the allocation deemed appropriate for the target retirement date. Each fund has a diversified portfolio of equities and bonds that become progressively more conservative over time as the fund approaches and passes through its target date for retirement.

The assets of these funds are aggregated, and fair value is measured at the NAV. Alliance Bernstein is the fund manager of the Target Date Funds. The funds also include underlying funds that the WSIB and BlackRock manage, whose valuation methods are described within the Bond Fund (WSIB) and Equity Index Funds (BlackRock).

The fair value of debt instruments, such as bonds, and over-the-counter derivatives is generally based on market price quotations, recently executed market transactions, when observable, or industry-recognized modeling techniques.

When readily available market prices or relevant bid prices are not available for certain equity investments, such investments could be valued based on similar publicly traded investments, movements in relevant indices since last available prices, or underlying company fundamentals and comparable company data, such as multiples to earnings or other multiples to equity.

Options are valued using market-based inputs to models, broker or dealer quotations, or alternative pricing sources with reasonable levels of price transparency, when such inputs and models are available. Alternatively, the values might be obtained through unobservable management-determined inputs and/or management's proprietary models. When models are used, the selection of a particular model to value an option depends on the contractual terms
of, and specific risks inherent in, the option as well as the availability of pricing information in the market. Valuation models require a variety of inputs, including contractual terms, market prices, measures of volatility and correlations of such inputs.

Bank loan prices are provided by third-party pricing services and consist of a composite of the quotes the vendor receives, which creates a consensus price.

Pricing vendors' valuations of mortgage-backed or other asset-backed securities are based on both proprietary and industry-recognized models and discounted cashflow techniques. Significant inputs to the valuation of these instruments include value of the collateral, the rates and timing of delinquencies, the rates and timing of prepayments, and default and loss expectations, which are driven in part by housing prices for residential mortgages. Significant inputs are determined based on relative value analyses, which incorporate comparisons to instruments with similar collateral and risk profiles, including relevant indices.

Other fixed-income investments, including non-U.S. government and corporate debt, are generally valued using quoted market prices, if available, which are typically impacted by current interest rates, maturity dates and any perceived credit risk of the issuer. Additionally, in the absence of quoted market prices, pricing vendors use these inputs to derive valuations based on industry or proprietary models that incorporate issuer-specific data with relevant yield/ spread comparisons with more widely quoted bonds that have similar key characteristics.

## E. Use of Estimates

The preparation of financial statements in conformity with accounting principles generally accepted in the United States requires management to make estimates and assumptions that affect certain reported amounts and disclosures. Actual results could differ from the estimated amounts.

## F. Revenue Recognition - Investments

Interest and dividend income is recognized when earned. Capital gains and losses are recognized on a trade-date basis. Purchases and sales of investments are

## Notes to the Financial Statements (cont.)

also recorded on a trade-date basis.

## G. Allocations

DRS maintains a fund to account for the administrative additions and deductions incurred in administering the pension plans. These additions and deductions have been allocated to the pension plans.

DRS maintains a general capital assets fund to account for the capital assets used in administering the pension plans. These capital assets have been allocated to the pension plans based on asset balance. DRS also maintains a general long-term obligation fund to account for accumulated compensated absences incurred in administering the pension plans. These general long-term obligations have also been allocated to the pension plans based on asset balance.

## H. Deposits

The Office of the State Treasurer (OST) manages DRS' deposits, which consist of securities AAA-rated issuers issue or deposits in financial institutions the Federal Deposit Insurance Corp. (FDIC) partially insures or the Washington Public Deposit Protection Commission (PDPC) collateralizes up to legal limitations. The PDPC constitutes a multiple financial institution collateral pool. The PDPC's agent holds pledged securities under the pool in the name of the collateral pool.

State law (RCW 43.84.080) specifies that whenever a fund or cash balance in the state treasury is more than sufficient to meet the current expenditures properly payable therefrom, the OST may invest or reinvest such portion of the funds or balances as the OST deems expedient. The statute authorizes the OST to buy and sell the following types of instruments: U.S. government and agency securities, bankers' acceptances, commercial paper, and deposits with qualified public depositories.

Securities underlying repurchase and reverse repurchase agreements are limited to those same instruments. DRS receives its proportionate share of investment earnings from surplus balances in the state treasury based on its daily balance for the period. DRS' deposits are separately displayed on the SFNP as cash and pooled investments.

Custodial Credit Risk: "Custodial credit risk" is the risk that deposits might not be returned in the event of the failure of a financial institution. Statutes minimize custodial credit risk by restricting the OST to deposit funds in financial institutions that are physically located in Washington state unless otherwise expressly permitted by statute and authorized by the PDPC. As of June 30, 2017, the carrying amount of DRS' cash and pooled investment deposits is $\$ 40.2$ million, all of which is insured or collateralized.

## I. Securities Lending and Repurchase Agreements

Management responsibilities for securities lending and repurchase agreements are as follows:

WSIB: Washington state law and WSIB policy permit the WSIB to participate in securities lending transactions to augment the investment income of the retirement funds. The WSIB has entered into an agreement with State Street Corp. (SSC) to act as agent for the WSIB in securities lending transactions. Because SSC is the custodian bank for the WSIB, it is a counterparty to these transactions.

The fair value of the securities on loan as of June 30, 2017 , was approximately $\$ 1.9$ billion. The securities on loan remain in the SFNP in their respective categories. Cash collateral received totaling $\$ 711.3$ million is reported as a securities lending obligation, and the fair value of the reinvested cash collateral totaling $\$ 711.3$ million is reported as securities lending collateral in the SFNP.

Securities received as collateral that the WSIB does not have the ability to pledge or sell unless the borrower defaults are not reported as assets and liabilities. Securities received as collateral as of June 30, 2017, totaled \$1.18 billion.

The WSIB's agent loaned and collateralized debt and equity securities with cash and U.S. government or U.S. agency securities, including U.S. agency mortgagebacked securities (excluding letters of credit). When the loaned securities had collateral denominated in the same currency, the collateral requirement was 102\% of the fair value, including accrued interest of the

## Notes to the Financial Statements (cont.)

securities loaned. All other securities were required to be collateralized at $105 \%$ of the fair value, including accrued interest on the loaned securities.

The following table summarizes the securities held from reinvestment of cash collateral and securities received as collateral as of June 30, 2017:

Cash and Securities Held as Collateral
As of June 30, 2017 - Dollars in Millions

|  | Cash Collateral |  |  | Noncash Collateral |  | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Mortgage-Backed Securities | \$ | - | \$ | 1,002.4 | \$ | 1,002.4 |
| Repurchase Agreements |  | 311.5 |  | - |  | 311.5 |
| Yankee CD |  | 129.5 |  | - |  | 129.5 |
| Commercial Paper |  | 158.8 |  | - |  | 158.8 |
| U.S. Treasuries |  | - |  | 182.1 |  | 182.1 |
| Cash Equivalents and Other |  | 111.4 |  | - |  | 111.4 |
| Total Collateral Held ${ }^{1}$ | \$ | 711.3 | \$ | 1,184.5 | \$ | 1,895.8 |

${ }^{1}$ Total collateral held excludes collateral the OST holds under securities lending agreements. This schedule includes only the collateral the WSIB holds under securities lending agreements.

During fiscal year 2017, securities lending transactions could be terminated on demand by either the WSIB or the borrower.

As of June 30, 2017, the collateral held had an average duration of 19.1 days and an average weighted final maturity of 62.6 days. Because the securities lending agreements were terminable at will, their duration did not generally match the duration of the investments made with the cash collateral. Noncash collateral could not be pledged or sold, absent borrower default. A specific borrower could hold no more than $20 \%$ of the total-on-loan value. Collateral investment guidelines specifically prohibit European domiciled holdings. There were no restrictions on the amount of securities that can be lent.

Securities were lent with the agreement that they would be returned in the future for exchange of the collateral. SSC indemnified the WSIB by agreeing to purchase replacement securities or return the cash collateral in the event a borrower failed to return the loaned securities or pay distributions thereon. SSC's responsibilities included performing appropriate borrower and collateral investment credit analyses,
demanding adequate types and levels of collateral, and complying with applicable federal regulations concerning securities lending.

During fiscal year 2017, there were no significant violations of legal or contractual provisions or failures by any borrowers to return loaned securities or to pay distributions thereon. Further, the retirement funds incurred no losses during the fiscal year resulting from a default by either borrowers or securities lending agents.

The WSIB mitigates credit risk in securities lending with a policy that strictly limits the types of collateral that may be used to secure these transactions.

Office of the State Treasurer (OST): State statutes permit the OST to lend securities to broker-dealers and other entities with a simultaneous agreement to return the collateral for the same securities in the future. The OST, which has contracted with Citibank as lending agent, receives earnings for this activity.

The OST lending agent lends U.S. government and U.S. agency securities and receives collateral, which can be in the form of cash or other securities. The collateral, which must be valued at $102 \%$ of the fair market value of the loaned securities, is priced daily and, if necessary, action is taken to maintain the collateralization level at 102\%.

The lending agent invests the cash in accordance with investment guidelines the OST approved. The custodian holds the securities held as collateral and the securities underlying the cash collateral. One option available to the lending agent is to invest cash collateral into an OST account in the Local Government Investment Pool (LGIP).

The contract with the lending agent requires indemnification of the OST if the borrowers fail to return the securities (or if the collateral is inadequate to replace the securities lent) or if the borrower fails to pay the OST for income distribution by the securities' issuers while the securities are on loan. The OST cannot pledge or sell collateral securities received unless the borrower defaults. As of June 30, 2017, securities lent totaled $\$ 1.4$ million. Collateral held under securities

## Notes to the Financial Statements (cont.)

lending agreements and obligations under securities lending agreements each totaled $\$ 1.4$ million, which was invested in the LGIP.

State law also permits the OST to enter into reverse repurchase agreements (that is, a sale of securities with a simultaneous agreement to repurchase them in the future at the same price plus a contract rate of interest). The fair value of the securities underlying reverse repurchase agreements normally exceeds the cash received, providing the dealers a margin against a decline in the fair value of the securities.

If the dealers default on their obligations to resell these securities to the OST or provide securities or cash of equal value, the retirement funds would suffer an economic loss equal to the difference between the fair value plus accrued interest of the underlying securities and the agreement obligation, including accrued interest.

During fiscal year 2017, the OST did not engage in reverse repurchase activity and it incurred no losses by default, nor recovered prior period losses, from these transactions. As of June 30, 2017, no obligations were under reverse repurchase agreements.

The OST limits its credit risk with an investment policy that restricts the types of investments in which the OST can participate. Additionally, the investment policy requires that any securities on loan be made available by the lending agent for next day liquidity at the option of the OST. During fiscal year 2017, the OST had no credit-risk exposure to borrowers because the amounts owed to the borrowers exceeded the amounts the borrowers owed the OST.

The OST investment policy requires that securities purchased be held by the master custodian, acting as an independent third party, in its safekeeping or trust department. Securities-utilized repurchase agreements are subject to additional restrictions. These restrictions are designed to limit exposure to risk and ensure the safety of the investment.

During fiscal year 2017, there were no violations of legal or contractual provisions or any losses resulting
from a default by either borrowers or securities lending agent.

## J. Investments

The WSIB has investment management responsibility for the retirement and DCP funds. The WSIB may invest as provided by statute (Chapter 43.33A RCW) and WSIB policy in the following:

- U.S. treasury bills
- Discount notes
- Repurchase agreements
- Reverse repurchase agreements
- Bankers' acceptances
- Commercial paper
- Guaranteed investment contracts
- U.S. government and agency (governmentsponsored corporations eligible for collateral purposes at the Federal Reserve) securities
- Non-U.S. dollar bonds
- Investment-grade corporate bonds
- Noninvestment-grade corporate bonds
- Publicly traded mortgage-backed securities
- Privately placed mortgages
- Private placements of corporate debt
- U.S. and foreign common stock
- U.S. preferred stock
- Convertible securities
- Private equity, including but not limited to investment corporations, partnerships and limited liability companies for venture capital, leveraged buyouts, real estate and other tangible assets, or other forms of private equity
- Asset-backed securities
- Derivative securities, including futures, options, options on futures, forward contracts and swap transactions

No violations of these investment restrictions occurred during fiscal year 2017.

Interest Rate Risk: "Interest rate risk" is the risk that changes in interest rates over time will adversely affect the fair value of an investment. This risk is managed within the portfolios using effective duration, which is the measure of a debt investment's exposure to fair value changes arising from changes in interest rates. Increases in prevailing interest rates generally translate

## Notes to the Financial Statements (cont.)

into decreases in the fair values of those investments.

The retirement funds' fixed-income investments are actively managed to meet or exceed the return of the Barclays Capital Universal Index, with volatility similar to or less than the index. As of June 30, 2017, the retirement funds' duration was within the duration target of this index.

The schedule below provides information about the interest rate risks associated with the categorized investments in the Commingled Trust Fund (CTF) as of June 30, 2017. The schedule displays asset classes held by maturity in years and effective durations. Residential mortgage-backed, commercial mortgagebacked and asset-backed securities are reported using the average life within the portfolio.
"Average life" is a calculated estimate of the average time until maturity for these securities, taking into account possible prepayments of principal. All other categorized securities on this schedule are reported using the stated maturity date.

Credit Risk: "Credit risk" is the risk that an issuer or other counterparty to an investment will not fulfill its obligations. The WSIB's investment policies for the retirement funds limit the fixed-income securities to investment grade or higher at the time of purchase. Investment-grade securities are those fixed income securities with a Moody's rating of Aaa to Baa, or a Standard and Poor's rating of AAA to BBB. The retirement funds' rated debt investments as of June 30, 2017, were rated by Moody's and/or an equivalent national rating organization.


## Notes to the Financial Statements (cont.)

| Investment Credit Ratings <br> As of June 30, 2017 - Dollars in Thousands |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Moody's Equivalent Rating |  | Total Fair Value | Mortgage- and Other Asset-Backed Securities |  | Corporate Bonds |  | U.S. Government and Agency Securities |  | Foreign Government and Agency Securities |  |
| Aaa | \$ | 6,784,501 | \$ | 1,103,077 | \$ | 448,366 | \$ | 5,130,791 | \$ | 102,267 |
| Aa1 |  | 58,807 |  | - |  | - |  | - |  | 58,807 |
| Aa2 |  | 156,140 |  | - |  | 92,511 |  | - |  | 63,629 |
| Aa3 |  | 615,938 |  | - |  | 393,998 |  | - |  | 221,940 |
| A1 |  | 849,575 |  | - |  | 804,781 |  | - |  | 44,794 |
| A2 |  | 352,962 |  | 145 |  | 352,817 |  | - |  | - |
| A3 |  | 1,327,130 |  | - |  | 1,259,094 |  | - |  | 68,036 |
| Baa1 |  | 1,340,787 |  | - |  | 1,239,621 |  | - |  | 101,166 |
| Baa2 |  | 1,544,170 |  | - |  | 1,396,811 |  | - |  | 147,359 |
| Baa3 |  | 1,987,754 |  | - |  | 1,781,000 |  | - |  | 206,754 |
| Ba1 or Lower |  | 1,817,565 |  | 702 |  | 1,263,644 |  | - |  | 553,219 |
| Total | \$ | 16,835,329 | \$ | 1,103,924 | \$ | 9,032,643 | \$ | 5,130,791 | \$ | 1,567,971 |

Credit ratings for the retirement funds' rated debt investments as of June 30, 2017, are presented in the schedule above.

Concentration of Credit Risk: "Concentration of credit risk" is the risk of loss attributed to the magnitude of an investment in a single issuer.

The retirement funds' policy states that no corporate fixed-income issue shall exceed $3 \%$ of cost at the time of purchase or $6 \%$ of fair value of the fund thereafter and that no high-yield issues shall exceed $1 \%$ of cost or $2 \%$ of the fair value of the fund.

No concentration of credit risk exceeded these policy guidelines as of June 30, 2017. Additionally, no single investment (other than any issued or explicitly guaranteed by the U.S. government or involving mutual funds or investment pools) comprised more than $5 \%$ of DRS' net investments at the end of fiscal year 2017.

Custodial Credit Risk: "Custodial credit risk" is the risk that if a depository institution or counterparty were to fail, the WSIB would not be able to recover the value of its deposits, investments or collateral securities.

As of June 30, 2017, investment securities (excluding cash, cash equivalents and repurchase agreements held as securities lending collateral) were registered
and held in the name of the WSIB for the benefit of the retirement funds and were not exposed to custodial credit risk. The WSIB has no general policies relating to custodial credit risk.

Foreign Currency Risk: "Foreign currency risk" is the risk that changes in exchange rates will adversely affect the fair value of an investment or a deposit. The WSIB does not have a formal policy to limit the retirement funds' foreign currency risk.

The WSIB manages exposure to fair value loss by requiring its international securities investment managers to maintain diversified portfolios by sector and by issuer to limit foreign currency and security risk.

The retirement funds' exposure to foreign currency risk as of June 30, 2017, is presented in the schedule on page 41. The schedule, stated in U.S. dollars, provides information on deposits and investments held in various foreign currencies. Private equity and real estate are presented according to the financial reporting currency of the individual funds.

Derivatives: Derivative management responsibilities are described in the following paragraphs.

OST: The OST did not engage in derivative transactions during fiscal year 2017.

## Notes to the Financial Statements (cont.)

## Foreign Currency Exposure by Country

As of June 30, 2017 - Dollars in Thousands, Investment Type in U.S. Dollar Equivalent

| Foreign Currency Denomination | Cash and Cash Equivalents |  | Debt Securities |  |  | Equity Securities | Derivatives |  |  | Alternative Assets |  | Open Foreign Exchange tracts — Net | \% of Total Investment Balances |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Australian Dollar | \$ | 8,928 | \$ | 185,767 | \$ | 535,958 | \$ | 45,076 | \$ | 371 | \$ | 776,100 | 0.8\% |
| Brazilian Real |  | 1,412 |  | 182,059 |  | 182,973 |  | - |  | 149 |  | 366,593 | 0.4\% |
| Canadian Dollar |  | 16,159 |  | - |  | 695,267 |  | - |  | 373 |  | 711,799 | 0.8\% |
| Swiss Franc |  | 61 |  | - |  | 972,810 |  | - |  | 1,347 |  | 974,219 | 1.1\% |
| Chilean Peso |  | 186 |  | 63,458 |  | 18,511 |  | - |  | (78) |  | 82,078 | 0.1\% |
| Colombian Peso |  | 3 |  | 80,867 |  | 866 |  | - |  | - |  | 81,737 | 0.1\% |
| Danish Krone |  | 35 |  | - |  | 190,625 |  | - |  | 1,590 |  | 192,250 | 0.2\% |
| Euro |  | 11,303 |  | - |  | 3,392,487 |  | 2,936,739 |  | 3,404 |  | 6,343,933 | 6.8\% |
| Pound Sterling |  | 14,658 |  | - |  | 2,242,406 |  | - |  | 39 |  | 2,257,104 | 2.4\% |
| Hong Kong Dollar |  | 7,059 |  | - |  | 797,536 |  | - |  | (68) |  | 804,528 | 0.9\% |
| Indonesian Rupiah |  | 414 |  | 29,537 |  | 66,820 |  | - |  | 2 |  | 96,773 | 0.1\% |
| Indian Rupee |  | 1,486 |  | 88,556 |  | 327,726 |  | - |  | (10) |  | 417,758 | 0.4\% |
| Japanese Yen |  | 14,571 |  | - |  | 2,649,484 |  | - |  | 5,600 |  | 2,669,655 | 2.9\% |
| South Korean Won |  | 5,546 |  | - |  | 399,043 |  | - |  | 1,661 |  | 406,249 | 0.4\% |
| Mexican Peso |  | 1,519 |  | 84,024 |  | 87,848 |  | - |  | 1,012 |  | 174,404 | 0.2\% |
| Malaysian Ringgit |  | 831 |  | 48,863 |  | 58,363 |  | - |  | - |  | 108,057 | 0.1\% |
| Swedish Krona |  | 2,329 |  | - |  | 403,028 |  | - |  | (209) |  | 405,147 | 0.4\% |
| Singapore Dollar |  | 535 |  | - |  | 190,988 |  | - |  | 91 |  | 191,614 | 0.2\% |
| Thailand Baht |  | 819 |  | - |  | 92,956 |  | - |  | (17) |  | 93,758 | 0.1\% |
| Turkish Lira |  | 155 |  | 21,304 |  | 138,015 |  | - |  | 476 |  | 159,950 | 0.2\% |
| New Taiwan Dollar |  | 33 |  | - |  | 241,547 |  | - |  | (228) |  | 241,353 | 0.3\% |
| South African Rand |  | 353 |  | - |  | 126,128 |  | - |  | 341 |  | 126,822 | 0.1\% |
| Other |  | 1,204 |  | 110,371 |  | 192,095 |  | - |  | 1,089 |  | 304,760 | 0.3\% |
| Total Foreign Currency Exposure | \$ | 89,599 | \$ | 894,806 | \$ | 14,003,480 | \$ | 2,981,815 | \$ | 16,935 | \$ | 17,986,641 | 19.3\% |

Source: Washington State Investment Board

WSIB: The WSIB is authorized to use various derivative financial instruments, including financial futures, forward contracts, interest rate swaps, credit default swaps, equity swaps and options. Derivative transactions involve, to varying degrees, market and credit risk. As of June 30, 2017, the retirement funds held investments in financial futures and forward currency contracts that are recorded at fair value with changes in value recognized in investment income in the SCFNP in the period of change. For accounting and reporting purposes, the derivative instruments are considered investment derivatives, not hedging derivatives.

Derivatives are generally used to achieve the desired market exposure of a security, index or currency; adjust portfolio duration; or rebalance the total porffolio to
the target asset allocation. Derivative contracts are instruments that derive their value from underlying assets, indices, reference interest rates or a combination of these factors. A derivative instrument could be a contract negotiated on behalf of the retirement funds and a specific counterparty. This would typically be referred to as an "over-the-counter (OTC) contract," such as forward contracts. Alternatively, derivative instruments, such as futures, could be listed and traded on an exchange and referred to as "exchange traded."

Derivatives that are exchange traded are not subject to credit risk.

Inherent in the use of OTC derivatives, the retirement funds are exposed to counterparty credit risk on all

## Notes to the Financial Statements (cont.)

## Derivatives Schedule

Significant Terms for Derivatives Held as Investments by the WSIB - Dollars in Thousands

|  | Classification | Changes in Fair Value - Included in Investment Income |  | Fair Value as of June 30, 2017 Investment Derivative |  |  | Notional |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Amount |  | Amount |  |  |
| Futures Contracts |  |  |  |  |  |  |  |
| Bond Index Futures | investment | \$ | $(1,219)$ | \$ | $(1,536)$ | \$ | 420,751 |
| Equity Index Futures | investment |  | 268,879 |  | $(8,715)$ |  | 83,616 |
|  |  |  | 267,660 |  | $(10,251)$ |  | 504,367 |
| Forward Currency Contracts | investment |  | 20,733 |  | 16,956 |  | 2,167,316 |
| Total Return Swap Contracts |  |  |  |  |  |  |  |
| Total Return Swap Bond | investment |  | $(1,374)$ |  | 141 |  | 32,758 |
| Total Return Swap Equity | investment |  | 13,169 |  | 108 |  | $(98,176)$ |
|  |  | \$ | 11,795 | \$ | 249 | \$ | $(65,418)$ |

open OTC positions. "Counterparty credit risk" is the risk that a derivative counterparty might fail to meet its payment obligation under the derivative contract. As of June 30, 2017, the retirement funds' counterparty risk was deemed insignificant.

Futures contracts are standardized, exchange-traded contracts to purchase or sell a specific financial instrument at a predetermined price. Gains and losses on futures contracts are settled daily based on an underlying principal value and do not involve an actual transfer of the specific instrument. The exchange assumes the risk that the counterparty will not pay and generally requires margin payments to minimize such risk. Futures are generally used to achieve the desired market exposure of a security or index or to rebalance the total poriffolio.

Forward currency contracts are agreements to exchange the currency of one country for the currency of another country at an agreed-upon price and settlement date. These forward commitments are not standardized and carry credit risk due to the possible nonperformance of one of the counterparties. The maximum potential loss is the aggregate face value in U.S. dollars at the time the contract was opened; however, the likelihood of such a loss is remote.

As of June 30, 2017, the retirement funds had outstanding forward currency contracts with a net unrealized gain of $\$ 16.9$ million, which is included in
the accompanying SCFNP. The contracts have varying maturity dates ranging from July 3,2017 , through September 20, 2017.

As of June 30, 2017, the counterparties' credit ratings for forward currency contracts that are subject to credit risk had a credit rating of no less than A3 using Moody's rating scale.

As of June 30, 2017, the retirement funds' fixed income porffolio held derivative securities consisting of collateralized mortgage obligations of $\$ 40.4$ million. Domestic and foreign passive equity index fund managers may also use various derivative securities to manage exposure to risk and increase porffolio returns. Information on passive equity index fund managers' use and holdings of derivative securities is unavailable.

The schedule above presents the significant terms for derivatives held as investments by the WSIB.

## Investments Not Required to Be Categorized:

Certain investment types in DRS' portfolio cannot be categorized within the guidelines GASB Statement No. 3 established. These investments total about $\$ 76.2$ billion in both carrying value and fair value.

DCP, JRA and Defined Contribution - Self-Directed
Investments: The assets within DCP, JRA and Self-directed defined contribution investments total $\$ 8.9$ billion and represent less than $9 \%$ of the total investments DRS

## Notes to the Financial Statements (cont.)

Investment Maturities - DCP, JRA and Plan 3 DC Self-Directed Investments - Bond Funds As of June 30, 2017 - Dollars in Thousands

|  | Maturity |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Investment Type |  | Total <br> Fair Value |  | Less Than |  | 1-5 Years |  | 6-10 Years | Effective Duration |
| Corporate Bonds | \$ | 592,600 | \$ | 62,375 | \$ | 288,725 | \$ | 241,500 | 6.02 |
| Foreign Government and Agency Securities |  | 60,607 |  | 6,385 |  | 15,120 |  | 39,102 | 5.63 |
| U.S. Government and Agency Securities |  | 20,202 |  | 4,047 |  | 16,155 |  | - | 5.51 |
| Total | \$ | 673,409 | \$ | 72,807 | \$ | 320,000 | \$ | 280,602 |  |

Credit Ratings (Moody's Equivalent) - DCP, JRA and Plan 3 DC Self-Directed Investments - Bond Funds

As of June 30, 2017 - Dollars in Thousands

administers. Participation and membership in these options are voluntary. Although withdrawals from the options are restricted to those who have left employment (except in the case of hardship withdrawals from DCP), the participants and members own these assets, have full control over their investment choices and assume the responsibility for the results of those choices.

The composition of these investments is as follows:

- $48 \%$ Retirement Strategy Funds (Target Date Funds): These funds are customized asset allocation porffolios that WSIB-contracted investment professionals manage. They offer investors a diversified mix of equities, bonds and global Real Estate Investment Trusts in fiveyear increments. Each of these funds has both actively and passively managed investments. The investment mix becomes progressively more conservative over time as the fund approaches and passes through its target date for retirement. These funds are not publicly traded and, thus, have no ratings. Foreign credit risk and fixed income exposure are deemed immaterial for
these funds as of June 30, 2017.
- $26 \%$ Equity Index Funds: Four funds are in this category. All are passively managed, and all seek to meet or surpass the returns of established benchmarks.
- $10 \%$ Guaranteed Investment Contracts (GICs): GICs are valued at contract value as the respective insurance companies or investment managers estimate. GICs provide a guaranteed return on the principal invested over a specified time period. The GIC pool has no credit rating because it is not a publicly traded fund. The pool has no duration since GICs are priced at par. The GIC pool contained no foreign currency exposure as of June 30, 2017.
- $6 \%$ Short-Term Investment Fund: This fund is not publicly traded.
- $3 \%$ U.S. Socially Responsible Fund: This is a balanced fund containing both equities and fixed-income components.
- $7 \%$ Bond Fund: The Washington State Bond Fund has no rating because it is not publicly traded. Refer to the tables for the maturities,


## Notes to the Financial Statements (cont.)

effective duration and credit ratings of its underlying securities.

Management Fees: The fees the WSIB paid are accounted for as a reduction of investment income or are netted directly from the asset value of the retirement funds' investments. These fees include investment management fees and commissions, investment consultant fees, and legal fees.

As of June 30, 2017, total investment management fees paid were $\$ 402.5$ million and total netted fees were $\$ 23.2$ million. For a detailed disclosure, refer to the "Schedule of Investment Expenses" in the "Supporting Schedules" of the Financial Section of this report.

## K. Reserves

Member Reserves: Member reserves reflect the total liability for all contributions members have made. Employee contributions and interest earnings increase these reserves; contribution refunds and transfers to the benefit reserves for current-year retirees decrease these reserves. The member reserves are considered fully funded.

Because PERS Plan 3, SERS Plan 3 and TRS Plan 3 defined contribution plans each offer two separate investment programs to members, DRS maintains two separate member reserves for each defined contribution plan. The WSIB reserves account for members who participate in the WSIB's Total Allocation Portfolio (TAP). The Self reserves account for members who participate in the self-directed investment offerings.

Member reserves as of June 30, 2017 and 2016, appear in the next column.

Benefit Reserves: The benefit reserves reflect the funded liability associated with all retired members of DRSadministered systems. These reserves are increased by employer contributions, state contributions, investment earnings and employee contributions that are attributable to current-year retirees. These reserves are decreased by the amounts of pensions actually paid in the current year, interest payments transferred to the member reserves and administrative expenses in support of the trust funds.

Benefit reserves as of June 30, 2017 and 2016, appear at the bottom of this column.

| Member Reserves as of June 30, 2017 and 2016 Dollars in Thousands |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  |  | June 30, 2017 |  | June 30, 2016 |
| PERS Plan 1 | \$ | 429,249 | \$ | 509,696 |
| PERS Plan $2 / 3$ |  | 6,579,738 |  | 6,158,740 |
| PERS Plan 3 -WSIB |  | 1,702,141 |  | 1,484,245 |
| PERS Plan 3 - Self |  | 1,142,942 |  | 996,170 |
| SERS Plan $2 / 3$ |  | 525,189 |  | 481,862 |
| SERS Plan 3 - WSIB |  | 1,429,218 |  | 1,272,515 |
| SERS Plan 3 - S |  | 482,341 |  | 429,003 |
| PSERS Plan 2 |  | 199,156 |  | 171,872 |
| TRS Plan 1 |  | 173,993 |  | 219,887 |
| TRS Plan $2 / 3$ |  | 740,551 |  | 675,956 |
| TRS Plan 3 - WSIB |  | 5,206,679 |  | 4,556,884 |
| TRS Plan 3 - Self |  | 3,184,941 |  | 2,810,225 |
| LEOFF Plan 1 |  | 8,647 |  | 13,497 |
| LEOFF Plan 2 |  | 2,636,918 |  | 2,521,679 |
| WSPRS Plan 1/2 |  | 92,190 |  | 87,525 |
| JRS |  | - |  | - |
| JRF |  | - |  | - |
| Total Member Reserves | \$ | 24,533,893 | \$ | 22,389,756 |

Benefit Reserves as of June 30, 2017 and 2016
Dollars in Thousands

|  | June 30, 2017 |  |  | June 30, 2016 |
| :---: | :---: | :---: | :---: | :---: |
| PERS Plan 1 | \$ | 7,067,671 | \$ | 6,616,706 |
| PERS Plan 2/3 |  | 28,421,065 |  | 24,323,885 |
| SERS Plan 2/3 |  | 4,338,371 |  | 3,732,178 |
| PSERS Plan 2 |  | 304,521 |  | 228,844 |
| TRS Plan 1 |  | 5,585,500 |  | 5,367,134 |
| TRS Plan 2/3 |  | 11,783,037 |  | 10,122,970 |
| LEOFF Plan 1 |  | 5,727,850 |  | 5,357,372 |
| LEOFF Plan 2 |  | 9,119,321 |  | 7,673,990 |
| LEOFF Plan 2 - Medical |  | 19,888 |  | 14,951 |
| WSPRS Plan 1/2 |  | 1,118,559 |  | 1,010,521 |
| WSPRS Plan 1/2 - Medical |  | 90 |  | 82 |
| JRS |  | 7,397 |  | 6,776 |
| JRF |  | 683 |  | 581 |
| Total Benefit Reserves | \$ | 73,493,953 | \$ | 64,455,990 |

The funded status of each of the benefit reserves is the same as the funded status of each of the respective pension plans, which is shown in the "Solvency Test" schedules in the Actuarial Section of this CAFR.

## Notes to the Financial Statements (cont.)

## L. Capital Assets

All capital assets with a unit cost (including ancillary costs) of \$5,000 or more are capitalized and reported in the accompanying financial statements. Capital leases with a net present value or fair market value, whichever is less, of $\$ 10,000$ or more are capitalized and also included in these financial statements. All purchased capital assets are valued at cost when historical records exist. Donated capital assets are valued at their estimated fair market value on the date of donation. Where necessary, estimates of original cost and fair market value are derived by factoring price levels from the current period to the time of acquisition.

Capital asset costs include the purchase price or construction cost plus those costs necessary to place the asset in its intended location and condition for use. Normal maintenance and repair costs that do not materially add to the value or extend the life of the asset are not capitalized.

Depreciation is calculated using the straight-line method with estimated useful lives of five to 50 years for buildings and three to 50 years for furnishings and equipment, other improvements, and miscellaneous capital assets.

The following is a summary of changes in capital assets for fiscal year 2017:

```
Changes in Capital Assets
For Fiscal Year 2017 - Dollars in Thousands
```

| Assets | Beginning Balance | Acquisition/ Increase Depreciation | Disposal | Ending Balance |
| :---: | :---: | :---: | :---: | :---: |
| Improvements Other Than Buildings | \$ 645 | \$ | \$ | \$ 645 |
| Furnishings and Equipment | 1,637 | 55 | (149) | 1,543 |
| Accumulated | $(2,085)$ | (69) | 149 | $(2,005)$ |
| Depreciation |  |  |  |  |
| Total | \$ 197 | \$ (14) | \$ | \$ 183 |

## M. Leases

DRS leases office facilities and office and computer equipment. Lease terms vary. Leases are considered noncancelable for financial reporting purposes. All DRS leases are classified as operating leases with the
lease payments recorded as expenditures or expenses during the life of the lease. Certain operating leases are renewable for specified periods. In most cases, management expects that the leases will be renewed or replaced by other leases.

The following schedule presents future minimum payments for operating leases as of June 30, 2017:

> Future Minimum Payments for Operating Leases As of June 30, 2017 - Dollars in Thousands

| Fiscal Year | Payments |  |
| :--- | ---: | ---: |
| 2017 | $\$$ | 1,537 |
| 2018 | 1,512 |  |
| 2019 | 1,085 |  |
| 2020 | 208 |  |
| 2021 | 31 |  |
| 2022 and beyond | $\mathbf{-}$ |  |
| Total Future Minimum Payments | $\mathbf{\$}$ | $\mathbf{4 , 3 7 3}$ |

The total operating lease rental expenditure for fiscal year 2017 was $\$ 1.5$ million.

## N. Other Long-Term Obligations

Annual Leave: DRS employees accrue annual leave at a variable rate based on years of service. In general, accrued annual leave cannot exceed 30 days at the employee's anniversary date. The expense and accrued liability is recognized when the annual leave is earned. DRS' liability for accumulated annual leave was $\$ 0.9$ million as of June 30, 2017.

Sick Leave: Employees accrue sick leave at the rate of one day per month without limitation on the amount that can be accumulated. Sick leave is not vested (that is, the department does not pay employees for unused sick leave upon termination except in the event of the employee's death or retirement; at such time, DRS is liable for $25 \%$ of the employee's accumulated sick leave).

In addition, the state has a sick-leave buyout option. Each January, employees who have accumulated sick leave in excess of 60 days may redeem sick leave earned but not taken during the previous year at the rate of one day's pay in exchange for four days of sick leave. The expense and accrued liability is recognized when the sick leave is earned. DRS' liability for

## Notes to the Financial Statements (cont.)

accumulated sick leave was $\$ 0.4$ million as of June 30 , 2017.

The following is a summary of changes in compensated absences for the fiduciary funds for fiscal year 2017:

| Changes in Compensated Absences <br> For Fiscal Year 2017 - Dollars in Thousands |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Compensated Absences |  | inning |  | ditions |  | Deletions |  | Ending Balance |
| Annual Leave | \$ | 998 | \$ | 1,167 | \$ | $(1,228)$ | \$ | 937 |
| Sick Leave |  | 433 |  | 163 |  | (175) |  | 421 |
| Total | \$ | 1,431 | \$ | 1,330 | \$ | $(1,403)$ | \$ | 1,358 |

## O. Transfers

Transfers from and to other pension plans, as reported in the financial statements, typically reflect routine transfers among the various trust funds resulting from plan membership changes and member-directed plan selections. In fiscal year 2017, these transfers totaled $\$ 10.4$ million and represented a $\$ 4.5$ million increase from the previous year.

## P. Contingencies - Litigation

As a state agency, DRS is party to legal proceedings that normally occur in governmental operations. Pending legal actions involving DRS exist. For each pending legal action, DRS has good defenses and will continue to bring a vigorous defense to each case.

## Notes to the Financial Statements (cont.)

## Note 2: General Description of the Retirement Systems

## A. General

The state Legislature establishes and amends laws pertaining to the creation and administration of all public retirement systems. As established in the Revised Code of Washington (RCW) Chapter 41.50, the Department of Retirement Systems (DRS) administers eight retirement systems covering eligible employees of the state and local governments.

The governor appoints the director of DRS.

Administration of the retirement systems is funded by a current employer rate of $0.18 \%$ of reported compensation.

The retirement systems are composed of 12 defined benefit pension plans and three combination defined benefit plans that have defined contribution components.

They include:

## Cost-Sharing, Multiple-Employer Plans

Public Employees' Retirement System (PERS)
Plan 1: Defined benefit
Plan 2: Defined benefit
Plan 3: Defined benefit/defined contribution
School Employees' Retirement System (SERS)
Plan 2: Defined benefit
Plan 3: Defined benefit/defined contribution

## Public Safety Employees' Retirement System (PSERS)

Plan 2: Defined benefit
Teachers' Retirement System (TRS)
Plan 1: Defined benefit
Plan 2: Defined benefit
Plan 3: Defined benefit/defined contribution

## Law Enforcement Officers' and Fire Fighters'

 Retirement System (LEOFF)Plan 1: Defined benefit
Plan 2: Defined benefit

## Single-Employer Plans

Washington State Patrol Retirement System
(WSPRS) (WSPRS)

Plan 1: Defined benefit

Plan 2: Defined benefit
Judicial Retirement System (JRS)
Defined benefit
Judges' Retirement Fund (JRF)
Defined benefit

## Notes to the Financial Statements (cont.)

| Number of Participating Members |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Plan | $\begin{array}{r}\text { Retirees and } \\ \text { Beneficiaries }\end{array}$ Receiving Benefits | Terminated Members Entitled to But Not Yet Receiving Benefits | Active Plan Members Vested | Active Plan <br> Members Nonvested | Total |
| PERS Plan 1 | 48,268 | 663 | 2,397 | 196 | 51,524 |
| PERS Plan 2 | 46,675 | 27,835 | 81,168 | 41,222 | 196,900 |
| PERS Plan 3 | 4,276 | 5,601 | 14,499 | 19,959 | 44,335 |
| SERS Plan 2 | 8,229 | 5,880 | 13,445 | 13,566 | 41,120 |
| SERS Plan 3 | 7,735 | 8,330 | 19,067 | 14,823 | 49,955 |
| PSERS Plan 2 | 167 | 472 | 3,116 | 2,706 | 6,461 |
| TRS Plan 1 | 34,225 | 188 | 687 | 10 | 35,110 |
| TRS Plan 2 | 5,076 | 2,532 | 7,995 | 11,138 | 26,741 |
| TRS Plan 3 | 10,289 | 8,568 | 37,286 | 17,201 | 73,344 |
| LEOFF Plan 1 | 7,283 | - | 40 | - | 7,323 |
| LEOFF Plan 2 | 5,140 | 864 | 13,658 | 4,041 | 23,703 |
| WSPRS Plan 1 | 1,114 | 73 | 446 | - | 1,633 |
| WSPRS Plan 2 | - | 33 | 334 | 212 | 579 |
| JRS | 99 | - | - | - | 99 |
| JRF | 11 | - | - | - | 11 |

## Number of Participating Employers

| Plan | Component Units of the State of Washington | Counties/Municipalities | School Districts | Other Political Subdivisions | Total |
| :---: | :---: | :---: | :---: | :---: | :---: |
| PERS Plan 1 | 110 | 115 | 172 | 105 | 502 |
| PERS Plan 2 | 155 | 280 | - | 527 | 962 |
| PERS Plan 3 | 148 | 217 | - | 342 | 707 |
| SERS Plan 2 | - | - | 309 | - | 309 |
| SERS Plan 3 | - | - | 307 | - | 307 |
| PSERS Plan 2 | 6 | 66 | - | 1 | 73 |
| TRS Plan 1 | 26 | - | 162 | - | 188 |
| TRS Plan 2 | 26 | - | 306 | - | 332 |
| TRS Plan 3 | 40 | - | 312 | - | 352 |
| LEOFF Plan 1 | - | 18 | - | 5 | 23 |
| LEOFF Plan 2 | 9 | 203 | - | 166 | 378 |
| WSPRS Plan 1 | 1 | - | - | - | 1 |
| WSPRS Plan 2 | 1 | - | - | - | 1 |
| JRS | - | - | - | - | - |
| JRF | - | - | - | - | - |

Employers can participate in multiple systems and/or plans. The actual total number of participating employers as of June 30, 2017, is 1,345 . Of that number, 156 are component units of the state. For a list of covered employers, refer to the Statistical Section of this report.

## Notes to the Financial Statements (cont.)

## B. System and Plan Descriptions

## Public Employees' Retirement System (PERS)

Administration: PERS was established in 1947, and its retirement benefit provisions are contained in Chapters 41.34 and 41.40 RCW. PERS is a cost-sharing, multiple-employer retirement system composed of three separate pension plans for membership purposes. PERS Plan 1 and PERS Plan 2 are defined benefit plans, and PERS Plan 3 is a defined benefit plan with a defined contribution component.

PERS members include elected officials, state employees, employees of local governments and higher education employees not participating in higher education retirement programs (HERPs).

PERS is composed of and reported as three separate plans for accounting purposes: Plan 1, Plan $2 / 3$ and Plan 3. Plan 1 accounts for the defined benefits of Plan 1 members. Plan $2 / 3$ accounts for the defined benefits of Plan 2 members and the defined benefit portion of benefits for Plan 3 members. Plan 3 accounts for the defined contribution portion of benefits for Plan 3 members.

Although employees can be a member of only Plan 2 or Plan 3, the defined benefits of Plan 2 and Plan 3 are accounted for in the same pension trust fund. All assets of Plan $2 / 3$ may legally be used to pay the defined benefits of any of the Plan 2 or Plan 3 members or beneficiaries. Therefore, Plan $2 / 3$ is considered a single plan for accounting purposes.

## PERS Plan 1

As of June 30, 2017, 393 employers and 756 nonemployer contributing entities were participating in PERS Plan 1. The plan is closed to new entrants.

Plan Membership: As of June 30, 2017, PERS Plan 1 membership consisted of the following:

| PERS Plan 1 |  |
| :--- | ---: |
| Inactive Plan Members or Beneficiaries Currently Receiving Benefits | 48,268 |
| Inactive Plan Members Entitled to But Not Yet Receiving Benefits | 663 |
| Active Plan Members | 2,593 |
| Total Membership | $\underline{\mathbf{5 1 , 5 2 4}}$ |

Vesting: PERS Plan 1 members became vested after the completion of five years of eligible service.

Benefits Provided: PERS Plan 1 provides retirement, disability and death benefits. Retirement benefits are calculated as $2 \%$ times the member's Average Final Compensation (AFC) times the member's years of service. AFC is the average of the member's 24 consecutive highest-paid service credit months. Members are eligible for retirement from active status at any age with at least 30 years of service, at age 55 with at least 25 years of service or at age 60 with at least five years of service.

PERS Plan 1 retirement benefits are actuarially reduced if a survivor benefit is chosen. Members retiring from inactive status before the age of 65 may also receive actuarially reduced benefits. Other benefits include duty and nonduty disability payments, an optional Cost-ofLiving Adjustment (COLA), and a duty-related death benefit, if the Washington State Department of Labor \& Industries determines the member eligible.

Contributions: The PERS Plan 1 member contribution rate is established by statute at $6 \%$. The employer contribution rate is developed by the Office of the State Actuary (OSA) and includes an administrative expense component that is currently set at $0.18 \%$.

The PERS Plan 1 required contribution rates (expressed as a percentage of covered payroll) at the close of fiscal year 2017 were as follows:

| PERS Plan 1 |  |  |
| :--- | ---: | ---: |
| Actual Contribution Rates | Employer | Employee |
| State Agencies | $11.18 \%$ | $6.00 \%$ |
| Local Governmental Units | $11.18 \%$ | $6.00 \%$ |

## Investments

Investment Policy: The Washington State Investment Board (WSIB) has been authorized by statute as having investment management responsibility for the pension funds. The WSIB manages retirement fund assets to maximize return at a prudent level of risk.

Retirement funds are invested in the Commingled Trust Fund (CTF). The CTF is a diversified pool of investments

## Notes to the Financial Statements (cont.)

that invests in fixed income, public equity, private equity, real estate and tangible assets. Investment decisions are made within the framework of a Strategic Asset Allocation Policy and a series of WSIB-adopted investment policies for the various asset classes.

General information about the retirement funds' investments, valuation, classifications, concentrations and maturities can be found in "Note 1: Summary of Significant Accounting Policies and Plan Asset Matters."

Rate of Return': For the fiscal year ended June 30, 2017, the annual money-weighted rate of return on PERS Plan 1 pension investments, net of pension plan investment expense, was $13.84 \%$. This money-weighted rate of return expresses investment performance, net of pension plan investment expense, and reflects both the size and timing of cash flows.

Net Pension Liability of Participating Employers The components of the net pension liability of PERS Plan 1 as of June 30, 2017, were as follows:

PERS Plan 1
Dollars in Thousands

| Total Pension Liability | $\$$ | $12,241,998$ |
| :--- | ---: | ---: |
| Plan Fiduciary Net Position |  | $(7,496,920)$ |
| Participating Employers' Net Pension Liability | $\mathbf{\$}$ | $\mathbf{4 , 7 4 5 , 0 7 8}$ |
|  |  |  |
| Plan Fiduciary Net Pension as a Percentage of Total |  | $61.24 \%$ |
| Pension Liability |  |  |

Actuarial Assumptions ${ }^{2}$ : The total pension liability was determined by an actuarial valuation as of June 30, 2016, with the results rolled forward to June 30, 2017, using the following actuarial assumptions, applied to all prior periods included in the measurement:

| PERS Plan 1 |  |
| :---: | :---: |
| Inflation | 3.0\% total economic inflation, 3.75\% salary inflation |
| Salary Increases | In addition to the base $3.75 \%$ salary inflation assumption, salaries are also expected to grow by promotions and longevity |
| Investment | 7.50\% |
| Rate of Return |  |

Mortality rates were based on the RP-2000 report's
"Combined Healthy Table" and "Combined Disabled Table," which the Society of Actuaries published. OSA applied offsets to the base table and recognized future improvements in mortality by projecting the mortality rates using $100 \%$ Scale BB. Mortality rates are applied on a generational basis, meaning members are assumed to receive additional mortality improvements in each future year throughout their lifetimes.

The actuarial assumptions used in the June 30, 2016, valuation were based on the results of the 2007-2012 Experience Study Report and the 2015 Economic Experience Study. Additional assumptions for subsequent events and law changes are current as of the 2016 actuarial valuation report.

OSA selected a $7.50 \%$ long-term expected rate of return on pension plan investments using a buildingblock method. In selecting this assumption, OSA reviewed the historical experience data, considered the historical conditions that produced past annual investment returns, and considered Capital Market Assumptions (CMAs) and simulated expected investment returns the WSIB provided.

The CMAs contain three pieces of information for each class of assets the WSIB currently invests in:

- Expected annual return
- Standard deviation of the annual return
- Correlations between the annual returns of each asset class with every other asset class

The WSIB uses the CMAs and their target asset allocation to simulate future investment returns over various time horizons.

The expected future rates of return (expected returns, net of pension plan investment expense, including inflation) are developed by the WSIB for each major asset class.

Best estimates of arithmetic real rates of return for each major asset class included in the pension plan's target

[^0]50 DRS $\nabla$ Financial Section - Comprehensive Annual Financial Report

## Notes to the Financial Statements (cont.)

asset allocation as of June 30, 2017, are summarized in the following table:

| PERS Plan 1 |  |  |
| :--- | ---: | ---: |
| Asset Class | Larget Allocation | Lerm Expected <br> Real Rate of Return |
| Fixed Income | $20.00 \%$ | $1.70 \%$ |
| Tangible Assets | $5.00 \%$ | $4.90 \%$ |
| Real Estate | $15.00 \%$ | $5.80 \%$ |
| Global Equity | $37.00 \%$ | $6.30 \%$ |
| Private Equity | $23.00 \%$ | $9.30 \%$ |

The inflation component used to create the table above was $2.20 \%$ and represents the WSIB's most recent longterm estimate of broad economic inflation.

For additional information and background on OSA's development of the long-term rate of return assumption, please see the 2015 Report on Financial Condition and Economic Study located on the OSA website. The selection of this assumption and economic experience studies are further detailed in the Actuarial Certification Letter.

Discount Rate: The discount rate used to measure the total pension liability was $7.50 \%$. To determine the discount rate, an asset sufficiency test was completed to test whether the pension plan's fiduciary net position was sufficient to make all projected future benefit payments of current plan members. Consistent with current law, the completed asset sufficiency test included an assumed $7.70 \%$ long-term discount rate to determine funding liabilities for calculating future contribution rate requirements. Consistent with the long-term expected rate of return, a $7.50 \%$ future investment rate of return on invested assets was assumed for the test.

Contributions from plan members and employers were assumed to continue being made at contractually required rates (including PERS Plan 2/3, PSERS Plan 2 and SERS Plan $2 / 3$ employers, whose rates include a component for the PERS Plan 1 liability). Based on those assumptions, the pension plan's fiduciary net position was projected to be available to make all projected future benefit payments of current plan members. Therefore, the long-term expected rate of return of $7.50 \%$ on pension plan investments was applied to determine the total pension liability.

Sensitivity of the Net Pension Liability to Changes in the Discount Rate: The following table presents the net pension liability of the employers calculated using the discount rate of $7.50 \%$ as well as what the employers' net pension liability would be if it were calculated using a discount rate that is 1 percentage point lower ( $6.50 \%$ ) or 1 percentage point higher ( $8.50 \%$ ) than the current rate.

PERS Plan 1
Dollars in Thousands

|  | 1\% Decrease <br> $\mathbf{( 6 . 5 0 \% )}$ | Current Discount <br> Rate (7.50\%) | $\mathbf{1 \%}$ Increase <br> $\mathbf{( 8 . 5 0 \% )}$ |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: |
| Employers' Net | $\$ 5,780,412$ | $\$$ | $4,745,078$ | $\$ 3,848,257$ |  |
| Pension Liability |  |  |  |  |  |

PERS Plan 2/3
As of June 30, 2017, 808 employers were participating in PERS Plan $2 / 3$.

Plan Membership: As of June 30, 2017, PERS Plan 2/3 membership consisted of the following:

| PERS Plan 2/3 |  |  |
| :--- | ---: | ---: |
|  | Plan 2 | Plan 3 |
| Inactive Plan Members or Beneficiaries Currently <br> Receiving Benefits | 46,675 | 4,276 |
| Inactive Plan Members Entitled to But Not Yet Receiving <br> Benefits | 27,835 | 5,601 |
| Active Plan Members | $\underline{122,390}$ | 34,458 |
| Total Membership | $\underline{\mathbf{1 9 6 , 9 0 0}}$ | $\mathbf{4 4 , 3 \mathbf { 4 5 }}$ |

Vesting: PERS Plan 2 members are vested after completing five years of eligible service. Plan 3 members are vested in the defined benefit portion of their plan after 10 years of service or after five years of service if 12 months of that service was earned after age 44.

Benefits Provided: PERS Plan $2 / 3$ provides retirement, disability and death benefits. Retirement benefits for Plan 2 are calculated as $2 \%$ times the member's Average Final Compensation (AFC) times the member's years of service. Retirement defined benefits for Plan 3 are calculated using $1 \%$ times the member's AFC times the member's years of service. AFC is the monthly average of the member's 60 consecutive highest-paid service credit months.

## Notes to the Financial Statements (cont.)

Members are eligible for retirement with a full benefit at age 65 with at least five years of service credit. Retirement before age 65 is considered an early retirement. PERS Plan $2 / 3$ members who have at least 20 years of service credit and are 55 years of age or older are eligible for early retirement with a reduced benefit. The benefit is reduced by a factor that varies according to age for each year before age 65.

PERS Plan 2/3 retirement benefits are actuarially reduced if a survivor benefit is chosen.

Other PERS Plan $2 / 3$ benefits include duty and nonduty disability payments; a Cost-of-Living Adjustment (COLA) based on the Consumer Price Index, capped at 3\% annually; and a duty-related death benefit, if the Washington State Department of Labor \& Industries determines the member eligible.

Contributions: The PERS Plan $2 / 3$ employer and employee contribution rates are developed by the Office of the State Actuary (OSA) to fully fund Plan 2 and the defined benefit portion of Plan 3. The Plan $2 / 3$ employer rates include an administrative expense that is currently set at $0.18 \%$ and a component to address the PERS Plan 1 Unfunded Actuarial Accrued Liability .

The PERS Plan $2 / 3$ required contribution rates (expressed as a percentage of covered payroll) at the close of fiscal year 2017 were as follows:

| PERS Plan 2/3 |  |  |  |
| :--- | ---: | ---: | ---: |
|  | Employer | Employee <br> Plan 2 | Employee <br> Plan 3 |
| Actual Contribution Rates | $11.18 \%$ | $6.12 \%$ | $0 \%$ |
| State Agencies | $11.18 \%$ | $6.12 \%$ | $0 \%$ |
| Local Governmental Units |  |  |  |

## Investments

Investment Policy: The Washington State Investment Board (WSIB) has been authorized by statute as having investment management responsibility for the pension funds. The WSIB manages retirement fund assets to maximize return at a prudent level of risk.

Retirement funds are invested in the Commingled Trust Fund (CTF). The CTF is a diversified pool of investments that invests in fixed income, public equity, private equity, real estate and tangible assets. Investment decisions are made within the framework of a Strategic Asset Allocation Policy and a series of WSIB-adopted investment policies for the various asset classes.

General information about the retirement funds' investments, valuation, classifications, concentrations and maturities can be found in "Note 1: Summary of Significant Accounting Policies and Plan Asset Matters."

Rate of Return': For the fiscal year ended June 30, 2017, the annual money-weighted rate of return on PERS Plan $2 / 3$ pension investments, net of pension plan investment expense, was $14.11 \%$. This money-weighted rate of return expresses investment performance, net of pension plan investment expense, and reflects both the size and timing of cash flows.

Net Pension Liability of Participating Employers The components of the net pension liability of PERS Plan $2 / 3$ as of June 30,2017, were as follows:

| PERS Plan 2/3 |  |  |
| :--- | ---: | ---: |
| Dollars in Thousands |  |  |
| Total Pension Liability | $\$$ | $38,475,325$ |
| Plan Fiduciary Net Position |  | $(35,000,803)$ |
| Participating Employers' Net Pension Liability | $\mathbf{\$}$ | $\mathbf{3 , 4 7 4 , 5 2 2}$ |
| Plan Fiduciary Net Position as a Percentage of Total |  | $90.97 \%$ |
| Pension Liability |  |  | Pension Liability

Actuarial Assumptions²: The total pension liability was determined by an actuarial valuation as of June 30, 2016, with the results rolled forward to June 30, 2017, using the following actuarial assumptions, applied to all prior periods included in the measurement:

| PERS Plan $\mathbf{2 / 3}$ |  |
| :--- | :--- |
| Inflation | 3.0\% total economic inflation, 3.75\% salary inflation |
| Salary | In addition to the base 3.75\% salary inflation assumption, |
| Increases | salaries are also expected to grow by promotions and longevity |
| Investment | $7.50 \%$ |
| Rate of Return |  |

[^1]
## Notes to the Financial Statements (cont.)

Mortality rates were based on the RP-2000 report's "Combined Healthy Table" and "Combined Disabled Table," which the Society of Actuaries published. OSA applied offsets to the base table and recognized future improvements in mortality by projecting the mortality rates using $100 \%$ Scale BB. Mortality rates are applied on a generational basis, meaning members are assumed to receive additional mortality improvements in each future year throughout their lifetimes.

The actuarial assumptions used in the June 30, 2016, valuation were based on the results of the 2007-2012 Experience Study Report and the 2015 Economic Experience Study. Additional assumptions for subsequent events and law changes are current as of the 2016 actuarial valuation report.

OSA selected a $7.50 \%$ long-term expected rate of return on pension plan investments using a buildingblock method. In selecting this assumption, OSA reviewed the historical experience data, considered the historical conditions that produced past annual investment returns, and considered Capital Market Assumptions (CMAs) and simulated expected investment returns the WSIB provided.

The CMAs contain three pieces of information for each class of assets the WSIB currently invests in:

- Expected annual return
- Standard deviation of the annual return
- Correlations between the annual returns of each asset class with every other asset class

The WSIB uses the CMAs and their target asset allocation to simulate future investment returns over various time horizons.

The expected future rates of return (expected returns, net of pension plan investment expense, including inflation) are developed by the WSIB for each major asset class.

Best estimates of arithmetic real rates of return for each major asset class included in the pension plan's target asset allocation as of June 30, 2017, are summarized in the following table:

PERS Plan 2/3

| Asset Class | Target Allocation | Long-Term Expected <br> Real Rate of Return |
| :--- | ---: | ---: |
| Fixed Income | $20.00 \%$ | $1.70 \%$ |
| Tangible Assets | $5.00 \%$ | $4.90 \%$ |
| Real Estate | $15.00 \%$ | $5.80 \%$ |
| Global Equity | $37.00 \%$ | $6.30 \%$ |
| Private Equity | $23.00 \%$ | $9.30 \%$ |

The inflation component used to create the table above was $2.20 \%$ and represents the WSIB's most recent longterm estimate of broad economic inflation.

For additional information and background on OSA's development of the long-term rate of return assumption, please see the 2015 Report on Financial Condition and Economic Study located on the OSA website. The selection of this assumption and economic experience studies are further detailed in the Actuarial Certification Letter.

Discount Rate: The discount rate used to measure the total pension liability was $7.50 \%$. To determine the discount rate, an asset sufficiency test was completed to test whether the pension plan's fiduciary net position was sufficient to make all projected future benefit payments of current plan members. Consistent with current law, the completed asset sufficiency test included an assumed $7.70 \%$ long-term discount rate to determine funding liabilities for calculating future contribution rate requirements. Consistent with the long-term expected rate of return, a $7.50 \%$ future investment rate of return on invested assets was assumed for the test.

Contributions from plan members and employers were assumed to continue being made at contractually required rates. Based on those assumptions, the pension plan's fiduciary net position was projected to be available to make all projected future benefit payments of current plan members. Therefore, the longterm expected rate of return of $7.50 \%$ on pension plan investments was applied to determine the total pension liability.

## Sensitivity of the Net Pension Liability to Changes in

 the Discount Rate: The following table presents the net pension liability of the employers calculated using the
## Notes to the Financial Statements (cont.)

discount rate of $7.50 \%$ as well as what the employers' net pension liability would be if it were calculated using a discount rate that is 1 percentage point lower ( $6.50 \%$ ) or 1 percentage point higher ( $8.50 \%$ ) than the current rate.

```
PERS Plan 2/3
Dollars in Thousands
```

|  | 1\% Decrease <br> $\mathbf{( 6 . 5 0 \% )}$ | Current Discount <br> Rate (7.50\%) | $\mathbf{1 \%}$ Increase <br> $\mathbf{( 8 . 5 0 \% )}$ |  |
| :--- | ---: | ---: | ---: | ---: |
| Employers' Net | $\$$ | $9,360,726$ | $\$$ | $3,474,522$ |$\$(1,348,349)$

## PERS Plan 3

As of June 30, 2017, 560 employers were participating in PERS Plan 3.

Plan Membership: As of June 30, 2017, PERS Plan 3 membership consisted of the following:

| PERS Plan 3 |  |
| :--- | ---: |
| Inactive Plan Members or Beneficiaries Currently Receiving Benefits | 4,276 |
| Inactive Plan Members Entitled to But Not Yet Receiving Benefits | 5,601 |
| Active Plan Members | $\underline{34,458}$ |
| Total Membership | $\underline{\underline{44,335}}$ |

Vesting: PERS Plan 3 members are immediately vested in the defined contribution portion of their plan.

Benefits Provided: PERS Plan 3 defined contribution benefits are totally dependent on employee contributions and investment earnings on those contributions.

Contributions: PERS Plan 3 members choose their contribution rate when joining membership and can change rates only when changing employers. As established by Chapter 41.34 RCW, Plan 3 defined contribution rates are set at a minimum of $5 \%$ and a maximum of $15 \%$; members have six rate options. Employers do not contribute to the defined contribution benefits.

## School Employees' Retirement System (SERS)

Administration: The Legislature created SERS in 1998, and the plan became effective in 2000 . SERS retirement benefit provisions are established in Chapters 41.34 and 41.35 RCW. SERS members include classified employees of school districts and educational service
districts. SERS is a cost-sharing, multiple-employer retirement system composed of two separate plans for membership purposes. SERS Plan 2 is a defined benefit plan, and SERS Plan 3 is a defined benefit plan with a defined contribution component.

Although employees can be a member of only Plan 2 or Plan 3, the defined benefit portions of Plan 2 and Plan 3 are accounted for in the same pension trust fund. All assets of Plan $2 / 3$ defined benefit plan may legally be used to pay the defined benefits of any of the Plan 2 or Plan 3 members or beneficiaries. Therefore, Plan $2 / 3$ is considered to be a single plan for accounting purposes. Plan 3 accounts for the defined contribution portion of benefits for Plan 3 members.

## SERS Plan $2 / 3$

As of June 30, 2017, 309 employers were participating in SERS Plan 2/3.

Plan Membership: As of June 30, 2017, SERS Plan 2/3 membership consisted of the following:

| SERS Plan 2/3 |  |  |
| :--- | ---: | ---: |
|  | Plan 2 | Plan 3 |
| Inactive Plan Members or Beneficiaries Currently <br> Receiving Benefits | 8,229 | 7,735 |
| Inactive Plan Members Entitled to But Not Yet Receiving <br> Benefits | 5,880 | 8,330 |
| Active Plan Members | 27,011 | 33,890 |
| Total Membership | $\underline{\mathbf{4 1 , 1 2 0}}$ | $\mathbf{4 9 , 9 5 5}$ |

Vesting: SERS Plan 2 members are vested after completing five years of eligible service. SERS Plan 3 members are vested in the defined benefit portion of their plan after 10 years of service or after five years of service if 12 months of that service was earned after age 44.

Benefits Provided: SERS Plan $2 / 3$ provides retirement, disability and death benefits. Retirement benefits for Plan 2 are calculated as $2 \%$ times the member's Average Final Compensation (AFC) times the member's years of service for Plan 2. Retirement benefits for Plan 3 are calculated using $1 \%$ times the member's AFC times the member's years of service. AFC is the monthly average of the member's 60 consecutive highest-paid service credit months.

## Notes to the Financial Statements (cont.)

Members are eligible for retirement with a full benefit at age 65 with at least five years of service credit. Retirement before age 65 is considered an early retirement. SERS members who have at least 20 years of service credit and are 55 years of age or older are eligible for early retirement with a reduced benefit. The benefit is reduced by a factor that varies according to age for each year before age 65 .

SERS Plan $2 / 3$ retirement benefits are actuarially reduced if a survivor benefit is chosen.

Other SERS Plan $2 / 3$ benefits include duty and nonduty disability payments; a Cost-of-Living Adjustment (COLA) based on the Consumer Price Index, capped at 3\% annually; and a duty-related death benefit, if the Washington State Department of Labor \& Industries determines the member eligible.

Contributions: The SERS Plan $2 / 3$ employer and employee contribution rates are developed by OSA to fully fund the defined benefits of Plan $2 / 3$. The employer rate includes an administrative expense currently set at $0.18 \%$ and a component to address the PERS Plan 1 Unfunded Actuarial Accrued Liability.

The SERS Plan 2/3 required defined benefit contribution rates (expressed as a percentage of covered payroll) at the close of fiscal year 2017 were as follows:

| SERS Plan 2/3 |  |  |  |
| :--- | ---: | ---: | ---: |
| Actual Contribution Rates | Employer | Employee <br> Plan 2 | Employee <br> Plan 3 |
| State Agencies | $11.58 \%$ | $5.63 \%$ | $0 \%$ |
| Local Governmental Units | $11.58 \%$ | $5.63 \%$ | $0 \%$ |

## Investments

Investment Policy: The Washington State Investment Board (WSIB) has been authorized by statute as having investment management responsibility for the pension funds. The WSIB manages retirement fund assets to maximize return at a prudent level of risk.

Retirement funds are invested in the Commingled Trust

Fund (CTF). The CTF is a diversified pool of investments that invests in fixed income, public equity, private equity, real estate and tangible assets. Investment decisions are made within the framework of a Strategic Asset Allocation Policy and a series of WSIB-adopted investment policies for the various asset classes.

General information about the retirement funds' investments, valuation, classifications, concentrations and maturities can be found in "Note 1: Summary of Significant Accounting Policies and Plan Asset Matters."

Rate of Return': For the fiscal year ended June 30, 2017, the annual money-weighted rate of return on SERS Plan $2 / 3$ pension investments, net of pension plan investment expense, was $14.13 \%$. This money-weighted rate of return expresses investment performance, net of pension plan investment expense, and reflects both the size and timing of cash flows.

Net Pension Liability of Participating Employers The components of the net pension liability of SERS $2 / 3$ as of June 30, 2017, were as follows:

```
SERS Plan 2/3
Dollars in Thousands
```

| Total Pension Liability | \$ | 5,357,035 |
| :---: | :---: | :---: |
| Plan Fiduciary Net Position |  | $(4,863,560)$ |
| Participating Employers' Net Pension Liability | \$ | 493,475 |
| Plan Fiduciary Net Position as a Percentage of Total |  | 90.8\% | Pension Liability

Actuarial Assumptions ${ }^{2}$ : The total pension liability was determined by an actuarial valuation as of June 30, 2016, with the results rolled forward to June 30, 2017, using the following actuarial assumptions, applied to all prior periods included in the measurement:

| SERS Plan $\mathbf{2 / 3}$ |  |
| :--- | :--- |
| Inflation | $3.0 \%$ total economic inflation, $3.75 \%$ salary inflation |
| Salary | In addition to the base $3.75 \%$ salary inflation assumption, |
| Increases | salaries are also expected to grow by promotions and longevity |
| Investment | $7.50 \%$ |
| Rate of Return |  |

[^2]
## Notes to the Financial Statements (cont.)

Mortality rates were based on the RP-2000 report's "Combined Healthy Table" and "Combined Disabled Table," which the Society of Actuaries publishes. OSA applied offsets to the base table and recognized future improvements in mortality by projecting the mortality rates using $100 \%$ Scale BB. Mortality rates are applied on a generational basis, meaning members are assumed to receive additional mortality improvements in each future year throughout their lifetimes.

The actuarial assumptions used in the June 30, 2016, valuation were based on the results of the 2007-2012 Experience Study Report and the 2015 Economic Experience Study. Additional assumptions for subsequent events and law changes are current as of the 2016 actuarial valuation report.

OSA selected a $7.50 \%$ long-term expected rate of return on pension plan investments using a buildingblock method. In selecting this assumption, OSA reviewed the historical experience data, considered the historical conditions that produced past annual investment returns, and considered Capital Market Assumptions (CMAs) and simulated expected investment returns the WSIB provided.

The CMAs contain three pieces of information for each class of assets the WSIB currently invests in:

- Expected annual return
- Standard deviation of the annual return
- Correlations between the annual returns of each asset class with every other asset class

The WSIB uses the CMAs and their target asset allocation to simulate future investment returns over various time horizons.

The expected future rates of return (expected returns, net of pension plan investment expense, including inflation) are developed by the WSIB for each major asset class.

Best estimates of arithmetic real rates of return for each major asset class included in the pension plan's target asset allocation as of June 30, 2017, are summarized in the following table:

SERS Plan 2/3

| Asset Class | Target Allocation | Long-Term Expected <br> Real Rate of Return |
| :--- | ---: | ---: |
| Fixed Income | $20.00 \%$ | $1.70 \%$ |
| Tangible Assets | $5.00 \%$ | $4.90 \%$ |
| Real Estate | $15.00 \%$ | $5.80 \%$ |
| Global Equity | $37.00 \%$ | $6.30 \%$ |
| Private Equity | $23.00 \%$ | $9.30 \%$ |

The inflation component used to create the table above was $2.20 \%$ and represents the WSIB's most recent longterm estimate of broad economic inflation.

For additional information and background on OSA's development of the long-term rate of return assumption, please see the 2015 Report on Financial Condition and Economic Study located on the OSA website. The selection of this assumption and economic experience studies are further detailed in the Actuarial Certification Letter.

Discount Rate: The discount rate used to measure the total pension liability was $7.50 \%$. To determine the discount rate, an asset sufficiency test was completed to test whether the pension plan's fiduciary net position was sufficient to make all projected future benefit payments of current plan members. Consistent with current law, the completed asset sufficiency test included an assumed $7.70 \%$ long-term discount rate to determine funding liabilities for calculating future contribution rate requirements. Consistent with the long-term expected rate of return, a $7.50 \%$ future investment rate of return on invested assets was assumed for the test.

Contributions from plan members and employers were assumed to continue being made at contractually required rates. Based on those assumptions, the pension plan's fiduciary net position was projected to be available to make all projected future benefit payments of current plan members. Therefore, the longterm expected rate of return of $7.50 \%$ on pension plan investments was applied to determine the total pension liability.

## Sensitivity of the Net Pension Liability to Changes in

 the Discount Rate: The following table presents the net pension liability of the employers calculated using the
## Notes to the Financial Statements (cont.)

discount rate of $7.50 \%$ as well as what the employers' net pension liability would be if it were calculated using a discount rate that is 1 percentage point lower ( $6.50 \%$ ) or 1 percentage point higher ( $8.50 \%$ ) than the current rate.

```
SERS Plan 2/3
Dollars in Thousands
\begin{tabular}{lrrrrr} 
& \begin{tabular}{r} 
1\% Decrease \\
\(\mathbf{( 6 . 5 0 \% )}\)
\end{tabular} & \begin{tabular}{r} 
Current Discount \\
Rate \(\mathbf{( 7 . 5 0 \% )}\)
\end{tabular} & \begin{tabular}{r}
\(\mathbf{1 \%}\) Increase \\
\(\mathbf{( 8 . 5 0 \% )}\)
\end{tabular} \\
\hline Employers' Net & \(\$\) & \(1,278,921\) & \(\$\) & 493,475 & \(\$\) \\
\hline Pension Liability & & & & & \\
\hline
\end{tabular}
```


## SERS Plan 3

As of June 30, 2017, 307 employers were participating in SERS Plan 3.

Plan Membership: As of June 30, 2017, SERS Plan 3 membership consisted of the following:

| SERS Plan 3 |  |
| :--- | ---: |
| Inactive Plan Members or Beneficiaries Currently Receiving Benefits | 7,735 |
| Inactive Plan Members Entitled to But Not Yet Receiving Benefits | 8,330 |
| Active Plan Members | $\underline{33,890}$ |
| Total Membership | $\underline{\mathbf{4 9 , 9 5 5}}$ |

Vesting: SERS Plan 3 members are immediately vested in the defined contribution portion of their plan.

Benefits Provided: SERS Plan 3 defined contributions benefits are totally dependent on employee contributions and the investment earnings on those contributions.

Contributions: SERS Plan 3 members choose their contribution rate when joining membership and can change rates only when changing employers. As established by Chapter 41.34 RCW, Plan 3 defined contribution rates are set at a minimum of $5 \%$ and a maximum of $15 \%$; members have six rate options. Employers do not contribute to the defined contribution benefits.

## Public Safety Employees' Retirement System (PSERS)

Administration: The Legislature created PSERS in 2004, and the plan became effective July 1, 2006. PSERS retirement benefit provisions are established in Chapter 41.37 RCW. PSERS is a cost-sharing, multiple-employer
retirement system composed of a single defined benefit plan, PSERS Plan 2.

PSERS membership includes:

- PERS Plans 2 and 3 employees hired before July 1, 2006, who met the PSERS eligibility criteria and elected membership during the period of July 1, 2006, through September 30, 2006
- Employees hired on or after July 1, 2006, who meet PSERS eligibility criteria
- Covered employers of PSERS include:
» Certain Washington state agencies (for example, Department of Corrections, Department of Natural Resources, Gambling Commission, Liquor and Cannabis Board, Parks and Recreation Commission, and Washington State Patrol)
» Washington state counties
" Washington state cities (except Seattle, Spokane and Tacoma)
» Correctional entities PSERS employers form under the Interlocal Cooperation Act

To be eligible for PSERS, an employee must work full time and meet at least one of the following criteria:

- Have completed a certified criminal-justice training course with authority to arrest, conduct criminal investigations, enforce the criminal laws of Washington and carry a firearm as part of the job
- Have primary responsibility to ensure the custody and security of incarcerated or probationary individuals
- Function as a limited authority Washington peace officer, as defined in RCW 10.93.020
- Have primary responsibility to supervise eligible members who meet the above criteria

PSERS is composed of one plan for accounting purposes: Plan 2. Plan 2 accounts for the defined benefits of PSERS members.

## Notes to the Financial Statements (cont.)

## PSERS Plan 2

As of June 30, 2017, 68 employers were participating in PSERS Plan 2.

Plan Membership: As of June 30, 2017, PSERS Plan 2 membership consisted of the following:

| PSERS Plan 2 |  |
| :--- | ---: |
| Inactive Plan Members or Beneficiaries Currently Receiving Benefits | 167 |
| Inactive Plan Members Entitled to But Not Yet Receiving Benefits | 472 |
| Active Plan Members | 5,822 |
| Total Membership | $\mathbf{6 , 4 6 1}$ |

Vesting: PSERS members are vested after completing five years of eligible service.

Benefits Provided: PSERS Plan 2 provides retirement, disability and death benefits. Retirement benefits are calculated using $2 \%$ times the member's Average Final Compensation (AFC) times the member's years of service. AFC is based on the member's 60 consecutive highest-paid months of service credit.

Members are eligible for retirement at age 65 with five years of service, at age 60 with at least 10 years of PSERS service credit or at age 53 with 20 years of service. Benefits are actuarially reduced for each year the member's age is less than 60 (with 10 or more service credit years in PSERS) or less than 65 (with fewer than 10 service credit years).

There is no cap on years of service credit. Retirement before age 60 is considered an early retirement, and PSERS members who retire before turning 60 receive reduced benefits. If retirement is at age 53 or older with at least 20 years of service, a $3 \%$ per year reduction for each year between age at retirement and age 60 applies. PSERS retirement benefits are actuarially reduced if a survivor benefit is chosen.

Other PSERS Plan 2 benefits include duty and nonduty disability payments, a Cost-of-Living Adjustment (COLA), and duty-related death benefit, if the Washington State Department of Labor \& Industries determines the member eligible.

Contributions: The PSERS Plan 2 employer and employee contribution rates are developed by the Office of the State Actuary (OSA) to fully fund Plan 2. The employer rate includes an administrative expense that is currently set at $0.18 \%$ and a component to address the PERS Plan 1 Unfunded Actuarial Accrued Liability .

The PSERS Plan 2 required contribution rates (expressed as a percentage of covered payroll) at the close of fiscal year 2017 were as follows:

| PSERS Plan 2 |  |  |
| :--- | ---: | ---: |
| Actual Contribution Rates | Employer | Employee |
| State Agencies | $11.54 \%$ | $6.59 \%$ |
| Local Governmental Units | $11.54 \%$ | $6.59 \%$ |

## Investments

Investment Policy: The Washington State Investment Board (WSIB) has been authorized by statute as having investment management responsibility for the pension funds. The WSIB manages retirement fund assets to maximize return at a prudent level of risk.

Retirement funds are invested in the Commingled Trust Fund (CTF). The CTF is a diversified pool of investments that invests in fixed income, public equity, private equity, real estate and tangible assets. Investment decisions are made within the framework of a Strategic Asset Allocation Policy and a series of WSIB-adopted investment policies for the various asset classes.

General information about the retirement funds' investments, valuation, classifications, concentrations and maturities can be found in "Note 1: Summary of Significant Accounting Policies and Plan Asset Matters."

Rate of Return': For the fiscal year ended June 30, 2017, the annual money-weighted rate of return on PSERS Plan 2 pension investments, net of pension plan investment expense, was $14.14 \%$. This money-weighted rate of return expresses investment performance, net of pension plan investment expense, and reflects both the size and timing of cash flows.

[^3]
## Notes to the Financial Statements (cont.)

Net Pension Liability of Participating Employers
The components of the net pension liability of PSERS Plan 2 as of June 30, 2017, were as follows:

| PSERS Plan 2 |  |  |
| :--- | ---: | ---: |
| Dollars in Thousands |  |  |
| Total Pension Liability | $\$$ | 523,270 |
| Plan Fiduciary Net Position | $(503,677)$ |  |
| Participating Employers' Net Pension Liability | $\mathbf{\$}$ | $\mathbf{1 9 , 5 9 3}$ |
| Plan Fiduciary Net Position as a Percentage of Total |  | $96.26 \%$ |
| Pension Liability |  |  |

Actuarial Assumptions ${ }^{1}$ : The total pension liability was determined by an actuarial valuation as of June 30, 2016, with the results rolled forward to June 30, 2017, using the following actuarial assumptions, applied to all prior periods included in the measurement:

## PSERS Plan 2

| Inflation | $3.0 \%$ total economic inflation, 3.75\% salary inflation |
| :--- | :--- |
| Salary | In addition to the base 3.75\% salary inflation assumption, |
| Increases | salaries are also expected to grow by promotions and longevity |
| Investment <br> Rate of Return | $7.50 \%$ |
|  |  |

Mortality rates were based on the RP-2000 report's "Combined Healthy Table" and "Combined Disabled Table," which the Society of Actuaries publishes. OSA applied offsets to the base table and recognized future improvements in mortality by projecting the mortality rates using $100 \%$ Scale BB. Mortality rates are applied on a generational basis, meaning members are assumed to receive additional mortality improvements in each future year throughout their lifetimes.

The actuarial assumptions used in the June 30, 2016, valuation were based on the results of the 2007-2012 Experience Study Report and the 2015 Economic Experience Study. Additional assumptions for subsequent events and law changes are current as of the 2016 actuarial valuation report.

OSA selected a $7.50 \%$ long-term expected rate of return on pension plan investments using a buildingblock method. In selecting this assumption, OSA reviewed the historical experience data, considered
the historical conditions that produced past annual investment returns, and considered Capital Market Assumptions (CMAs) and simulated expected investment returns the WSIB provided.

The CMAs contain three pieces of information for each class of assets the WSIB currently invests in:

- Expected annual return
- Standard deviation of the annual return
- Correlations between the annual returns of each asset class with every other asset class

The WSIB uses the CMAs and their target asset allocation to simulate future investment returns over various time horizons.

The expected future rates of return (expected returns, net of pension plan investment expense, including inflation) are developed by the WSIB for each major asset class.

Best estimates of arithmetic real rates of return for each major asset class included in the pension plan's target asset allocation as of June 30, 2017, are summarized in the following table:

## PSERS Plan 2

| Asset Class | Target Allocation | Long-Term Expected <br> Real Rate of Return |
| :--- | ---: | ---: |
| Fixed Income | $20.00 \%$ | $1.70 \%$ |
| Tangible Assets | $5.00 \%$ | $4.90 \%$ |
| Real Estate | $15.00 \%$ | $5.80 \%$ |
| Global Equity | $37.00 \%$ | $6.30 \%$ |
| Private Equity | $23.00 \%$ | $9.30 \%$ |

The inflation component used to create the table above was $2.20 \%$ and represents the WSIB's most recent long-term estimate of broad economic inflation.

For additional information and background on OSA's development of the long-term rate of return assumption, please see the 2015 Report on Financial Condition and Economic Study located on the OSA website. The selection of this assumption and economic experience

[^4]
## Notes to the Financial Statements (cont.)

studies are further detailed in the Actuarial Certification Letter.

Discount Rate: The discount rate used to measure the total pension liability was $7.50 \%$. To determine the discount rate, an asset sufficiency test was completed to test whether the pension plan's fiduciary net position was sufficient to make all projected future benefit payments of current plan members. Consistent with current law, the completed asset sufficiency test included an assumed $7.70 \%$ long-term discount rate to determine funding liabilities for calculating future contribution rate requirements. Consistent with the longterm expected rate of return, a $7.50 \%$ future investment rate of return on invested assets was assumed for the test.

Contributions from plan members and employers were assumed to continue being made at contractually required rates. Based on those assumptions, the pension plan's fiduciary net position was projected to be available to make all projected future benefit payments of current plan members. Therefore, the longterm expected rate of return of $7.50 \%$ on pension plan investments was applied to determine the total pension liability.

## Sensitivity of the Net Pension Liability to Changes in

 the Discount Rate: The following table presents the net pension liability of the employers calculated using the discount rate of $7.50 \%$ as well as what the employers' net pension liability would be if it were calculated using a discount rate that is 1 percentage point lower $(6.50 \%$ ) or 1 percentage point higher ( $8.50 \%$ ) than the current rate.PSERS Plan 2
Dollars in Thousands

|  | 1\% Decrease <br> $\mathbf{( 6 . 5 0 \% )}$ | Current Discount <br> Rate $\mathbf{( 7 . 5 0 \% )}$ | $\mathbf{1 \%}$ Increase <br> $\mathbf{( 8 . 5 0 \% )}$ |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: |
| Employers' Net | $\$$ | 131,559 | $\$$ | 19,593 | $\$$ |
| Pension Liability |  |  |  | $(68,195)$ |  |

## Teachers' Retirement System (TRS)

Administration: TRS was established in 1938, and its retirement benefit provisions are contained in Chapters 41.32 and 41.34 RCW. TRS eligibility for membership requires service as a certificated public school
employee working in an instructional, administrative or supervisory capacity. TRS is a cost-sharing, multipleemployer retirement system composed of three separate plans for membership purposes: Plans 1 and 2 are defined benefit plans, and Plan 3 is a defined benefit plan with a defined contribution component.

TRS is composed of three separate plans for accounting purposes: Plan 1, Plan 2/3 and Plan 3. Plan 1 accounts for the defined benefits of Plan 1 members. Plan $2 / 3$ accounts for the defined benefits of Plan 2 members and the defined benefit portion of benefits for Plan 3 members. Plan 3 accounts for the defined contribution portion of benefits for Plan 3 members.

Although members can be a member of only Plan 2 or Plan 3, the defined benefit portions of Plan 2 and Plan 3 are accounted for in the same pension trust fund. All assets of Plan 2/3 defined benefit plan may legally be used to pay the defined benefits of any of the Plan 2 or Plan 3 members or beneficiaries, as the terms of the plans define. Therefore, Plan $2 / 3$ is considered a single plan for accounting purposes.

## TRS Plan 1

As of June 30, 2017, 163 employers and 137 nonemployer contributing entities were participating in TRS Plan 1. The plan is closed to new entrants.

Plan Membership: As of June 30, 2017, TRS Plan 1 membership consisted of the following:

## TRS Plan 1

| Inactive Plan Members or Beneficiaries Currently Receiving Benefits | 34,225 |
| :--- | ---: |
| Inactive Plan Members Entitled to But Not Yet Receiving Benefits | 188 |
| Active Plan Members | 697 |
| Total Membership | $\mathbf{3 5 , 1 1 0}$ |

Vesting: TRS Plan 1 members became vested after the completion of five years of eligible service.

Benefits Provided: TRS Plan 1 provides retirement, disability and death benefits. Retirement benefits are calculated using $2 \%$ of the member's Average Final Compensation (AFC) times the member's years of service - up to a maximum of $60 \%$. AFC is the average of the member's 24 consecutive highest-paid service credit months.

## Notes to the Financial Statements (cont.)

Members are eligible for retirement at any age after 30 years of service, at age 60 with five years of service or at age 55 with 25 years of service. Other benefits include temporary and permanent disability payments, an optional Cost-of-Living Adjustment (COLA), and a one-time, duty-related death benefit, if the Washington State Department of Labor \& Industries finds the member eligible.

Contributions: The TRS Plan 1 member contribution rate is set by statute at 6\%. The employer contribution rate is developed by the Office of the State Actuary (OSA) and includes an administrative expense component currently set at $0.18 \%$.

The TRS Plan 1 required contribution rates (expressed as a percentage of covered payroll) at the close of fiscal year 2017 were as follows:

## TRS Plan 1

| Actual Contribution Rates | Employer | Employee |
| :--- | ---: | ---: |
| State Agencies | $13.13 \%$ | $6.00 \%$ |
| Local Governmental Units | $13.13 \%$ | $6.00 \%$ |

## Investments

Investment Policy: The Washington State Investment Board (WSIB) has been authorized by statute as having investment management responsibility for the pension funds. The WSIB manages retirement fund assets to maximize return at a prudent level of risk.

Retirement funds are invested in the Commingled Trust Fund (CTF). The CTF is a diversified pool of investments that invests in fixed income, public equity, private equity, real estate and tangible assets. Investment decisions are made within the framework of a Strategic Asset Allocation Policy and a series of WSIB-adopted investment policies for the various asset classes.

General information about the retirement funds' investments, valuation, classifications, concentrations and maturities can be found in "Note 1: Summary of Significant Accounting Policies and Plan Asset Matters."

Rate of Return': For the fiscal year ended June 30, 2017, the annual money-weighted rate of return on TRS Plan 1 pension investments, net of pension plan investment expense, was $14.45 \%$. This money-weighted rate of return expresses investment performance, net of pension plan investment expense, and reflects both the size and timing of cash flows.

Net Pension Liability of Participating Employers The components of the net pension liability of TRS Plan 1 as of June 30, 2017, were as follows:


Actuarial Assumptions²: The total pension liability was determined by an actuarial valuation as of June 30, 2016, with the results rolled forward to June 30, 2017, using the following actuarial assumptions, applied to all prior periods included in the measurement:

| TRS Plan 1 |  |
| :--- | :--- |
| Inflation | 3.0\% total economic inflation, 3.75\% salary inflation |
| Salary | In addition to the base 3.75\% salary inflation assumption, |
| Increases | salaries are also expected to grow by promotions and longevity |
| Investment | $7.50 \%$ |
| Rate of Return |  |

Mortality rates were based on the RP-2000 report's "Combined Healthy Table" and "Combined Disabled Table," which the Society of Actuaries publishes. OSA applied offsets to the base table and recognized future improvements in mortality by projecting the mortality rates using 100\% Scale BB. Mortality rates are applied on a generational basis, meaning members are assumed to receive additional mortality improvements in each future year throughout their lifetimes.

The actuarial assumptions used in the June 30, 2016, valuation were based on the results of the

[^5]
## Notes to the Financial Statements (cont.)

2007-2012 Experience Study Report and the 2015 Economic Experience Study. Additional assumptions for subsequent events and law changes are current as of the 2016 actuarial valuation report.

OSA selected a $7.50 \%$ long-term expected rate of return on pension plan investments using a buildingblock method. In selecting this assumption, OSA reviewed the historical experience data, considered the historical conditions that produced past annual investment returns, and considered Capital Market Assumptions (CMAs) and simulated expected investment returns the WSIB provided.

The CMAs contain three pieces of information for each class of assets the WSIB currently invests in:

- Expected annual return
- Standard deviation of the annual return
- Correlations between the annual returns of each asset class with every other asset class

The WSIB uses the CMAs and their target asset allocation to simulate future investment returns over various time horizons.

The expected future rates of return (expected returns, net of pension plan investment expense, including inflation) are developed by WSIB for each major asset class.

Best estimates of arithmetic real rates of return for each major asset class included in the pension plan's target asset allocation as of June 30, 2017, are summarized in the following table:

## TRS Plan 1

| Asset Class | Target Allocation | Long-Term Expected <br> Real Rate of Return |
| :--- | ---: | ---: |
| Fixed Income | $20.00 \%$ | $1.70 \%$ |
| Tangible Assets | $5.00 \%$ | $4.90 \%$ |
| Real Estate | $15.00 \%$ | $5.80 \%$ |
| Global Equity | $37.00 \%$ | $6.30 \%$ |
| Private Equity | $23.00 \%$ | $9.30 \%$ |

The inflation component used to create the table above was $2.20 \%$ and represents the WSIB's most recent long-term estimate of broad economic inflation.

For additional information and background on OSA's development of the long-term rate of return assumption, please see the 2015 Report on Financial Condition and Economic Study located on the OSA website. The selection of this assumption and economic experience studies are further detailed in the Actuarial Certification Letter.

Discount Rate: The discount rate used to measure the total pension liability was $7.50 \%$. To determine the discount rate, an asset sufficiency test was completed to test whether the pension plan's fiduciary net position was sufficient to make all projected future benefit payments of current plan members. Consistent with current law, the completed asset sufficiency test included an assumed $7.70 \%$ long-term discount rate to determine funding liabilities for calculating future contribution rate requirements. Consistent with the long-term expected rate of return, a $7.50 \%$ future investment rate of return on invested assets was assumed for the test.

Contributions from plan members and employers were assumed to continue being made at contractually required rates (including TRS Plan 2/3 employers, whose rates include a component for the TRS Plan 1 liability). Based on those assumptions, the pension plan's fiduciary net position was projected to be available to make all projected future benefit payments of current plan members. Therefore, the long-term expected rate of return of $7.50 \%$ on pension plan investments was applied to determine the total pension liability.

## Sensitivity of the Net Pension Liability to Changes in

 the Discount Rate: The following table presents the net pension liability of the employers calculated using the discount rate of $7.50 \%$ as well as what the employers' net pension liability would be if it were calculated using a discount rate that is 1 percentage point lower ( $6.50 \%$ ) or 1 percentage point higher ( $8.50 \%$ ) than the current rate.TRS Plan 1
Dollars in Thousands

|  | 1\% Decrease <br> $\mathbf{( 6 . 5 0 \% )}$ | Current Discount <br> Rate <br>  <br>  <br> $\mathbf{7 . 5 0 \% )}$ | $\mathbf{1 \%}$ Increase <br> $\mathbf{( 8 . 5 0 \% )}$ |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: |
| Employers' Net | $\$$ | $3,759,368$ | $\$$ | $3,023,268$ | $\$$ |
| Pension Liability |  |  |  |  | 286,123 |

## Notes to the Financial Statements (cont.)

TRS Plan 2/3
As of June 30, 2017, 307 employers were participating in TRS Plan 2/3.

Plan Membership: As of June 30, 2017, TRS Plan 2/3 membership consisted of the following:

| TRS Plan 2/3 |  |  |
| :--- | ---: | ---: |
|  | Plan 2 | Plan 3 |
| Inactive Plan Members or Beneficiaries Currently <br> Receiving Benefits | 5,076 | 10,289 |
| Inactive Plan Members Entitled to But Not Yet Receiving <br> Benefits | 2,532 | 8,568 |
| Active Plan Members | 19,133 | 54,487 |
| Total Membership | $\underline{\mathbf{2 6 , 7 4 1}}$ | $\mathbf{7 3 , 3 4 4}$ |

Vesting: TRS Plan 2 members are vested after completing five years of eligible service. TRS Plan 3 members are vested in the defined benefit portion of their plan after 10 years of service or after five years of service if 12 months of that service are earned after age 44.

Benefits Provided: TRS Plan 2/3 provides retirement, disability and death benefits. Retirement benefits for Plan 2 are calculated using $2 \%$ of the member's Average Final Compensation (AFC) times the member's years of service. Retirement defined benefits for Plan 3 are calculated using $1 \%$ of AFC times the member's years of service. AFC is the monthly average of the member's 60 consecutive highest-paid service credit months. TRS Plan 2/3 has no cap on years of service credit.

Members are eligible for retirement with a full benefit at age 65 with at least five years of service credit. Retirement before age 65 is considered an early retirement. TRS Plan $2 / 3$ members who have at least 20 years of service credit and are 55 years of age or older are eligible for early retirement with a reduced benefit. The benefit is reduced by a factor that varies according to age for each year before age 65. TRS Plan $2 / 3$ retirement benefits are actuarially reduced to reflect the choice of a survivor benefit.

Other TRS Plan $2 / 3$ benefits include duty and nonduty disability payments; a Cost-of-Living Adjustment (COLA) based on the Consumer Price Index, capped at 3\%
annually; and a one-time, duty-related death benefit, if the Washington State Department of Labor \& Industries finds the member eligible.

Contributions: The TRS Plan $2 / 3$ member and employer contribution rates are developed by the Office of the State Actuary (OSA) to fully fund Plan 2 and the defined benefit portion of Plan 3 . The Plan $2 / 3$ employer rates include components to address the TRS Plan 1 Unfunded Actuarial Accrued Liability and an administrative expense that is currently set at $0.18 \%$.

The TRS Plan $2 / 3$ required contribution rates (expressed as a percentage of covered payroll) at the close of fiscal year 2017 were as follows:

TRS Plan $2 / 3$

| Actual Contribution Rates | Employer | Employee <br> Plan 2 | Employee <br> Plan 3 |
| :--- | ---: | ---: | ---: |
| State Agencies | $13.13 \%$ | $5.95 \%$ | $0 \%$ |
| Local Governmental Units | $13.13 \%$ | $5.95 \%$ | $0 \%$ |

## Investments

Investment Policy: The Washington State Investment Board (WSIB) has been authorized by statute as having investment management responsibility for the pension funds. The WSIB manages retirement fund assets to maximize return at a prudent level of risk.

Retirement funds are invested in the Commingled Trust Fund (CTF). The CTF is a diversified pool of investments that invests in fixed income, public equity, private equity, real estate and tangible assets. Investment decisions are made within the framework of a Strategic Asset Allocation Policy and a series of WSIB-adopted investment policies for the various asset classes.

General information about the retirement funds' investments, valuation, classifications, concentrations and maturities can be found in "Note 1: Summary of Significant Accounting Policies and Plan Asset Matters."

## Notes to the Financial Statements (cont.)

Rate of Return': For the fiscal year ended June 30, 2017, the annual money-weighted rate of return on TRS Plan $2 / 3$ pension investments, net of pension plan investment expense, was $14.1 \%$. This money-weighted rate of return expresses investment performance, net of pension plan investment expense, and reflects both the size and timing of cash flows.

Net Pension Liability of Participating Employers The components of the net pension liability of TRS $2 / 3$ as of June 30, 2017, were as follows:

## TRS Plan 2/3 <br> Dollars in Thousands

| Total Pension Liability | $\$$ | $13,446,531$ |
| :--- | ---: | ---: |
| Plan Fiduciary Net Position |  | $(12,523,588)$ |
| Participating Employers' Net Pension Liability | $\mathbf{\$ 1}$ | $\mathbf{9 2 2 , 9 4 3}$ |
| Plan Fiduciary Net Position as a Percentage of Total |  | $93.1 \%$ |
| Pension Liability |  |  |

Actuarial Assumptions ${ }^{2}$ : The total pension liability was determined by an actuarial valuation as of June 30, 2016, with the results rolled forward to June 30, 2017, using the following actuarial assumptions, applied to all prior periods included in the measurement:

| TRS Plan $\mathbf{2 / 3}$ |  |
| :--- | :--- |
| Inflation | 3.0\% total economic inflation, $3.75 \%$ salary inflation |
| Salary | In addition to the base 3.75\% salary inflation assumption, |
| Increases | salaries are also expected to grow by promotions and longevity |
| Investment | $7.50 \%$ |
| Rate of Return |  |

Mortality rates were based on the RP-2000 report's "Combined Healthy Table" and "Combined Disabled Table," which the Society of Actuaries publishes. OSA applied offsets to the base table and recognized future improvements in mortality by projecting the mortality rates using $100 \%$ Scale BB. Mortality rates are applied on a generational basis, meaning members are assumed to receive additional mortality improvements in each future year throughout their lifetimes.

The actuarial assumptions used in the June 30 , 2016, valuation were based on the results of the

2007-2012 Experience Study Report and the 2015 Economic Experience Study. Additional assumptions for subsequent events and law changes are current as of the 2016 actuarial valuation report.

OSA selected a $7.50 \%$ long-term expected rate of return on pension plan investments using a building-block method. In selecting this assumption, OSA reviewed the historical experience data, considered the historical conditions that produced past annual investment returns, and considered Capital Market Assumptions (CMAs) and simulated expected investment returns the WSIB provided.

The CMAs contain three pieces of information for each class of assets the WSIB currently invests in:

- Expected annual return
- Standard deviation of the annual return
- Correlations between the annual returns of each asset class with every other asset class

The WSIB uses the CMAs and their target asset allocation to simulate future investment returns over various time horizons.

The expected future rates of return (expected returns, net of pension plan investment expense, including inflation) are developed by the WSIB for each major asset class.

Best estimates of arithmetic real rates of return for each major asset class included in the pension plan's target asset allocation as of June 30, 2017, are summarized in the following table:

TRS Plan 2/3

| Asset Class | Target Allocation | Long-Term Expected <br> Real Rate of Return |
| :--- | ---: | ---: |
| Fixed Income | $20.00 \%$ | $1.70 \%$ |
| Tangible Assets | $5.00 \%$ | $4.90 \%$ |
| Real Estate | $15.00 \%$ | $5.80 \%$ |
| Global Equity | $37.00 \%$ | $6.30 \%$ |
| Private Equity | $23.00 \%$ | $9.30 \%$ |

The inflation component used to create the table above

[^6]64 DRS $\nabla$ Financial Section - Comprehensive Annual Financial Report

## Notes to the Financial Statements (cont.)

was $2.20 \%$ and represents the WSIB 's most recent longterm estimate of broad economic inflation.

For additional information and background on OSA's development of the long-term rate of return assumption, please see the 2015 Report on Financial Condition and Economic Study located on the OSA website. The selection of this assumption and economic experience studies are further detailed in the Actuarial Certification Letter.

Discount Rate: The discount rate used to measure the total pension liability was $7.50 \%$. To determine the discount rate, an asset sufficiency test was completed to test whether the pension plan's fiduciary net position was sufficient to make all projected future benefit payments of current plan members. Consistent with current law, the completed asset sufficiency test included an assumed $7.70 \%$ long-term discount rate to determine funding liabilities for calculating future contribution rate requirements. Consistent with the long-term expected rate of return, a $7.50 \%$ future investment rate of return on invested assets was assumed for the test.

Contributions from plan members and employers were assumed to continue being made at contractually required rates. Based on those assumptions, the pension plan's fiduciary net position was projected to be available to make all projected future benefit payments of current plan members. Therefore, the long-term expected rate of return of $7.50 \%$ on pension plan investments was applied to determine the total pension liability.

## Sensitivity of the Net Pension Liability to Changes in

 the Discount Rate: The following table presents the net pension liability of the employers calculated using the discount rate of $7.50 \%$ as well as what the employers' net pension liability would be if it were calculated using a discount rate that is 1 percentage point lower $(6.50 \%)$ or 1 percentage point higher ( $8.50 \%$ ) than the current rate.
## TRS Plan $2 / 3$

Dollars in Thousands

|  | 1\% Decrease <br> $\mathbf{( 6 . 5 0 \% )}$ | Current Discount <br> Rate (7.50\%) | $\mathbf{1 \%}$ Increase <br> $\mathbf{( 8 . 5 0 \% )}$ |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: |
| Employers' Net <br> Pension Liability | $\$ 3,134,647$ | $\$$ | 922,943 | $\$$ | $(873,375)$ |

TRS Plan 3
As of June 30, 2017, 313 employers were participating in TRS Plan 3.

Plan Membership: As of June 30, 2017, TRS Plan 3 membership consisted of the following:

| TRS Plan 3 |  |
| :--- | ---: |
| Inactive Plan Members or Beneficiaries Currently Receiving Benefits | 10,289 |
| Inactive Plan Members Entitled to But Not Yet Receiving Benefits | 8,568 |
| Active Plan Members | $\underline{54,487}$ |
| Total Membership | $\underline{\mathbf{7 3 , 3 4 4}}$ |

Vesting: TRS Plan 3 members are immediately vested in the defined contribution portion of their plan.

Benefits Provided: TRS Plan 3 defined contribution benefits are totally dependent on employee contributions and investment earnings on those contributions.

Contributions: TRS Plan 3 members choose their contribution rate when joining membership and can change rates only when changing employers. As established by Chapter 41.34 RCW, the Plan 3 defined contribution rates are set at a minimum of $5 \%$ and a maximum of $15 \%$; members have six rate options to choose from. Employers do not contribute to the defined contribution benefits.

## Law Enforcement Officers' and Fire Fighters' Retirement System (LEOFF)

Administration: LEOFF was established in 1970, and its retirement benefit provisions are contained in Chapter 41.26 RCW. LEOFF membership includes all of the state's full-time, fully compensated, local law enforcement commissioned officers, fire fighters and, as of July 24, 2005, emergency medical technicians.

LEOFF is a cost-sharing, multiple-employer retirement system composed of two separate pension plans for both membership and accounting purposes. Both LEOFF plans are defined benefit plans.

## Notes to the Financial Statements (cont.)

## LEOFF Plan 1

As of June 30, 2017, 23 employers were participating in LEOFF Plan 1. The plan is closed to new entrants.

Plan Membership: As of June 30, 2017, LEOFF Plan 1 membership consisted of the following:

| LEOFF Plan 1 |  |
| :--- | ---: |
| Inactive Plan Members or Beneficiaries Currently Receiving Benefits | 7,283 |
| Inactive Plan Members Entitled to But Not Yet Receiving Benefits | 0 |
| Active Plan Members | 40 |
| Total Membership | $\underline{\mathbf{7 , 3 2 3}}$ |

Vesting: LEOFF Plan 1 members became vested after the completion of five years of eligible service.

Benefits Provided: LEOFF Plan 1 provides retirement, disability and death benefits. Retirement benefits are determined per year of service and are calculated as a percent of Final Average Salary (FAS) as follows:

| LEOFF Plan 1 |  |
| :--- | ---: |
| Years of Service | \% of FAS |
| $20+$ | $2.0 \%$ |
| $10-19$ | $1.5 \%$ |
| $5-9$ | $1.0 \%$ |

FAS is the basic monthly salary received at the time of retirement, provided a member has held the same position or rank for 12 months preceding the date of retirement. Otherwise, it is the average of the consecutive highest-paid 24 months' salary within the last 10 years of service. Members are eligible for retirement at age 50 with five years of service.

Other benefits include duty and nonduty disability payments, a Cost-of-Living Adjustment (COLA), and a one-time duty-related death benefit, if the Washington State Department of Labor \& Industries finds the member eligible.

Contributions: LEOFF Plan 1 had no required employer or employee contributions for fiscal year 2017. Employers paid only the administrative expense of $0.18 \%$ of covered payroll.

## Investments

Investment Policy: The Washington State Investment Board (WSIB) has been authorized by statute as having investment management responsibility for the pension funds. The WSIB manages retirement fund assets to maximize return at a prudent level of risk.

Retirement funds are invested in the Commingled Trust Fund (CTF). The CTF is a diversified pool of investments that invests in fixed income, public equity, private equity, real estate and tangible assets. Investment decisions are made within the framework of a Strategic Asset Allocation Policy and a series of WSIB-adopted investment policies for the various asset classes.

General information about the retirement funds' investments, valuation, classifications, concentrations and maturities can be found in "Note 1: Summary of Significant Accounting Policies and Plan Asset Matters."

Rate of Return': For the fiscal year ended June 30, 2017, the annual money-weighted rate of return on LEOFF Plan 1 pension investments, net of pension plan investment expense, was $13.95 \%$. This money-weighted rate of return expresses investment performance, net of pension plan investment expense, and reflects both the size and timing of cash flows.

Net Pension Liability of Participating Employers The components of the net pension liability of LEOFF Plan 1 employers as of June 30, 2017, were as follows:

| LEOFF Plan 1 |  |  |
| :--- | ---: | ---: |
| Dollars in Thousands |  |  |
| Total Pension Liability | $\$$ | $4,219,277$ |
| Plan Fiduciary Net Position |  | $(5,736,497)$ |
| Participating Employers' Net Pension Liability | $\mathbf{\$}$ | $\mathbf{( 1 , 5 1 7 , 2 2 0 )}$ |
| Plan Fiduciary Net Position as a Percentage of Total |  | $136.0 \%$ |
| Pension Liability |  |  |

Actuarial Assumptions²: The total pension liability was determined by an actuarial valuation as of June 30, 2016, with the results rolled forward to June 30, 2017,

[^7]66 DRS $\nabla$ Financial Section - Comprehensive Annual Financial Report

## Notes to the Financial Statements (cont.)

using the following actuarial assumptions, applied to all prior periods included in the measurement:

| LEOFF Plan |  |
| :--- | :--- |
| Inflation | 3.0\% total economic inflation, $3.75 \%$ salary inflation |
| Salary | In addition to the base $3.75 \%$ salary inflation assumption, |
| Increases | salaries are also expected to grow by promotions and longevity |
| Investment | $7.50 \%$ |
| Rate of Return |  |

Mortality rates were based on the RP-2000 report's "Combined Healthy Table" and "Combined Disabled Table," which the Society of Actuaries publishes. OSA applied offsets to the base table and recognized future improvements in mortality by projecting the mortality rates using $100 \%$ Scale BB. Mortality rates are applied on a generational basis, meaning members are assumed to receive additional mortality improvements in each future year throughout their lifetimes.

The actuarial assumptions used in the June 30, 2016, valuation were based on the results of the 2007-2012 Experience Study Report and the 2015 Economic Experience Study. Additional assumptions for subsequent events and law changes are current as of the 2016 actuarial valuation report.

The Office of the State Actuary (OSA) selected a $7.50 \%$ long-term expected rate of return on pension plan investments using a building-block method. In selecting this assumption, OSA reviewed the historical experience data, considered the historical conditions that produced past annual investment returns, and considered Capital Market Assumptions (CMAs) and simulated expected investment returns the WSIB provided.

The CMAs contain three pieces of information for each class of assets the WSIB currently invests in:

- Expected annual return
- Standard deviation of the annual return
- Correlations between the annual returns of each asset class with every other asset class

The WSIB uses the CMAs and their target asset allocation to simulate future investment returns over various time horizons.

The expected future rates of return (expected returns, net of pension plan investment expense, including inflation) are developed by the WSIB for each major asset class.

Best estimates of arithmetic real rates of return for each major asset class included in the pension plan's target asset allocation as of June 30, 2017, are summarized in the following table:

## LEOFF Plan 1

| Asset Class | Target Allocation | Long-Term Expected <br> Real Rate of Return |
| :--- | ---: | ---: |
| Fixed Income | $20.00 \%$ | $1.70 \%$ |
| Tangible Assets | $5.00 \%$ | $4.90 \%$ |
| Real Estate | $15.00 \%$ | $5.80 \%$ |
| Global Equity | $37.00 \%$ | $6.30 \%$ |
| Private Equity | $23.00 \%$ | $9.30 \%$ |

The inflation component used to create the table above was $2.20 \%$ and represents the WSIB's most recent longterm estimate of broad economic inflation.

For additional information and background on OSA's development of the long-term rate of return assumption, please see the 2015 Report on Financial Condition and Economic Study located on the OSA website. The selection of this assumption and economic experience studies are further detailed in the Actuarial Certification Letter.

Discount Rate: The discount rate used to measure the total pension liability was $7.50 \%$. To determine the discount rate, an asset sufficiency test was completed to test whether the pension plan's fiduciary net position was sufficient to make all projected future benefit payments of current plan members. Consistent with current law, the completed asset sufficiency test included an assumed $7.70 \%$ long-term discount rate to determine funding liabilities for calculating future contribution rate requirements. Consistent with the long-term expected rate of return, a $7.50 \%$ future investment rate of return on invested assets was assumed for the test.

Contributions from plan members and employers were assumed to continue being made at contractually required rates. Based on those assumptions, the pension plan's fiduciary net position was projected

## Notes to the Financial Statements (cont.)

to be available to make all projected future benefit payments of current plan members. Therefore, the longterm expected rate of return of $7.50 \%$ on pension plan investments was applied to determine the total pension liability.

Sensitivity of the Net Pension Liability to Changes in the Discount Rate: The following table presents the net pension liability of the employers calculated using the discount rate of $7.50 \%$ as well as what the employers' net pension liability would be if it were calculated using a discount rate that is 1 percentage point lower $(6.50 \%)$ or 1 percentage point higher ( $8.50 \%$ ) than the current rate.

```
LEOFF Plan 1
Dollars in Thousands
```

|  | 1\% Decrease <br> $\mathbf{( 6 . 5 0 \% )}$ | Current Discount <br> Rate (7.50\%) | $\mathbf{1 \%}$ Increase <br> $\mathbf{( 8 . 5 0 \% )}$ |  |
| :--- | ---: | ---: | ---: | ---: |
| Employers' Net | $\$(1,125,421)$ | $\$$ | $(1,517,220)$ | $\$(1,853,686)$ |
| Pension Liability |  |  |  |  |

## LEOFF Plan 2

As of June 30, 2017, 370 employers were participating in LEOFF Plan 2.

Plan Membership: As of June 30, 2017, LEOFF Plan 2 membership consisted of the following:

| LEOFF Plan 2 |  |
| :--- | ---: |
| Inactive Plan Members or Beneficiaries Currently Receiving Benefits | 5,140 |
| Inactive Plan Members Entitled to But Not Yet Receiving Benefits | 864 |
| Active Plan Members | $\underline{17,699}$ |
| Total Membership | $\underline{\mathbf{2 3 , 7 0 3}}$ |

Vesting: LEOFF Plan 2 members are vested after the completion of five years of eligible service.

Benefits Provided: LEOFF Plan 2 provides retirement, disability and death benefits. Retirement benefits are calculated using $2 \%$ of the member's Final Average Salary (FAS) times the member's years of service. FAS is the monthly average of the member's 60 consecutive highest-paid service credit months. Members are eligible for retirement with a full benefit at age 53 with at least five years of service credit. Members who retire before age 53 receive reduced benefits. If the member has at least 20 years of service and is age 50
to 52 , the reduction is $3 \%$ for each year before age 53. Otherwise, the benefits are actuarially reduced for each year before age 53. LEOFF Plan 2 retirement benefits are actuarially reduced to reflect the choice of a survivor benefit.

Other LEOFF Plan 2 benefits include duty and nonduty disability payments; a Cost-of-Living Adjustment (COLA) based on the Consumer Price Index, capped at 3\% annually; and a one-time, duty-related death benefit, if the Washington State Department of Labor \& Industries finds the member eligible.

Contributions: The LEOFF Plan 2 employer and employee contribution rates are developed by the Office of the State Actuary (OSA) to fully fund Plan 2. The employer rate includes an administrative expense component set at $0.18 \%$.

The LEOFF Plan 2 required contribution rates (expressed as a percentage of covered payroll) at the close of fiscal year 2017 were as follows:

| LEOFF Plan 2 |  |  |
| :--- | ---: | ---: |
| Actual Contribution Rates | Employer | Employee |
| Local Governmental Units | $5.23 \%$ | $8.41 \%$ |
| Ports and Universities | $8.59 \%$ | $8.41 \%$ |

## Investments

Investment Policy: The Washington State Investment Board (WSIB) has been authorized by statute as having investment management responsibility for the pension funds. The WSIB manages retirement fund assets to maximize return at a prudent level of risk.

Retirement funds are invested in the Commingled Trust Fund (CTF). The CTF is a diversified pool of investments that invests in fixed income, public equity, private equity, real estate and tangible assets. Investment decisions are made within the framework of a Strategic Asset Allocation Policy and a series of WSIB-adopted investment policies for the various asset classes.

General information about the retirement funds' investments, valuation, classifications, concentrations and maturities can be found in "Note 1: Summary of Significant Accounting Policies and Plan Asset Matters."

## Notes to the Financial Statements (cont.)

Rate of Return': For the fiscal year ended June 30, 2017, the annual money-weighted rate of return on LEOFF Plan 2 pension investments, net of pension plan investment expense, was $14.14 \%$. This money-weighted rate of return expresses investment performance, net of pension plan investment expense, and reflects both the size and timing of cash flows.

Net Pension Liability of Participating Employers The components of the net pension liability of the participating LEOFF Plan 2 employers as of June 30, 2017, were as follows:

| LEOFF Plan 2 |  |  |
| :--- | ---: | ---: |
| Dollars in Thousands |  |  |
| Total Pension Liability |  | $10,388,451$ |
| Plan Fiduciary Net Position | $\mathbf{( 1 1 , 7 7 6 , 1 2 7 )}$ |  |
| Participating Employers' Net Pension Liability | $\mathbf{\$ 1 , 3 8 7 , 6 7 6 )}$ |  |
| Plan Fiduciary Net Position as a Percentage of Total |  | $\mathbf{( 1 1 3 . 4 \%}$ |
| Pension Liability |  |  |

Actuarial Assumptions²: The total pension liability was determined by an actuarial valuation as of June 30, 2016, with the results rolled forward to June 30, 2017, using the following actuarial assumptions, applied to all prior periods included in the measurement:

## LEOFF Plan 2

| Inflation | 3.0\% total economic inflation, 3.75\% salary inflation |
| :--- | :--- |
| Salary | In addition to the base 3.75\% salary inflation assumption, |
| Increases | salaries are also expected to grow by promotions and longevity |
| Investment <br> Rate of Return | $7.50 \%$ |

Mortality rates were based on the RP-2000 report's "Combined Healthy Table" and "Combined Disabled Table," which the Society of Actuaries publishes. OSA applied offsets to the base table and recognized future improvements in mortality by projecting the mortality rates using $100 \%$ Scale BB. Mortality rates are applied on a generational basis, meaning members are assumed to receive additional mortality improvements in each future year throughout their lifetimes.

The actuarial assumptions used in the June 30,

2016, valuation were based on the results of the 2007-2012 Experience Study Report and the 2015 Economic Experience Study. Additional assumptions for subsequent events and law changes are current as of the 2016 actuarial valuation report.

OSA selected a $7.50 \%$ long-term expected rate of return on pension plan investments using a building-block method. In selecting this assumption, OSA reviewed the historical experience data, considered the historical conditions that produced past annual investment returns, and considered Capital Market Assumptions (CMAs) and simulated expected investment returns the WSIB provided.

The CMAs contain three pieces of information for each class of assets the WSIB currently invests in:

- Expected annual return
- Standard deviation of the annual return
- Correlations between the annual returns of each asset class with every other asset class

The WSIB uses the CMAs and their target asset allocation to simulate future investment returns over various time horizons.

The expected future rates of return (expected returns, net of pension plan investment expense, including inflation) are developed by the WSIB for each major asset class.

Best estimates of arithmetic real rates of return for each major asset class included in the pension plan's target asset allocation as of June 30, 2017, are summarized in the following table:

## LEOFF Plan 2

| Asset Class | Target Allocation | Long-Term Expected <br> Real Rate of Return |
| :--- | ---: | ---: |
| Fixed Income | $20.00 \%$ | $1.70 \%$ |
| Tangible Assets | $5.00 \%$ | $4.90 \%$ |
| Real Estate | $15.00 \%$ | $5.80 \%$ |
| Global Equity | $37.00 \%$ | $6.30 \%$ |
| Private Equity | $23.00 \%$ | $9.30 \%$ |

[^8]
## Notes to the Financial Statements (cont.)

The inflation component used to create the table above was $2.20 \%$ and represents the WSIB's most recent longterm estimate of broad economic inflation.

For additional information and background on OSA's development of the long-term rate of return assumption, please see the 2015 Report on Financial Condition and Economic Study located on the OSA website. The selection of this assumption and economic experience studies are further detailed in the Actuarial Certification Letter.

Discount Rate: The discount rate used to measure the total pension liability was $7.50 \%$. To determine the discount rate, an asset sufficiency test was completed to test whether the pension plan's fiduciary net position was sufficient to make all projected future benefit payments of current plan members. Consistent with current law, the completed asset sufficiency test included an assumed $7.50 \%$ long-term discount rate to determine funding liabilities for calculating future contribution rate requirements. Consistent with the long-term expected rate of return, a $7.50 \%$ future investment rate of return on invested assets was assumed for the test.

Contributions from plan members and employers were assumed to continue being made at contractually required rates. Based on those assumptions, the pension plan's fiduciary net position was projected to be available to make all projected future benefit payments of current plan members. Therefore, the long-term expected rate of return of $7.50 \%$ on pension plan investments was applied to determine the total pension liability.

## Sensitivity of the Net Pension Liability to Changes in

 the Discount Rate: The following table presents the net pension liability of the employers calculated using the discount rate of $7.50 \%$ as well as what the employers' net pension liability would be if it were calculated using a discount rate that is 1 percentage point lower ( $6.50 \%$ ) or 1 percentage point higher ( $8.50 \%$ ) than the current rate.
## LEOFF Plan 2

Dollars in Thousands

|  | 1\% Decrease <br> $\mathbf{( 6 . 5 0 \% )}$ | Current Discount <br> Rate $\mathbf{( 7 . 5 0 \% )}$ | 1\% Increase <br> $\mathbf{( 8 . 5 0 \% )}$ |  |
| :--- | ---: | ---: | ---: | ---: |
| Employers' Net | $\$$ | 300,291 | $\$$ | $(1,387,676)$ |$\$(2,762,961)$

## Washington State Patrol Retirement System (WSPRS)

Administration: WSPRS was established by the Legislature in 1947, and its retirement benefit provisions are contained in Chapter 43.43 RCW. WSPRS is a single-employer retirement system composed of two separate pension plans, and membership includes only commissioned employees of the Washington State Patrol.

WSPRS Plan 1 and WSPRS Plan 2 are defined benefit plans. The plans are reported together for financial reporting and investment purposes in the same pension fund. All assets of this combined Plan 1/2 may legally be used to pay the defined benefits of any WSPRS members or beneficiaries, as the terms of the plans define.

WSPRS Plan $1 / 2$
As of June 30, 2017, one employer was participating in WSPRS.

Plan Membership: As of June 30, 2017, membership consisted of the following:

| WSPRS Plan 1/2 |  |  |
| :--- | ---: | ---: |
|  | Plan 1 | Plan 2 |
| Inactive Plan Members or Beneficiaries Currently <br> Receiving Benefits | 1,114 | 0 |
| Inactive Plan Members Entitled to But Not Yet Receiving <br> Benefits | 73 | 33 |
| Active Plan Members | 446 | 546 |
| Total Membership | $\mathbf{1 , 6 3 3}$ | $\mathbf{5 7 9}$ |

Vesting: Active WSPRS Plan 1 and Plan 2 members do not have to meet a vesting requirement. Inactive WSPRS members are vested after the completion of five years of eligible service.

Plan 1 is closed to new entrants. All new WSPRS members are enrolled in Plan 2.

Benefits Provided: WSPRS Plans 1 and 2 provide retirement, disability and death benefits. Retirement benefits are calculated using $2 \%$ of the member's Average Final Salary (AFS) times the member's years of service, capped at $75 \%$. For Plan 1 members, AFS is based on the average of the member's 24

## Notes to the Financial Statements (cont.)

consecutive highest-paid service credit months. For Plan 2 members, AFS is based on the average of the member's 60 consecutive highest-paid service credit months.

Active members are eligible for retirement at age 55 with no minimum required service credit or at any age with 25 years of service credit. Members must retire no later than the first of the month following the month they reach age 65, unless the member is chief of the Washington State Patrol. WSPRS retirement benefits are actuarially reduced to reflect the choice of a survivor benefit.

Other benefits include a Cost-of-Living Adjustment (COLA), death benefits and a one-time, duty-related death benefit, if the Washington State Department of Labor \& Industries finds the member eligible.

Contributions: The WSPRS Plans 1 and 2 employer and employee contribution rates are developed by the Office of the State Actuary (OSA) to fully fund WSPRS. The employer rate includes an administrative expense component currently set at $0.18 \%$.

The WSPRS required contribution rates (expressed as a percentage of covered payroll) at the close of fiscal year 2017 were as follows:

| WSPRS Plan 1/2 |  |  |
| :--- | ---: | ---: |
| Actual Contribution Rates | Employer | Employee |
| State Agencies | $8.34 \%$ | $6.84 \%$ |

## Investment

Investment Policy: The Washington State Investment Board (WSIB) has been authorized by statute as having investment management responsibility for the pension funds. The WSIB manages retirement fund assets to maximize return at a prudent level of risk.

Retirement funds are invested in the Commingled Trust Fund (CTF). The CTF is a diversified pool of investments that invests in fixed income, public equity, private equity, real estate and tangible assets. Investment
decisions are made within the framework of a Strategic Asset Allocation Policy and a series of WSIB-adopted investment policies for the various asset classes.

General information about the retirement funds' investments, valuation, classifications, concentrations and maturities can be found in "Note 1: Summary of Significant Accounting Policies and Plan Asset Matters."

Rate of Return': For the fiscal year ended June 30, 2017, the annual money-weighted rate of return on WSPRS Plan $1 / 2$ pension investments, net of pension plan investment expense, was $14.03 \%$. This money-weighted rate of return expresses investment performance, net of pension plan investment expense, and reflects both the size and timing of cash flows.

Net Pension Liability of Participating Employers The components of the net pension liability of WSPRS as of June 30, 2017, were as follows:


Actuarial Assumptions²: The total pension liability was determined by an actuarial valuation as of June 30, 2016, with the results rolled forward to June 30, 2017, using the following actuarial assumptions, applied to all prior periods included in the measurement:

| WSPRS Plan 1/2 |  |
| :---: | :---: |
| Inflation | 3.0\% total economic inflation, 3.75\% salary inflation |
| Salary Increases | In addition to the base $3.75 \%$ salary inflation assumption, salaries are also expected to grow by promotions and longevity |
| Investment Rate of Return | 7.50\% |

[^9]
## Notes to the Financial Statements (cont.)

Mortality rates were based on the RP-2000 report's "Combined Healthy Table" and "Combined Disabled Table," which the Society of Actuaries publishes. OSA applied offsets to the base table and recognized future improvements in mortality by projecting the mortality rates using $100 \%$ Scale BB. Mortality rates are applied on a generational basis, meaning members are assumed to receive additional mortality improvements in each future year throughout their lifetimes.

The actuarial assumptions used in the June 30, 2016, valuation were based on the results of the 2007-2012 Experience Study Report and the 2015 Economic Experience Study. Additional assumptions for subsequent events and law changes are current as of the 2016 actuarial valuation report.

OSA selected a $7.50 \%$ long-term expected rate of return on pension plan investments using a buildingblock method. In selecting this assumption, OSA reviewed the historical experience data, considered the historical conditions that produced past annual investment returns, and considered Capital Market Assumptions (CMAs) and simulated expected investment returns the WSIB provided.

The CMAs contain three pieces of information for each class of assets the WSIB currently invests in:

- Expected annual return
- Standard deviation of the annual return
- Correlations between the annual returns of each asset class with every other asset class

The WSIB uses the CMAs and their target asset allocation to simulate future investment returns over various time horizons.

The expected future rates of return (expected returns, net of pension plan investment expense, including inflation) are developed by the WSIB for each major asset class.

Best estimates of arithmetic real rates of return for each major asset class included in the pension plan's target asset allocation as of June 30,2017, are summarized in the following table:

WSPRS Plan 1/2

| Asset Class | Target Allocation | Long-Term Expected <br> Real Rate of Return |
| :--- | ---: | ---: |
| Fixed Income | $20.00 \%$ | $1.70 \%$ |
| Tangible Assets | $5.00 \%$ | $4.90 \%$ |
| Real Estate | $15.00 \%$ | $5.80 \%$ |
| Global Equity | $37.00 \%$ | $6.30 \%$ |
| Private Equity | $23.00 \%$ | $9.30 \%$ |

The inflation component used to create the table above was $2.20 \%$ and represents the WSIB's most recent longterm estimate of broad economic inflation.

For additional information and background on OSA's development of the long-term rate of return assumption, please see the 2015 Report on Financial Condition and Economic Study located on the OSA website. The selection of this assumption and economic experience studies are further detailed in the Actuarial Certification Letter.

Discount Rate: The discount rate used to measure the total pension liability was $7.50 \%$. To determine the discount rate, an asset sufficiency test was completed to test whether the pension plan's fiduciary net position was sufficient to make all projected future benefit payments of current plan members. Consistent with current law, the completed asset sufficiency test included an assumed $7.70 \%$ long-term discount rate to determine funding liabilities for calculating future contribution rate requirements. Consistent with the long-term expected rate of return, a $7.50 \%$ future investment rate of return on invested assets was assumed for the test.

Contributions from plan members and employers were assumed to continue being made at contractually required rates. Based on those assumptions, the pension plan's fiduciary net position was projected to be available to make all projected future benefit payments of current plan members. Therefore, the longterm expected rate of return of $7.50 \%$ on pension plan investments was applied to determine the total pension liability.

## Sensitivity of the Net Pension Liability to Changes in

 the Discount Rate: The following table presents the net pension liability of the employers calculated using the discount rate of $7.50 \%$ as well as what the employers'
## Notes to the Financial Statements (cont.)

net pension liability would be if it were calculated using a discount rate that is 1 percentage point lower ( $6.50 \%$ ) or 1 percentage point higher ( $8.50 \%$ ) than the current rate.

```
WSPRS Plan 1/2
Dollars in Thousands
```

|  | 1\% Decrease <br> $\mathbf{( 6 . 5 0 \% )}$ | Current Discount <br> Rate (7.50\%) | 1\% Increase <br> $\mathbf{( 8 . 5 0 \% )}$ |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: |
| Employers' Net | $\$$ | 239,856 | $\$$ | 58,270 | $\$$ |
| Pension Liability |  |  |  |  | $(89,098)$ |

## Judicial Retirement System (JRS)

Administration: JRS was established by the Legislature in 1971, and its retirement benefit provisions are contained in Chapter 2.10 RCW. JRS is a single-employer retirement system, and membership includes judges elected or appointed to the Supreme Court, Court of Appeals and superior courts on or after August 9, 1971.

JRS is composed of and reported as one plan for accounting purposes. JRS is closed to new entrants.

Plan Membership: As of June 30, 2017, JRS membership consisted of the following:

| JRS |  |
| :--- | ---: |
| Inactive Plan Members or Beneficiaries Currently Receiving Benefits | 99 |
| Inactive Plan Members Entitled to But Not Yet Receiving Benefits | 0 |
| Active Plan Members | 0 |
| Total Membership | $\mathbf{9 9}$ |

Vesting: JRS members became vested after the completion of 15 years of eligible service or 12 years if the member left office involuntarily.

Benefits Provided: JRS provides retirement, disability and death benefits. Retirement benefits are calculated using $3.5 \%$ of the member's Final Average Salary (FAS) for members with 15 years of eligible service and $3 \%$ of FAS for members with 10 to 14 years of eligible service.

JRS members are eligible for retirement at the age of 60 with 15 years of service or with 12 years of service (if the member left office involuntarily and at least 15 years have passed from the beginning of judicial service).

Contributions: JRS had no active plan members during fiscal year 2017. Therefore, no employer or employee contributions were required. JRS retirement benefits are financed on a pay-as-you-go basis from a combination of investment earnings and funding from the state.

## Investments

The Office of the State Treasurer (OST) manages all pension assets for JRS.

Investment Policy: The overall objective of the OST investment policy is to construct an investment porifolio that is optimal, or efficient. An optimal, or efficient, porifolio is one that provides the greatest expected return for a given expected level of risk, or the lowest expected risk for a given expected return.

Eligible investments are only those securities and deposits authorized by statute (Chapters 39.58, 39.59, 43.250 and 43.84 .080 RCW) and include:

- Obligations of the U.S. government
- Obligations of U.S. government agencies or corporations wholly owned by the U.S. government
- Obligations of government-sponsored enterprises that are or might become eligible as collateral for advances to member banks as determined by the board of governors of the Federal Reserve
- Banker's acceptances purchased on the secondary market rated with the highest short-term credit rating of any two Nationally Recognized Statistical Rating Organizations (NRSROs) at the time of purchase (if the banker's acceptance is rated by more than two NRSROs, it must have the highest rating from all the organizations)
- Commercial paper, as long as the OST adheres to policies and procedures of the WSIB regarding commercial paper [RCW 43.84.080(7)]
- Certificates of deposit with financial institutions the Washington Public Deposit Protection Commission has qualified
- The Local Government Investment Pool
- Obligations of Washington state or its political subdivisions


## Notes to the Financial Statements (cont.)

General information about the retirement funds' investments, valuation, classifications, concentrations and maturities can be found in "Note 1: Summary of Significant Accounting Policies and Plan Asset Matters."

Rate of Return': For the fiscal year ended June 30, 2017, the annual money-weighted rate of return on JRS pension investments, net of pension plan investment expense, was $0.71 \%$. This money-weighted rate of return expresses investment performance, net of pension plan investment expense, and reflects both the size and timing of cash flows.

Net Pension Liability of Participating Employers The components of the net pension liability of JRS as of June 30, 2017, were as follows:

```
JRS
Dollars in Thousands
\begin{tabular}{lcr}
\hline Total Pension Liability & \(\$\) & 93,511 \\
Plan Fiduciary Net Position & & \((7,397)\) \\
\cline { 2 - 3 } Participating Employers' Net Pension Liability & \(\mathbf{\$}\) & \(\mathbf{8 6 , 1 1 4}\) \\
\hline \hline & \\
Plan Fiduciary Net Position as a Percentage of Total & & \(7.9 \%\)
\end{tabular}
```

Pension Liability

Actuarial Assumptions²: The total pension liability was determined by an actuarial valuation as of June 30, 2016, with the results rolled forward to June 30, 2017, using the following actuarial assumptions, applied to all prior periods included in the measurement:

| JRS |  |
| :--- | :--- |
| Inflation | $3.0 \%$ total economic inflation |
| Salary Increases | None; only inactive participants |
| Investment | $3.58 \%$ |
| Rate of Return |  |

For JRS, mortality rates were set equal to those used for PERS. Mortality rates were based on the RP-2000 report's "Combined Healthy Table" and "Combined Disabled Table," which the Society of Actuaries publishes. OSA applied offsets to the base table and recognized future improvements in mortality by projecting the mortality rates using $100 \%$ Scale BB. Mortality rates are applied on a generational basis,
meaning members are assumed to receive additional mortality improvements in each future year throughout their lifetimes.

The actuarial assumptions used in the June 30 , 2016, valuation were based on the results of the 2007-2012 Experience Study Report and the 2015 Economic Experience Study. Additional assumptions for subsequent events and law changes are current as of the 2016 actuarial valuation report.

JRS is operated on a pay-as-you-go basis; therefore, the long-term expected rate of return on pension plan investments is $3.58 \%$, equal to the Municipal Bond Index.

JRS balances are split into two investment porffolios by OST, a liquidity pool and a core porffolio. The liquidity pool is managed like a money market fund. The core portfolio is invested like a short-term bond fund, with an average maturity of about 1.75 years. The core poriffolio is invested in government and agency fixed-income products. The asset allocation between these two pools has generally been $40 \%$ liquidity pool and $60 \%$ core porffolio. Over time, as OST projections for cash needs dictate, money will flow between these two portfolios.

Discount Rate: Contributions are made to JRS to ensure cash is available to make benefit payments. Since this plan is operated on a pay-as-you-go basis, the discount rate used to measure the total pension liability was set equal to the Bond Buyer General Obligation 20-Bond Municipal Bond Index, or $3.58 \%$ for the June 30, 2017, measurement date.

## Sensitivity of the Net Pension Liability to Changes in

 the Discount Rate: The following table presents the net pension liability of the employers calculated using the discount rate of $3.58 \%$ as well as what the employers' net pension liability would be if it were calculated using a discount rate that is 1 percentage point lower ( $2.58 \%$ ) or 1 percentage point higher ( $4.58 \%$ ) than the current rate.[^10]74 DRS $\nabla$ Financial Section - Comprehensive Annual Financial Report

## Notes to the Financial Statements (cont.)

JRS
Dollars in Thousands

|  | 1\% Decrease <br> $\mathbf{( 2 . 5 8 \% )}$ | Current Discount <br> Rate (3.58\%) | 1\% Increase <br> $\mathbf{( 4 . 5 8 \%}$ |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: |
| Employers' Net <br> Pension Liability | $\$$ | 94,558 | $\$$ | 86,114 | $\$$ |

## Judges' Retirement Fund (JRF)

Administration: The Judges' Retirement Fund (JRF) was established in 1937, and its retirement benefit provisions are contained in Chapter 2.12 RCW. JRF is a single-employer retirement system composed of a single defined benefit plan. Members include judges of the Supreme Court, Court of Appeals and superior courts of Washington state. JRF has been closed to new entrants since 1971.

JRF is composed of and reported as one plan for accounting purposes.

Plan Membership: As of June 30, 2017, JRF membership consisted of the following:

| JRF |  |
| :--- | ---: |
| Inactive Plan Members or Beneficiaries Currently Receiving Benefits | 11 |
| Inactive Plan Members Entitled to But Not Yet Receiving Benefits | 0 |
| Active Plan Members | 0 |
| Total Membership | $\mathbf{1 1}$ |

Vesting: JRF members became vested after the completion of 18 years of eligible service at any age or 10 years of eligible service at age 70 .

Benefits Provided: JRF provides disability and retirement benefits.

Contributions: No active plan members were in JRF during fiscal year 2017. Therefore, no employer or employee contributions were required. JRF retirement benefits are financed on a pay-as-you-go basis from a combination of investment earnings and funding from the state.

## Investments

The Office of the State Treasurer (OST) manages all pension assets for JRF.

Investment Policy: The overall objective of the OST investment policy is to construct an investment porifolio that is optimal, or efficient. An optimal, or efficient, poriffolio is one that provides the greatest expected return for a given expected level of risk, or the lowest expected risk for a given expected return.

Eligible investments are only those securities and deposits authorized by statute (Chapters 39.58, 39.59, 43.250 and 43.84.080 RCW) and include:

- Obligations of the U.S. government
- Obligations of U.S. government agencies or corporations wholly owned by the U.S. government
- Obligations of government-sponsored enterprises that are or might become eligible as collateral for advances to member banks as determined by the board of governors of the Federal Reserve
- Banker's acceptances purchased on the secondary market rated with the highest short-term credit rating of any two Nationally Recognized Statistical Rating Organizations (NRSROs) at the time of purchase (if the banker's acceptance is rated by more than two NRSROs, it must have the highest rating from all the organizations)
- Commercial paper, as long as the OST adheres to policies and procedures of the WSIB regarding commercial paper [RCW 43.84.080(7)]
- Certificates of deposit with financial institutions the Washington Public Deposit Protection Commission has qualified
- The Local Government Investment Pool
- Obligations of Washington state or its political subdivisions

General information about the retirement funds' investments, valuation, classifications, concentrations and maturities can be found in "Note 1: Summary of Significant Accounting Policies and Plan Asset Matters."

Rate of Return': For the fiscal year ended June 30, 2017, the annual money-weighted rate of return on JRF pension investments, net of pension plan investment

[^11]
## Notes to the Financial Statements (cont.)

expense, was $0.71 \%$. This money-weighted rate of return expresses investment performance, net of pension plan investment expense, and reflects both the size and timing of cash flows.

Net Pension Liability of Participating Employers The components of the net pension liability of JRF as of June 30, 2017, were as follows:

| JRF |  |  |
| :--- | :---: | ---: |
| Dollars in Thousands |  |  |
| Total Pension Liability | $\$$ | 2,848 |
| Plan Fiduciary Net Position | $(683)$ |  |
| Participating Employers' Net Pension Liability | $\underline{\mathbf{\$}}$ | $\mathbf{2 , 1 6 5}$ |
| Plan Fiduciary Net Position As a Percentage of Total |  | $24.0 \%$ | Pension Liability

Actuarial Assumptions ${ }^{1}$ : The total pension liability was determined by an actuarial valuation as of June 30, 2016, with the results rolled forward to June 30, 2017, using the following actuarial assumptions, applied to all prior periods included in the measurement:

| JRF |  |
| :--- | :--- |
| Inflation | $3.0 \%$ total economic inflation |
| Salary Increases | None; only inactive participants |
| Investment | $3.58 \%$ |
| Rate of Return |  |

For JRF, mortality rates were set equal to those used for PERS. Mortality rates were based on the RP-2000 report's "Combined Healthy Table" and "Combined Disabled Table," which the Society of Actuaries publishes. OSA applied offsets to the base table and recognized future improvements in mortality by projecting the mortality rates using $100 \%$ Scale BB. Mortality rates are applied on a generational basis, meaning members are assumed to receive additional mortality improvements in each future year throughout their lifetimes.

The actuarial assumptions used in the June 30, 2016, valuation were based on the results of the 2007-2012 Experience Study Report and the 2015 Economic Experience Study. Additional assumptions for subsequent events and law changes are current as of
the 2016 actuarial valuation report.
JRF is operated on a pay-as-you-go basis; therefore, the long-term expected rate of return on pension plan investments is $3.58 \%$, equal to the Municipal Bond Index.

JRF balances are split into two investment porifolios by OST, a liquidity pool and a core porffolio. The liquidity pool is managed like a money market fund. The core portfolio is invested like a short-term bond fund, with an average maturity of about 1.75 years. The core porffolio is invested in government and agency fixedincome products. The asset allocation between these two pools has generally been $40 \%$ liquidity pool and $60 \%$ core portfolio. Over time, as OST projections for cash needs dictate, money will flow between these two porffolios.

Discount Rate: Contributions are made to JRF to ensure cash is available to make benefit payments. Since this plan is operated on a pay-as-you-go basis, the discount rate used to measure the total pension liability was set equal to the Bond Buyer General Obligation 20-Bond Municipal Bond Index, or $3.58 \%$ for the June 30, 2017, measurement date.

## Sensitivity of the Net Pension Liability to Changes in

 the Discount Rate: The following table presents the net pension liability of the employers calculated using the discount rate of $3.58 \%$ as well as what the employers' net pension liability would be if it were calculated using a discount rate that is 1 percentage point lower ( $2.58 \%$ ) or 1 percentage point higher ( $4.58 \%$ ) than the current rate.
## JRF

Dollars in Thousands

|  | 1\% Decrease <br> $\mathbf{( 2 . 5 8 \%}$ | Current Discount <br> Rate (3.58\%) | $\mathbf{1 \%}$ Increase <br> $\mathbf{( 4 . 5 8 \%}$ |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: |
| Employers' Net | $\$$ | 2,273 | $\$$ | 2,165 | $\$$ |
| Pension Liability |  |  |  |  |  |

[^12]76 DRS $\nabla$ Financial Section - Comprehensive Annual Financial Report

## Notes to the Financial Statements (cont.)

## Recent Legislation Affecting Pension Systems/Plans

DRS-Administered During Fiscal Year 2017
Arranged Chronologically by Effective Date - Page 1 of 2

| Legal Reference | Effective Date | Systems/Plans Affected | Description |
| :---: | :---: | :---: | :---: |
| Chapter 22, <br> Laws of 2013 <br> (SB 5046) | 7/28/2013 | PERS | The mandatory retirement criteria for district court judges was changed to require retirement after the end of the term of office in which they turn age 75 , instead of at the end of the calendar year in which they turn age 75 . |
| Chapter 287, Laws of 2013 (SHB 1868) | 7/28/2013 | LEOFF 2 | This law allows catastrophically disabled LEOFF Plan 2 members to be reimbursed for premiums of medical insurance other than those the employer, COBRA, or Medicare A and/or B provide. The reimbursement is limited to payments made after June 30,2013 , that do not exceed the premium reimbursement amounts COBRA authorized. |
| Chapter 95, Laws of 2014 (SB 6321) | 6/12/2014 | PERS 3, SERS 3 and TRS 3 | This law removes annual rate flexibility in Plans 3. A TRS 3 member no longer has the option to change contribution rates each year during the month of January. This bill amends RCW 41.34.040, removing the annual change option, and became effective after January 2015. Even though this statutory option applies to PERS 3 and SERS 3 members as well, it has never been implemented in those plans. This modification is deemed necessary by the Internal Revenue Service to ensure Plans 3 retain favorable tax qualification. |
| Chapter 145, Laws of 2014 (HB 2456) | 6/12/2014 | LEOFF | This law eliminates the expiration date on the statutory provision in the LEOFF definition of "fire fighter" that includes emergency medical technicians (EMTs). This correction allows EMTs continued eligibility for membership in LEOFF. |
| Chapter 91, Laws of 2014 (SB 6201) | 6/12/2014 | LEOFF 2 | This law allows LEOFF Plan 2 members to use funds from certain tax-qualified plans to purchase life annuities from the LEOFF Plan 2 trust fund at the time of retirement. |
| Chapter 172, Laws of 2014 (SB 6328) | 6/12/2014 | Deferred Compensation Program | This law allows the state and other local government authorizing entities the option to allow employees participating in the employer-sponsored Deferred Compensation Program to purchase individual securities within the plan investment options. It does not require plans to make this option available; it only allows it. |
| Chapter 75, <br> Laws of 2015 <br> (HB 1168) | 7/24/2015 | PERS 2 and 3 | ESHB 1981 of the 2011 session modified the return-to-work rules for PERS retirees. This law corrects some unintended consequences of those statute changes to ensure: <br> - PERS retirees who return to work in ineligible positions would not be subject to the 867-hour limitation <br> - PERS Plans 2 and 3 retirees who return to work in eligible positions covered by other DRS-administered systems would be eligible to work up to 867 hours before their benefits are suspended |
| Chapter 111, Laws of 2015 (SB 5210) | 7/24/2015 | WSPRS | This law allows WSPRS members to use funds from certain tax-qualified plans to purchase life annuities from the WSPRS trust fund at the time of retirement. |
| Chapter 78, <br> Laws of 2015 <br> (HB 1194) | 7/24/2015 | LEOFF 2 and WSPRS | A surviving spouse of a LEOFF Plan 2 or WSPRS member who is killed in the line of duty is entitled to receive a monthly benefit of at least $60 \%$ of the member's wages from the state workers' compensation program. However, this benefit was terminated if the survivor remarries. This legislation allows the surviving spouse of a LEOFF Plan 2 or WSPRS member killed in the course of employment to remarry and continue receiving a workers' compensation survivor benefit. |
| Chapter 241, Laws of 2016 (SB 6194) | 4/3/2016 | TRS | This law allows charter school employees to be members of the state retirement systems as long as DRS receives determination from the Internal Revenue Service that the inclusion of those employees won't jeopardize the status of the systems as government plans. |
| Chapter 112, Laws of 2016 (SB 5435) | 6/9/2016 | All systems and plans | This law provides for the automatic enrollment of new state employees in the Washington State Deferred Compensation Program (DCP) with a default contribution rate of 3\%. Employees have the opportunity to opt out or set their own contribution rates. The law also gives DRS the option to offer a 401 (a) money-purchase retirement savings plan. |
| Chapter 211, Laws of 2016 (SB 6091) | 6/9/2016 | All systems and plans | This law clarifies the definition of "slayer" to include people found not guilty by reason of insanity. A slayer isn't entitled to receive a retirement benefit from the person he or she killed. |
| Chapter 236, Laws of 2016 (SB 6523) | 6/9/2016 | PERS | This law allows an employee providing emergency medical services to a consortium of local governments in Snohomish County to choose to establish service credit in PERS for service performed before July 23,2003 . The employee must pay both the employer and employee contributions, as DRS calculates, within five years of choosing to establish service credit. |
| Chapter 233, Laws of 2016 (SB 6455) | 6/9/2016 | TRS 2 and 3 | This law allows TRS members who retired using the 2008 Early Retirement Factors (ERFs) to return to work as substitute teachers for up to 867 hours without suspending their benefits. This provision is in effect from June 9, 2016, through July 31, 2020. |

## Notes to the Financial Statements (cont.)

## Recent Legislation Affecting Pension Systems/Plans

DRS-Administered During Fiscal Year 2017
Arranged Chronologically by Effective Date - Page 2 of 2

| Legal Reference | Effective Date | Systems/Plans Affected | Description |
| :---: | :---: | :---: | :---: |
| Chapter 120, Laws of 2016 (SB 5873) | 6/9/2016 | LEOFF 1 | This law gives a LEOFF Plan 1 retiree a chance to name as survivor a spouse he or she married after retiring. To qualify, the marriage needs to have spanned at least two years before Sept. 1, 2015. |
| Chapter 115, Laws of 2016 (SB 6263) | 6/9/2016 | LEOFF 2 | This law impacts LEOFF Plan 2 members who are called into eligible federal service to respond to natural disasters or other federal emergencies. It provides them with benefit protections similar to the ones provided to members of the National Guard or military reserves who are called during a time of war. |
| Chapter 222, Laws of 2016 (SB 6264) | 6/9/2016 | LEOFF and WSPRS | This law allows retirees of LEOFF and WSPRS a six-month window to purchase annuities. The annuities may be purchased between January 1 and June 1, 2017. |
| Chapter 188, Laws of 2017 (SB 5661) | 7/23/2017 | LEOFF 2 | This law instructs the Law Enforcement Officers' and Fire Fighters' Plan 2 Retirement Board to study the issue of interruptive military service credit for veterans who leave employment to serve in a specific conflict but who do not receive a campaign badge or medal. |
| Chapter 309, Laws of 2017 (HB 2202) | 7/23/2017 | LEOFF 2 | This law changes the definition of "employer" for LEOFF Plan 2 to include public corporations that provide emergency medical services. It narrows the definition of "emergency medical technicians" in LEOFF Plan 2 to require they be physician-trained, advanced EMTs or paramedics whose duties include providing emergency medical services. The law allows EMTs meeting certain eligibility criteria to establish service credit in LEOFF Plan 2 for qualifying services provided between July 24,2005 , and the bill's effective date. |
| Chapter 181, Laws of 2017 (SB 5274) | 7/23/2017 | WSPRS | This law amends the definition of "salary" in the WSPRS to include voluntary overtime earned after July 1, 2017. This would result in voluntary overtime of 70 hours or less per year being considered earnable compensation, which is used when calculating a retiree's Average Final Salary and, therefore, his or her monthly benefit amount. |
| Chapter 143, Laws of 2017 (HB 1709) | 7/23/2017 | PERS and PSERS | This law allows PERS members who meet certain eligibility criteria to transfer their PERS service credit into PSERS as long as they pay the difference between the PERS and PSERS employee contribution rates for the affected service credit. Their employers would also have to pay the difference between the PERS and PSERS employer contribution rates. |

## Notes to the Financial Statements (cont.)

## C. Funding Policy

All employers are required to contribute at the level the Legislature established. Plan-specific tables presented in Note 2 Section B provide the required contribution rates for each plan at the close of fiscal year 2017.

PERS: Each biennium, the state Pension Funding Council adopts Plan 1 employer contribution rates, Plan 2 employer and employee contribution rates, and Plan 3 employer contribution rates. Employee contribution rates for Plan 1 are established by statute at $6 \%$. The employer and employee contribution rates for Plan 2 and the employer contribution rate for Plan 3 are developed by the Office of the State Actuary to fully fund Plan 2 and the defined benefit portion of Plan 3. Under Plan 3, employer contributions finance the defined benefit portion of the plan, and member contributions finance the defined contribution portion. The Plan 3 employee contribution rates range between $5 \%$ and $15 \%$.

The methods used to determine PERS contribution requirements are established under state statute in accordance with Chapters 41.40 and 41.45 RCW.

SERS: Each biennium, the state Pension Funding Council adopts Plan 2 employer and employee contribution rates and Plan 3 employer contribution rates. The employer and employee contribution rates for Plan 2 and the employer contribution rate for Plan 3 are developed by the Office of the State Actuary to fully fund Plan 2 and the defined benefit portion of Plan 3. Under Plan 3, employer contributions finance the defined benefit portion of the plan, and member contributions finance the defined contribution portion. The Plan 3 employee contribution rates range between $5 \%$ and $15 \%$.

The methods used to determine SERS contribution requirements are established under state statute in accordance with Chapters 41.35 and 41.45 RCW.

PSERS: Each biennium, the state Pension Funding Council adopts Plan 2 employer and employee contribution rates. The employer and employee contribution rates are developed by the Office of the State Actuary to fully fund Plan 2.

The methods used to determine PSERS contribution requirements are established under state statute in accordance with Chapters 41.37 and 41.45 RCW.

TRS: Each biennium, the state Pension Funding Council adopts Plan 1 employer contribution rates, Plan 2 employer and employee contribution rates, and Plan 3 employer contribution rates. Employee contribution rates for Plan 1 are established by statute at $6 \%$. The employer and employee contribution rates for Plan 2 and the employer contribution rate for Plan 3 are developed by the Office of the State Actuary to fully fund Plan 2 and the defined benefit portion of Plan 3. Under Plan 3, employer contributions finance the defined benefit portion of the plan and member contributions finance the defined contribution portion. The Plan 3 employee contribution rates range between $5 \%$ and $15 \%$.

The methods used to determine the TRS contribution requirements are established under state statute in accordance with Chapters 41.32 and 41.45 RCW.

LEOFF: Employer and employee contribution rates are developed by the Office of the State Actuary to fully fund the plans. Since July 1, 2000, Plan 1 employers and employees contribute $0 \%$, as long as the plan remains fully funded. Plan 2 employers and employees pay at the rate the LEOFF Plan 2 Retirement Board adopts.

The Legislature, by means of a special funding arrangement, appropriates money from the state General Fund to supplement the current service liability and fund the prior service costs of Plan 2 in accordance with the recommendations of the Office of the State Actuary and the LEOFF Plan 2 Retirement Board.

This special funding situation is not mandated by the state Constitution and could be changed by statute. For fiscal year 2017, the state contributed $\$ 62.1$ million to LEOFF Plan 2.

The methods used to determine the contribution requirements are established under state statute in accordance with Chapters 41.26 and 41.45 RCW.

## Notes to the Financial Statements (cont.)

WSPRS: Each biennium, the state Pension Funding Council adopts the employee and state contribution rates, subject to revision by the Legislature. The employee and state contribution rates are developed by the Office of the State Actuary to fully fund the plans.

The methods used to determine the contribution requirements are established under state statute in accordance with Chapters 43.43 and 41.45 RCW.

JRS: No active members are in the Judicial Retirement System. The state guarantees the solvency of JRS on a pay-as-you-go basis. Each biennium, the Legislature, through appropriations from the state General Fund, contributes amounts sufficient to meet benefit payment requirements. For fiscal year 2017, the state contributed $\$ 9.3$ million.

JRF: No active members are in the Judges' Retirement Fund. The state guarantees the solvency of JRF on a pay-as-you-go basis. Each biennium, the Legislature, through appropriations from the state General Fund, contributes amounts sufficient to meet benefit payment requirements. For fiscal year 2017, the state contributed $\$ 0.5$ million

## D. Judicial Retirement Account

The Judicial Retirement Account (JRA) was established by the Legislature in 1988 to provide supplemental retirement benefits. It is a defined contribution plan the state of Washington Administrative Office of the Courts administers under the direction of the Board for Judicial Administration. Membership includes judges elected or appointed to the Supreme Court, Court of Appeals and superior courts who are members of PERS for their services as a judge. Vesting is full and immediate.

Since January 1, 2007, any newly elected or appointed Supreme Court justice, Court of Appeals judge or superior court judge may no longer participate in JRA. As of June 30, 2017, three active members and 123 inactive members were in JRA. The state is the sole participating employer in JRA.

JRA plan members are required to contribute $2.5 \%$ of covered salary. The state, as employer, contributes an equal amount on a monthly basis. The employer and
employee obligations to contribute are established in Chapter 2.14 RCW. Plan provisions and contribution requirements are established in state statute, and only the state Legislature can amend them.

A JRA member who separates from service for any reason is entitled to receive a lump sum distribution of accumulated contributions. If a member dies, the amount of accumulated contributions standing to the member's credit at the time of the member's death is to be paid to the member's estate or such person or persons, trust, or organization as the member has nominated by written designation.

The administrator of JRA has entered into an agreement for services with DRS and with the Washington State Investment Board (WSIB). Under this agreement, DRS is responsible for all recordkeeping, accounting and reporting of member accounts and WSIB is granted the full power to establish investment policy, develop participant investment options and manage the investment funds for the JRA plan, consistent with the provisions of RCW 2.14.080 and 43.84.150.

## E. Deferred Compensation Program

The state of Washington offers participation to its employees and employees of those political subdivisions that elect to participate in the Deferred Compensation Program (DCP), pursuant to RCW 41.50.770, in accordance with Internal Revenue Code Section 457. The deferred compensation is not available to employees until termination, retirement, disability, death or unforeseeable financial emergency. DRS administers DCP.

The intent of the program is to provide additional income upon retirement. By deferring part of their income, participants can reduce their taxable income each year. The investments remain tax-free until they are withdrawn. The program provides participants with a means to easily save money and help supplement their other retirement income.

Employers of active participants may contribute to the participant's DCP account, but the participant and employer combined contributions may not exceed the

## Notes to the Financial Statements (cont.)

annual contribution limit set within Internal Revenue Code Section 457.

The state's DCP does not allow for loans to participants from their DCP accounts. However, as of June 30, 2017, DCP assets included a small receivable balance for loan payments because of new employers joining DCP and transferring their former plan's assets to the state's program.

Employees participating in DCP self-direct their investments through options the WSIB provides. The WSIB has the full power to invest monies in DCP in accordance with RCW 43.84.150, 43.33A. 140 and 41.50.770.

The program offers two investment options: the OneStep Investing option and the Build and Monitor option.

The One-Step Investing option is designed for those who do not have the desire, comfort level and/or time to select, monitor or rebalance their own allocation mix of funds. Each Retirement Strategy Fund is diversified and automatically rebalances, adjusting the participant's allocation mix as the participant moves toward a retirement date and continuing for 15 years beyond the person's target date.

The funds in this option include:

- Retirement Maturity Strategy
- 2005 Retirement Strategy
- 2010 Retirement Strategy
- 2015 Retirement Strategy
- 2020 Retirement Strategy
- 2025 Retirement Strategy
- 2030 Retirement Strategy
- 2035 Retirement Strategy
- 2040 Retirement Strategy
- 2045 Retirement Strategy
- 2050 Retirement Strategy
- 2055 Retirement Strategy
- 2060 Retirement Strategy

The Build and Monitor option requires the participant to:

- Select any or all of the following funds:
» Emerging Market Equity Index Fund
» Global Equity Index Fund
" Savings Pool
» Socially Responsible Balanced Fund
" U.S. Large Cap Equity Index Fund
» U.S. Small Cap Value Equity Index Fund
» Washington State Bond Fund
- Monitor account activity
- Rebalance the allocation mix as necessary to maintain desired investment objectives

DCP participants may adjust or suspend their participation in the program at any time. Upon separation from employment, DCP participants have the option of withdrawing some or all of the balance in their accounts or leaving their balances in place to continue to benefit from market fluctuations.

The IRS requires a DCP participant to start receiving mandatory account distributions at retirement or by April of the year after the participant turns $701 / 2$ years old, whichever comes later.

The WSIB holds in trust all amounts of compensation deferred through the program, all property and rights purchased with those amounts, and all income attributable to those amounts, as set forth under RCW 43.33A.030, for the exclusive benefit of DCP participants and their beneficiaries. Neither a participant nor the participant's beneficiary or beneficiaries, nor any other designee, has any right to commute, sell, assign, transfer or otherwise convey the right to receive any payments from the program. These payments and rights are nonassignable and nontransferable.

| PERS Plan 1 <br> Dollars in Thousands |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 6/30/2017 |  | 6/30/2016 |  | 6/30/2015 |  | 6/30/2014 |
| Total Pension Liability |  |  |  |  |  |  |  |  |
| Service Cost | \$ | 24,727 | \$ | 28,936 | \$ | 28,685 | \$ | 37,503 |
| Interest |  | 896,682 |  | 914,606 |  | 933,977 |  | 945,296 |
| Changes of Benefit Terms |  | - |  | - |  | - |  | - |
| Differences Between Expected and Actual Experience |  | 22,964 |  | 3,713 |  | 27,130 |  | - |
| Changes in Assumptions |  | (28) |  | $(36,416)$ |  | 23,339 |  | - |
| Benefit Payments, Including <br> Refunds of Member Contributions |  | $(1,199,219)$ |  | $(1,203,209)$ |  | $(1,202,994)$ |  | $(1,193,715)$ |
| Net Change in Total Pension Liability |  | $(254,874)$ |  | $(292,370)$ |  | $(189,863)$ |  | $(210,916)$ |
| Total Pension Liability — Beginning |  | 12,496,872 |  | 12,789,242 |  | 12,979,104 |  | 13,190,019 |
| Total Pension Liability — Ending (a) | \$ | 12,241,998 | \$ | 12,496,872 | \$ | 12,789,241 | \$ | 12,979,103 |
| Plan Fiduciary Net Position ${ }^{1}$ |  |  |  |  |  |  |  |  |
| Contributions - Employer | \$ | 609,287 | \$ | 595,982 | \$ | 462,100 | \$ | 448,895 |
| Contributions - Member |  | 15,430 |  | 18,457 |  | 21,617 |  | 28,087 |
| Net Investment Income |  | 945,300 |  | 157,070 |  | 336,310 |  | 1,311,995 |
| Benefit Payments, Including <br> Refunds of Member Contributions |  | $(1,199,219)$ |  | $(1,203,209)$ |  | $(1,202,994)$ |  | $(1,193,715)$ |
| Administrative Expense |  | (258) |  | (301) |  | (269) |  | (506) |
| Other |  | (21) |  | 90 |  | (9) |  | 36 |
| Net Change in Plan Fiduciary Net Position |  | 370,519 |  | $(431,911)$ |  | $(383,245)$ |  | 594,792 |
| Plan Fiduciary Net Position —Beginning |  | 7,126,401 |  | 7,558,312 |  | 7,941,557 |  | 7,346,765 |
| Plan Fiduciary Net Position — Ending (b) | \$ | 7,496,920 | \$ | 7,126,401 | \$ | 7,558,312 | \$ | 7,941,557 |
| Plan's Net Pension Liability (Asset) — Ending (a) - (b) | \$ | 4,745,078 | \$ | 5,370,471 | \$ | 5,230,929 | \$ | 5,037,546 |


| PERS Plan 2/3 <br> Dollars in Thousands |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 6/30/2017 |  | 6/30/2016 |  | 6/30/2015 |  | 6/30/2014 |
| Total Pension Liability |  |  |  |  |  |  |  |  |
| Service Cost | \$ | 944,842 | \$ | 893,404 | \$ | 864,319 | \$ | 934,401 |
| Interest |  | 2,717,410 |  | 2,506,824 |  | 2,302,453 |  | 2,057,556 |
| Changes of Benefit Terms |  | $(1,379)$ |  | - |  | - |  | - |
| Differences Between Expected and Actual Experience |  | 226,712 |  | $(218,153)$ |  | 491,528 |  | - |
| Changes in Assumptions |  | 1,798 |  | 62,968 |  | 7,450 |  | - |
| Benefit Payments, Including Refunds of Member Contributions |  | $(931,603)$ |  | $(812,514)$ |  | $(700,905)$ |  | $(600,862)$ |
| Net Change in Total Pension Liability |  | 2,957,780 |  | 2,432,529 |  | 2,964,845 |  | 2,391,095 |
| Total Pension Liability - Beginning |  | 35,517,545 |  | 33,085,016 |  | 30,120,170 |  | 27,729,076 |
| Total Pension Liability — Ending (a) | \$ | 38,475,325 | \$ | 35,517,545 | \$ | 33,085,015 | \$ | 30,120,171 |
| Plan Fiduciary Net Position ${ }^{1}$ |  |  |  |  |  |  |  |  |
| Contributions - Employer | \$ | 621,927 | \$ | 563,328 | \$ | 446,127 | \$ | 430,345 |
| Contributions - Member |  | 518,566 |  | 497,274 |  | 374,825 |  | 368,251 |
| Net Investment Income |  | 4,312,919 |  | 725,439 |  | 1,295,301 |  | 4,444,930 |
| Benefit Payments, Including <br> Refunds of Member Contributions |  | $(931,603)$ |  | $(812,514)$ |  | $(700,905)$ |  | $(600,862)$ |
| Administrative Expense |  | (491) |  | (759) |  | (581) |  | (617) |
| Other |  | $(3,139)$ |  | $(2,103)$ |  | $(1,617)$ |  | $(2,299)$ |
| Net Change in Plan Fiduciary Net Position |  | 4,518,179 |  | 970,665 |  | 1,413,150 |  | 4,639,748 |
| Plan Fiduciary Net Position —Beginning |  | 30,482,624 |  | 29,511,959 |  | 28,098,809 |  | 23,459,061 |
| Plan Fiduciary Net Position — Ending (b) | \$ | 35,000,803 | \$ | 30,482,624 | \$ | 29,511,959 | \$ | 28,098,809 |
| Plan's Net Pension Liability (Asset) — Ending (a) - (b) | \$ | 3,474,522 | \$ | 5,034,921 | \$ | 3,573,056 | \$ | 2,021,362 |

${ }^{1}$ Plan fiduciary net position does not include the administrative fund allocations to the trust funds noted in Note 1, Section G, of the Financial Section.
These schedules will be built prospectively until they contain 10 years of data. Before 2015, interest on service cost was included in the service cost category.

Required Supplementary Information: Schedules of Changes in Net Pension Liability (cont.)

| SERS Plan 2/3 |
| :--- |
| Dollars in Thousands |

Dollars in Thousands

|  |  | 6/30/2017 |  | 6/30/2016 |  | 6/30/2015 |  | 6/30/2014 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Total Pension Liability |  |  |  |  |  |  |  |  |
| Service Cost | \$ | 154,925 | \$ | 139,744 | \$ | 128,806 | \$ | 138,228 |
| Interest |  | 378,480 |  | 343,917 |  | 311,044 |  | 277,012 |
| Changes of Benefit Terms |  | - |  | - |  | - |  | - |
| Differences Between Expected and Actual Experience |  | 86,086 |  | 18,707 |  | 66,049 |  | - |
| Changes in Assumptions |  | 4 |  | 10,258 |  | 600 |  | - |
| Benefit Payments, Including Refunds of Member Contributions |  | $(133,266)$ |  | $(115,248)$ |  | $(99,075)$ |  | $(83,948)$ |
| Net Change in Total Pension Liability |  | 486,229 |  | 397,378 |  | 407,424 |  | 331,292 |
| Total Pension Liability <br> —Beginning |  | 4,870,806 |  | 4,473,428 |  | 4,066,004 |  | 3,734,712 |
| Total Pension Liability <br> ——nding (a) | \$ | 5,357,035 | \$ | 4,870,806 | \$ | 4,473,428 | \$ | 4,066,004 |
| Plan Fiduciary Net Position ${ }^{1}$ |  |  |  |  |  |  |  |  |
| Contributions - Employer | \$ | 134,727 | \$ | 115,480 | \$ | 97,386 | \$ | 88,783 |
| Contributions - Member |  | 52,401 |  | 47,155 |  | 35,445 |  | 31,856 |
| Net Investment Income |  | 597,913 |  | 100,201 |  | 178,038 |  | 607,982 |
| Benefit Payments, Including Refunds of Member Contributions |  | $(133,266)$ |  | $(115,248)$ |  | $(99,075)$ |  | $(83,948)$ |
| Administrative Expense |  | (21) |  | (21) |  | (20) |  | (30) |
| Other |  | $(2,233)$ |  | (806) |  | (580) |  | (462) |
| Net Change in Plan Fiduciary Net Position |  | 649,521 |  | 146,762 |  | 211,194 |  | 644,181 |
| Plan Fiduciary Net Position —Beginning |  | 4,214,039 |  | 4,067,277 |  | 3,856,083 |  | 3,211,902 |
| Plan Fiduciary Net Position — Ending (b) | \$ | 4,863,560 | \$ | 4,214,039 | \$ | 4,067,277 | \$ | 3,856,083 |
| Plan's Net Pension Liability (Asset) — Ending (a) - (b) | \$ | 493,475 | \$ | 656,767 | \$ | 406,151 | \$ | 209,921 |


| PSERS Plan 2 <br> Dollars in Thousands |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 6/30/2017 |  | 6/30/2016 |  | 6/30/2015 |  | 6/30/2014 |
| Total Pension Liability |  |  |  |  |  |  |  |  |
| Service Cost | \$ | 47,292 | \$ | 44,090 | \$ | 40,546 | \$ | 42,679 |
| Interest |  | 36,641 |  | 31,038 |  | 24,554 |  | 17,264 |
| Changes of Benefit Terms |  | 1,379 |  | - |  | - |  | - |
| Differences Between Expected and Actual Experience |  | $(1,513)$ |  | 266 |  | 19,950 |  | - |
| Changes in Assumptions |  | 35 |  | 84 |  | 131 |  | - |
| Benefit Payments, Including Refunds of Member Contributions |  | $(3,778)$ |  | $(3,277)$ |  | $(3,056)$ |  | $(2,450)$ |
| Net Change in Total Pension Liability |  | 80,056 |  | 72,201 |  | 82,125 |  | 57,493 |
| Total Pension Liability - Beginning |  | 443,214 |  | 371,013 |  | 288,888 |  | 231,395 |
| Total Pension Liability - Ending (a) | \$ | 523,270 | \$ | 443,214 | \$ | 371,013 | \$ | 288,888 |
| Plan Fiduciary Net Position ${ }^{1}$ |  |  |  |  |  |  |  |  |
| Contributions - Employer | \$ | 23,238 | \$ | 20,058 | \$ | 18,704 | \$ | 17,124 |
| Contributions - Member |  | 23,698 |  | 21,148 |  | 18,664 |  | 17,446 |
| Net Investment Income |  | 59,852 |  | 10,096 |  | 15,081 |  | 45,143 |
| Benefit Payments, Including Refunds of Member Contributions |  | $(3,778)$ |  | $(3,277)$ |  | $(3,056)$ |  | $(2,450)$ |
| Administrative Expense |  | (5) |  | (9) |  | (2) |  | (8) |
| Other |  | (44) |  | (61) |  | 1 |  | 5 |
| Net Change in Plan Fiduciary Net Position |  | 102,961 |  | 47,955 |  | 49,392 |  | 77,260 |
| Plan Fiduciary Net Position -Beginning |  | 400,716 |  | 352,761 |  | 303,369 |  | 226,109 |
| Plan Fiduciary Net Position — Ending (b) | \$ | 503,677 | \$ | 400,716 | \$ | 352,761 | \$ | 303,369 |
| Plan's Net Pension Liability (Asset) — Ending (a) - (b) | \$ | 19,593 | \$ | 42,498 | \$ | 18,252 | \$ | $(14,481)$ |

${ }^{1}$ Plan fiduciary net position does not include the administrative fund allocations to the trust funds noted in Note 1, Section G, of the Financial Section.
These schedules will be built prospectively until they contain 10 years of data. Before 2015, interest on service cost was included in the service cost category.

|  |  |  |  |  |  |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| TRS Plan l |  |  |  |  |  |  |  |
| Dollars in Thousands |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |


| TRS Plan 2/3 <br> Dollars in Thousands |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 6/30/2017 |  | 6/30/2016 |  | 6/30/2015 |  | 6/30/2014 |
| Total Pension Liability |  |  |  |  |  |  |  |  |
| Service Cost | \$ | 410,975 | \$ | 373,617 | \$ | 352,316 | \$ | 374,258 |
| Interest |  | 947,283 |  | 857,073 |  | 776,944 |  | 684,861 |
| Changes of Benefit Terms |  | - |  | - |  | - |  | - |
| Differences Between Expected and Actual Experience |  | 173,667 |  | (74,782) |  | 163,251 |  | - |
| Changes in Assumptions |  | 115 |  | 16,463 |  | 896 |  | - |
| Benefit Payments, Including Refunds of Member Contributions |  | $(257,731)$ |  | $(220,982)$ |  | $(186,052)$ |  | $(151,510)$ |
| Net Change in Total Pension Liability |  | 1,274,309 |  | 951,389 |  | 1,107,355 |  | 907,609 |
| Total Pension Liability <br> —Beginning |  | 12,172,222 |  | 11,220,833 |  | 10,113,479 |  | 9,205,870 |
| Total Pension Liability — Ending (a) | \$ | 13,446,531 | \$ | 12,172,222 | \$ | 11,220,834 | \$ | 10,113,479 |
| Plan Fiduciary Net Position ${ }^{1}$ |  |  |  |  |  |  |  |  |
| Contributions - Employer | \$ | 364,106 | \$ | 316,022 | \$ | 267,038 | \$ | 249,342 |
| Contributions - Member |  | 81,378 |  | 68,587 |  | 52,713 |  | 44,012 |
| Net Investment Income |  | 1,539,461 |  | 258,942 |  | 453,524 |  | 1,539,895 |
| Benefit Payments, Including Refunds of Member Contributions |  | $(257,731)$ |  | $(220,982)$ |  | $(186,052)$ |  | $(151,510)$ |
| Administrative Expense |  | (93) |  | (67) |  | (64) |  | (76) |
| Other |  | $(2,458)$ |  | (608) |  | (618) |  | (401) |
| Net Change in Plan Fiduciary Net Position |  | 1,724,663 |  | 421,894 |  | 586,541 |  | 1,681,262 |
| Plan Fiduciary Net Position —Beginning |  | 10,798,925 |  | 10,377,031 |  | 9,790,490 |  | 8,109,228 |
| Plan Fiduciary Net Position — Ending (b) | \$ | 12,523,588 | \$ | 10,798,925 | \$ | 10,377,031 | \$ | 9,790,490 |
| Plan's Net Pension Liability (Asset) — Ending (a) - (b) | \$ | 922,943 | \$ | 1,373,297 | \$ | 843,803 | \$ | 322,989 |

${ }^{1}$ Plan fiduciary net position does not include the administrative fund allocations to the trust funds noted in Note 1 , Section G, of the Financial Section.
These schedules will be built prospectively until they contain 10 years of data. Before 2015, interest on service cost was included in the service cost category.

Required Supplementary Information: Schedules of Changes in Net Pension Liability (cont.)

| LEOFF Plan 1 <br> Dollars in Thousands |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 6/30/2017 |  | 6/30/2016 |  | 6/30/2015 |  | 6/30/2014 |
| Total Pension Liability |  |  |  |  |  |  |  |  |
| Service Cost | \$ | 1,600 | \$ | 2,238 | \$ | 3,269 | \$ | 4,279 |
| Interest |  | 307,156 |  | 315,653 |  | 319,945 |  | 326,717 |
| Changes of Benefit Terms |  | - |  | - |  | - |  | - |
| Differences Between Expected and Actual Experience |  | $(69,993)$ |  | $(21,215)$ |  | $(65,557)$ |  | - |
| Changes in Assumptions |  | - |  | - |  | - |  | - |
| Benefit Payments, Including Refunds of Member Contributions |  | $(360,068)$ |  | $(361,022)$ |  | (358,745) |  | $(355,988)$ |
| Net Change in Total Pension Liability |  | $(121,305)$ |  | $(64,346)$ |  | $(101,088)$ |  | $(24,992)$ |
| Total Pension Liability - Beginning |  | 4,340,582 |  | 4,404,928 |  | 4,506,015 |  | 4,531,007 |
| Total Pension Liability — Ending (a) | \$ | 4,219,277 | \$ | 4,340,582 | \$ | 4,404,927 | \$ | 4,506,015 |
| Plan Fiduciary Net Position ${ }^{1}$ |  |  |  |  |  |  |  |  |
| Contributions - Employer | \$ | - | \$ | - | \$ | 60 | \$ | 98 |
| Contributions - Member |  | 1,908 |  | 837 |  | 1,016 |  | 844 |
| Net Investment Income |  | 723,820 |  | 120,945 |  | 248,793 |  | 934,123 |
| Benefit Payments, Including Refunds of Member Contributions |  | $(360,068)$ |  | $(361,022)$ |  | $(358,745)$ |  | $(355,988)$ |
| Administrative Expense |  | (31) |  | (41) |  | (18) |  | (44) |
| Other |  | - |  | - |  | 237 |  | - |
| Net Change in Plan Fiduciary Net Position |  | 365,629 |  | $(239,281)$ |  | $(108,657)$ |  | 579,033 |
| Plan Fiduciary Net Position —Beginning |  | 5,370,868 |  | 5,610,149 |  | 5,718,806 |  | 5,139,773 |
| Plan Fiduciary Net Position — Ending (b) | \$ | 5,736,497 | \$ | 5,370,868 | \$ | 5,610,149 | \$ | 5,718,806 |
| Plan's Net Pension Liability (Asset) — Ending (a) - (b) | \$ | $(1,517,220)$ | \$ | $(1,030,286)$ | \$ | $(1,205,222)$ | \$ | $(1,212,791)$ |


| LEOFF Plan 2 <br> Dollars in Thousands |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 6/30/2017 |  | 6/30/2016 |  | 6/30/2015 |  | 6/30/2014 |
| Total Pension Liability |  |  |  |  |  |  |  |  |
| Service Cost | \$ | 311,736 | \$ | 302,652 | \$ | 286,031 | \$ | 301,625 |
| Interest |  | 732,837 |  | 678,563 |  | 609,818 |  | 536,534 |
| Changes of Benefit Terms |  | - |  | 25,205 |  | 34,746 |  | - |
| Differences Between Expected and Actual Experience |  | $(58,105)$ |  | 8,409 |  | 107,309 |  | - |
| Changes in Assumptions |  | - |  | 4 |  | 3,232 |  | - |
| Benefit Payments, Including Refunds of Member Contributions |  | $(227,007)$ |  | $(190,712)$ |  | $(160,027)$ |  | $(133,949)$ |
| Net Change in Total Pension Liability |  | 759,461 |  | 824,121 |  | 881,109 |  | 704,210 |
| Total Pension Liability —Beginning |  | 9,628,990 |  | 8,804,869 |  | 7,923,759 |  | 7,219,549 |
| Total Pension Liability <br> — Ending (a) | \$ | 10,388,451 | \$ | 9,628,990 | \$ | 8,804,868 | \$ | 7,923,759 |
| Plan Fiduciary Net Position ${ }^{1}$ |  |  |  |  |  |  |  |  |
| Contributions - Employer | \$ | 95,920 | \$ | 92,049 | \$ | 89,122 | \$ | 85,532 |
| Contributions - State |  | 62,155 |  | 60,375 |  | 58,339 |  | 55,551 |
| Contributions - Member |  | 187,978 |  | 173,871 |  | 165,772 |  | 151,041 |
| Net Investment Income |  | 1,448,376 |  | 244,028 |  | 430,403 |  | 1,456,267 |
| Benefit Payments, Including Refunds of Member Contributions |  | $(227,007)$ |  | $(190,712)$ |  | $(160,027)$ |  | $(133,949)$ |
| Administrative Expense |  | $(1,920)$ |  | $(1,683)$ |  | $(1,504)$ |  | $(1,268)$ |
| Other |  | 5 |  | 23 |  | (238) |  | 241 |
| Net Change in Plan Fiduciary Net Position |  | 1,565,507 |  | 377,951 |  | 581,867 |  | 1,613,415 |
| Plan Fiduciary Net Position —Beginning |  | 10,210,620 |  | 9,832,669 |  | 9,250,802 |  | 7,637,387 |
| Plan Fiduciary Net Position — Ending (b) | \$ | 11,776,127 | \$ | 10,210,620 | \$ | 9,832,669 | \$ | 9,250,802 |
| Plan's Net Pension Liability (Asset) — Ending (a) - (b) | \$ | $(1,387,676)$ | \$ | $(581,630)$ | \$ | $(1,027,801)$ | \$ | $(1,327,043)$ |

[^13]These schedules will be built prospectively until they contain 10 years of data. Before 2015, interest on service cost was included in the service cost category

| $\stackrel{\infty}{\circ}$ | Required Suppl <br> WSPRS Plan $1 / 2$ <br> Dollars in Thousands | mentary |  |  | formation |  | : Schedules of |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\begin{aligned} & 7 \\ & \hline \vdots \\ & 0 \\ & \hline 1 \end{aligned}$ |  |  |  |  |  |  |  |  |  |
| $\stackrel{\square}{\square}$ |  |  | 6/30/2017 |  | 6/30/2016 |  | 6/30/2015 |  | 6/30/2014 |
| $\begin{aligned} & \infty \\ & \end{aligned}$ | Total Pension Liability |  |  |  |  |  |  |  |  |
| $\stackrel{\bar{\circ}}{3}$ | Service Cost | \$ | 18,474 | \$ | 16,534 | \$ | 16,633 | \$ | 18,041 |
| । | Interest |  | 90,560 |  | 83,373 |  | 80,037 |  | 75,249 |
| 3 | Changes of Benefit Terms |  | 4,830 |  | 1,947 |  | 2,258 |  | - |
| $$ | Differences Between Expected and Actual Experience |  | 23,702 |  | $(10,430)$ |  | 8,883 |  | - |
| $\stackrel{\text { ¢ }}{\text { ¢ }}$ | Changes in Assumptions |  | 20,921 |  | 2 |  | 17 |  | - |
| $\xrightarrow{3}$ | Benefit Payments, Including Refunds of Member Contributions |  | $(56,821)$ |  | $(54,160)$ |  | $(50,075)$ |  | $(47,510)$ |
| $\begin{aligned} & 7 \\ & \vdots \\ & 0 \\ & \vdots \end{aligned}$ | Net Change in Total Pension Liability |  | 101,666 |  | 37,266 |  | 57,753 |  | 45,780 |
| $\stackrel{\square}{\square}$ | Total Pension Liability — Beginning |  | 1,167,443 |  | 1,130,177 |  | 1,072,424 |  | 1,026,644 |
| $\begin{aligned} & \mathrm{O} \\ & \end{aligned}$ | Total Pension Liability — Ending (a) | \$ | 1,269,109 | \$ | 1,167,443 | \$ | 1,130,177 | \$ | 1,072,424 |
|  | Plan Fiduciary Net Position ${ }^{1}$ |  |  |  |  |  |  |  |  |
|  | Contributions - Employer | \$ | 7,587 | \$ | 7,044 | \$ | 6,679 | \$ | 6,587 |
|  | Contributions - Member |  | 10,454 |  | 8,895 |  | 6,323 |  | 6,555 |
|  | Net Investment Income |  | 151,021 |  | 25,352 |  | 49,046 |  | 176,856 |
|  | Benefit Payments, Including Refunds of Member Contributions |  | $(56,821)$ |  | $(54,160)$ |  | $(50,075)$ |  | $(47,510)$ |
|  | Administrative Expense |  | (53) |  | (60) |  | (67) |  | (84) |
|  | Other |  | 524 |  | 429 |  | 293 |  | 509 |
|  | Net Change in Plan Fiduciary Net Position |  | 112,712 |  | $(12,499)$ |  | 12,199 |  | 142,913 |
|  | Plan Fiduciary Net Position —Beginning |  | 1,098,127 |  | 1,110,626 |  | 1,098,427 |  | 955,514 |
|  | Plan Fiduciary Net Position — Ending (b) | \$ | 1,210,839 | \$ | 1,098,127 | \$ | 1,110,626 | \$ | 1,098,427 |
|  | Plan's Net Pension Liability (Asset) — Ending (a) - (b) | \$ | 58,270 | \$ | 69,316 | \$ | 19,551 | \$ | $(26,003)$ |



Plan fiduciary net position does not include the administrative fund allocations to the trust funds noted in Note 1 , Section G , of the Financial Section.
These schedules will be built prospectively until they contain 10 years of data. Before 2015, interest on service cost was included in the service cost category.

Required Supplementary Information: Schedules of Changes in Net Pension Liability (cont.)


## Required Supplementary Information: Schedules of Net Pension Liability

## PERS Plan 1

Dollars in Thousands

|  | 6/30/2017 |  | 6/30/2016 |  | 6/30/2015 |  |  | 6/30/2014 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Total Pension Liability | \$ | 12,241,998 | \$ | 12,496,872 | \$ | 12,789,242 | \$ | 12,979,104 |
| Plan Fiduciary Net Position ${ }^{1}$ |  | 7,496,920 |  | 7,126,401 |  | 7,558,312 |  | 7,941,557 |
| Plan Net Pension Liability (Asset) | \$ | 4,745,078 | \$ | 5,370,471 | \$ | 5,230,930 | \$ | 5,037,547 |
| Plan Fiduciary Net Position as a Percentage of Total Pension Liability |  | 61.24\% |  | 57.03\% |  | 59.10\% |  | 61.19\% |
| Covered-Employee Payroll | \$ | 12,435,701 | \$ | 11,744,250 | \$ | 11,151,288 | \$ | 10,803,971 |
| Plan Net Pension Liability (Asset) as a Percentage of Covered-Employee Payroll |  | 38.16\% |  | 45.73\% |  | 46.91\% |  | 46.63\% |

## PERS Plan 2/3

Dollars in Thousands

|  | 6/30/2017 |  | 6/30/2016 |  | 6/30/2015 |  | 6/30/2014 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Total Pension Liability | \$ | 38,475,325 | \$ | 35,517,545 | \$ | 33,085,016 | \$ | 30,120,170 |
| Plan Fiduciary Net Position ${ }^{1}$ |  | 35,000,803 |  | 30,482,624 |  | 29,511,959 |  | 28,098,809 |
| Plan Net Pension Liability (Asset) | \$ | 3,474,522 | \$ | 5,034,921 | \$ | 3,573,057 | \$ | 2,021,361 |
| Plan Fiduciary Net Position as a Percentage of Total Pension Liability |  | 90.97\% |  | 85.82\% |  | 89.20\% |  | 93.29\% |
| Covered-Employee Payroll | \$ | 9,856,106 | \$ | 9,323,463 | \$ | 8,876,898 | \$ | 8,607,757 |
| Plan Net Pension Liability (Asset) as a Percentage of Covered-Employee Payroll |  | 35.25\% |  | 54.00\% |  | 40.25\% |  | 23.48\% |

## SERS Plan 2/3

Dollars in Thousands

|  | 6/30/2017 |  | 6/30/2016 |  | 6/30/2015 |  | 6/30/2014 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Total Pension Liability | \$ | 5,357,035 | \$ | 4,870,806 | \$ | 4,473,428 | \$ | 4,066,004 |
| Plan Fiduciary Net Position ${ }^{1}$ |  | 4,863,560 |  | 4,214,039 |  | 4,067,277 |  | 3,856,083 |
| Plan Net Pension Liability (Asset) | \$ | 493,475 | \$ | 656,767 | \$ | 406,151 | \$ | 209,921 |
| Plan Fiduciary Net Position as a Percentage of Total Pension Liability |  | 90.79\% |  | 86.52\% |  | 90.92\% |  | 94.84\% |
| Covered-Employee Payroll | \$ | 2,040,005 | \$ | 1,877,907 | \$ | 1,720,489 | \$ | 1,616,447 |
| Plan Net Pension Liability (Asset) as a Percentage of Covered-Employee Payroll |  | 24.19\% |  | 34.97\% |  | 23.61\% |  | 12.99\% |

## PSERS Plan 2

Dollars in Thousands

|  |  | 6/30/2017 |  | 6/30/2016 |  | 6/30/2015 |  | 6/30/2014 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Total Pension Liability | \$ | 523,270 | \$ | 443,214 | \$ | 371,013 | \$ | 288,888 |
| Plan Fiduciary Net Position ${ }^{1}$ |  | 503,677 |  | 400,716 |  | 352,761 |  | 303,369 |
| Plan Net Pension Liability (Asset) | \$ | 19,593 | \$ | 42,498 | \$ | 18,252 | \$ | $(14,481)$ |
| Plan Fiduciary Net Position as a Percentage of Total Pension Liability |  | 96.26\% |  | 90.41\% |  | 95.08\% |  | 105.01\% |
| Covered-Employee Payroll | \$ | 357,285 | \$ | 324,850 | \$ | 293,007 | \$ | 270,102 |
| Plan Net Pension Liability (Asset) as a Percentage of Covered-Employee Payroll |  | 5.48\% |  | 13.08\% |  | 6.23\% |  | (5.36)\% |

${ }^{1}$ Plan fiduciary net position does not include the administrative fund allocations to the trust funds noted in Note 1, Section G, of the Financial Section. These schedules will be built prospectively until they contain 10 years of data.

Required Supplementary Information: Schedules of Net Pension Liability (cont.)

## TRS Plan 1

Dollars in Thousands

|  | 6/30/2017 |  | 6/30/2016 |  | 6/30/2015 |  |  | 6/30/2014 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Total Pension Liability | \$ | 8,782,761 | \$ | 9,001,257 | \$ | 9,237,730 | \$ | 9,443,688 |
| Plan Fiduciary Net Position ${ }^{1}$ |  | 5,759,493 |  | 5,587,020 |  | 6,069,588 |  | 6,494,234 |
| Plan Net Pension Liability (Asset) | \$ | 3,023,268 | \$ | 3,414,237 | \$ | 3,168,142 | \$ | 2,949,454 |
| Plan Fiduciary Net Position as a Percentage of Total Pension Liability |  | 65.58\% |  | 62.07\% |  | 65.70\% |  | 68.77\% |
| Covered-Employee Payroll | \$ | 5,530,315 | \$ | 5,138,262 | \$ | 4,794,824 | \$ | 4,585,022 |
| Plan Net Pension Liability (Asset) as a Percentage of Covered-Employee Payroll |  | 54.67\% |  | 66.45\% |  | 66.07\% |  | 64.33\% |

TRS Plan 2/3
Dollars in Thousands

|  |  | 6/30/2017 |  | 6/30/2016 |  | 6/30/2015 |  | 6/30/2014 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Total Pension Liability | \$ | 13,446,531 | \$ | 12,172,222 | \$ | 11,220,833 | \$ | 10,113,479 |
| Plan Fiduciary Net Position ${ }^{1}$ |  | 12,523,588 |  | 10,798,925 |  | 10,377,031 |  | 9,790,490 |
| Plan Net Pension Liability (Asset) | \$ | 922,943 | \$ | 1,373,297 | \$ | 843,802 | \$ | 322,989 |
| Plan Fiduciary Net Position as a Percentage of Total Pension Liability |  | 93.14\% |  | 88.72\% |  | 92.48\% |  | 96.81\% |
| Covered-Employee Payroll | \$ | 5,466,408 | \$ | 5,054,071 | \$ | 4,681,511 | \$ | 4,436,592 |
| Plan Net Pension Liability (Asset) as a Percentage of Covered-Employee Payroll |  | 16.88\% |  | 27.17\% |  | 18.02\% |  | 7.28\% |

## LEOFF Plan 1

## Dollars in Thousands

|  |  | 6/30/2017 |  | 6/30/2016 |  | 6/30/2015 |  | 6/30/2014 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Total Pension Liability | \$ | 4,219,277 | \$ | 4,340,582 | \$ | 4,404,928 | \$ | 4,506,015 |
| Plan Fiduciary Net Position ${ }^{1}$ |  | 5,736,497 |  | 5,370,868 |  | 5,610,149 |  | 5,718,806 |
| Plan Net Pension Liability (Asset) | \$ | $(1,517,220)$ | \$ | $(1,030,286)$ | \$ | $(1,205,221)$ | \$ | $(1,212,791)$ |
| Plan Fiduciary Net Position as a Percentage of Total Pension Liability |  | 135.96\% |  | 123.74\% |  | 127.36\% |  | 126.91\% |
| Covered-Employee Payroll | \$ | 5,438 | \$ | 7,932 | \$ | 10,583 | \$ | 13,888 |
| Plan Net Pension Liability (Asset) as a Percentage of Covered-Employee Payroll |  | (27,900.33)\% |  | (12,988.98)\% |  | (11,388.27)\% |  | (8,732.65)\% |

## LEOFF Plan 2

Dollars in Thousands

|  | 6/30/2017 |  | 6/30/2016 |  | 6/30/2015 |  | 6/30/2014 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Total Pension Liability | \$ | 10,388,451 | \$ | 9,628,990 | \$ | 8,804,869 | \$ | 7,923,759 |
| Plan Fiduciary Net Position ${ }^{1}$ |  | 11,776,127 |  | 10,210,620 |  | 9,832,669 |  | 9,250,802 |
| Plan Net Pension Liability (Asset) | \$ | (1,387,676) | \$ | $(581,630)$ | \$ | $(1,027,800)$ | \$ | $(1,327,043)$ |
| Plan Fiduciary Net Position as a Percentage of Total Pension Liability |  | 113.36\% |  | 106.04\% |  | 111.67\% |  | 116.75\% |
| Covered-Employee Payroll | \$ | 1,882,667 | \$ | 1,804,024 | \$ | 1,744,180 | \$ | 1,674,432 |
| Plan Net Pension Liability (Asset) as a Percentage of Covered-Employee Payroll |  | (73.71)\% |  | (32.24)\% |  | (58.93)\% |  | (79.25)\% |

${ }^{1}$ Plan fiduciary net position does not include the administrative fund allocations to the trust funds noted in Note 1, Section G, of the Financial Section.
These schedules will be built prospectively until they contain 10 years of data.

Required Supplementary Information: Schedules of Net Pension Liability (cont.)

| WSPRS Plan $\mathbf{l} / \mathbf{2}$ <br> Dollars in Thousands |  |  |  |  |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
|  |  | $\mathbf{6 / 3 0 / 2 0 1 7}$ |  | $\mathbf{6 / 3 0 / 2 0 1 6}$ | $\mathbf{6 / 3 0 / 2 0 1 5}$ | $\mathbf{6 / 3 0 / 2 0 1 4}$ |
| Total Pension Liability | $\$$ | $1,269,109$ | $\$$ | $1,167,443$ | $\$$ | $1,130,177$ |
| Plan Fiduciary Net Position ${ }^{1}$ |  |  |  |  |  |  |

## JRS

Dollars in Thousands

|  | 6/30/2017 |  | 6/30/2016 |  | 6/30/2015 |  |  | 6/30/2014 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Total Pension Liability | \$ | 93,511 | \$ | 104,642 | \$ | 101,312 | \$ | 100,341 |
| Plan Fiduciary Net Position ${ }^{1}$ |  | 7,397 |  | 6,775 |  | 6,333 |  | 5,031 |
| Plan Net Pension Liability (Asset) | \$ | 86,114 | \$ | 97,867 | \$ | 94,979 | \$ | 95,310 |
| Plan Fiduciary Net Position as a Percentage of Total Pension Liability |  | 7.91\% |  | 6.47\% |  | 6.25\% |  | 5.01\% |
| Covered-Employee Payroll | \$ | - | \$ | - | \$ | - | \$ | - |
| Plan Net Pension Liability (Asset) as a Percentage of Covered-Employee Payroll |  | n/a |  | n/a |  | n/a |  | n/a |

JRF
Dollars in Thousands

|  | 6/30/2017 |  | 6/30/2016 |  | 6/30/2015 |  | 6/30/2014 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Total Pension Liability | \$ | 2,848 | \$ | 3,097 | \$ | 3,117 | \$ | 3,146 |
| Plan Fiduciary Net Position ${ }^{1}$ |  | 683 |  | 582 |  | 515 |  | 955 |
| Plan Net Pension Liability (Asset) | \$ | 2,165 | \$ | 2,515 | \$ | 2,602 | \$ | 2,191 |
| Plan Fiduciary Net Position as a Percentage of Total Pension Liability |  | 23.98\% |  | 18.79\% |  | 16.52\% |  | 30.36\% |
| Covered-Employee Payroll | \$ | - | \$ | - | \$ | - | \$ | - |
| Plan Net Pension Liability (Asset) as a Percentage of Covered-Employee Payroll |  | n/a |  | n/a |  | n/a |  | n/a |

${ }^{1}$ Plan fiduciary net position does not include the administrative fund allocations to the trust funds noted in Note 1 , Section G, of the Financial Section.
These schedules will be built prospectively until they contain 10 years of data.

Required Supplementary Information: Schedules of Employer Contributions

## PERS Plan 1

Dollars in Thousands

|  |  | 6/30/2017 |  | 6/30/2016 |  | 6/30/2015 |  | 6/30/2014 |  | 6/30/2013 |  | 6/30/2012 |  | 6/30/2011 |  | 6/30/2010 |  | 6/30/2009 |  | 6/30/2008 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Contractually Required Contributions (CRC) ${ }^{1}$ | \$ | 604,541 | \$ | 573,784 | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - |
| Actuarially Determined Contributions (ADC) ${ }^{2}$ |  | 656,655 |  | 623,404 |  | 454,010 |  | 439,067 |  | 534,200 |  | 508,000 |  | 439,300 |  | 627,800 |  | 620,200 |  | 453,100 |
| Employer Contributions PERS Plan 1 |  | 27,300 |  | 33,777 |  | 26,173 |  | 33,864 |  | 31,884 |  | 31,833 |  | 30,827 |  | 34,921 |  | 59,820 |  | 46,306 |
| Employer Plan 1 UAAL Contributions ${ }^{3}$ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| PERS Plan $2 / 3$ |  | 467,648 |  | 461,048 |  | 355,512 |  | 343,790 |  | 194,740 |  | 185,185 |  | 93,015 |  | 93,993 |  | 218,147 |  | 146,176 |
| SERS Plan $2 / 3$ |  | 97,441 |  | 85,835 |  | 68,719 |  | 60,431 |  | 33,726 |  | 34,810 |  | 19,092 |  | 22,429 |  | 41,260 |  | 25,711 |
| PSERS Plan 2 |  | 16,898 |  | 15,322 |  | 11,696 |  | 10,810 |  | 5,920 |  | 5,369 |  | 2,651 |  | 2,680 |  | 6,021 |  | 3,594 |
| Contributions in Relation to ADC |  | 609,287 |  | 595,982 |  | 462,100 |  | 448,895 |  | 266,270 |  | 257,197 |  | 145,585 |  | 154,023 |  | 325,248 |  | 221,787 |
| Contribution Deficiency (Excess) | \$ | 47,368 | \$ | 27,422 | \$ | $(8,090)$ | \$ | $(9,828)$ | \$ | 267,930 | \$ | 250,803 | \$ | 293,715 | \$ | 473,777 | \$ | 294,952 | \$ | 231,313 |
| Covered Payroll |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| PERS Plan 1 |  | 182,305 |  | 218,029 |  | 260,894 |  | 309,665 |  | 352,909 |  | 399,564 |  | 493,559 |  | 571,969 |  | 654,711 |  | 713,421 |
| PERS Plan $2 / 3$ |  | 9,856,106 |  | 9,323,463 |  | 8,876,898 |  | 8,607,757 |  | 8,265,361 |  | 8,125,656 |  | 8,139,901 |  | 8,151,255 |  | 8,108,034 |  | 7,697,892 |
| SERS Plan $2 / 3$ |  | 2,040,005 |  | 1,877,908 |  | 1,720,489 |  | 1,616,447 |  | 1,549,224 |  | 1,638,675 |  | 1,650,375 |  | 1,619,245 |  | 1,585,931 |  | 1,515,966 |
| PSERS Plan 2 |  | 357,285 |  | 324,850 |  | 293,007 |  | 270,102 |  | 249,022 |  | 236,495 |  | 232,044 |  | 232,826 |  | 222,044 |  | 178,767 |
| Covered-Employee Payroll ${ }^{4}$ |  | 12,435,701 |  | 11,744,250 |  | 11,151,288 |  | 10,803,971 |  | 10,416,516 |  | 10,400,390 |  | 10,515,879 |  | 10,575,295 |  | 10,570,720 |  | 10,106,046 |
| Contributions as a Percentage of Covered-Employee Payroll |  | 4.90\% |  | 5.07\% |  | 4.14\% |  | 4.15\% |  | 2.56\% |  | 2.47\% |  | 1.38\% |  | 1.46\% |  | 3.08\% |  | 2.19\% |

Portions of the above contributions were assessed on the covered payrolls of PERS Plan $2 / 3$, SERS Plan $2 / 3$ and PSERS Plan 2.
${ }^{1}$ See the "Notes to Required Supplementary Information" on page 99 for an explanation of how the CRC and ADC were calculated. The CRC was the same as the ADC in years when no data for the CRC is displayed.
${ }^{2}$ Prior to 2014, the annual required contribution (ARC) amounts were presented for the actuarially determined contributions. The ARC changes each year with the experience of the plans. Factors influencing the experience include changes in funding methods, assumptions, plan provisions, and economic and demographic gains and losses.
${ }^{3}$ DRS collects portions of the employer retirement contributions of PERS Plan $2 / 3$, SERS Plan $2 / 3$ and PSERS Plan 2 and applies them toward the Unfunded Actuarial Accrued Liability of PERS Plan 1 .
${ }^{4}$ "Covered-employee payroll" includes employee compensation, as defined by statute, that employers reported to DRS. Employer-reported employee compensation is also used to calculate retirement contributions due to the retirement systems. Total salary or wages employers pay to employees eligible for retirement-system coverage might not be reportable to DRS.

## Required Supplementary Information: Schedules of Employer Contributions (cont.)

## PERS Plan 2/3 <br> Dollars in Thousands

|  |  | 6/30/2017 |  | 6/30/2016 |  | 6/30/2015 |  | 6/30/2014 |  | 6/30/2013 |  | 6/30/2012 |  | 6/30/2011 |  | 6/30/2010 |  | 6/30/2009 |  | 6/30/2008 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Contractually Required Contributions (CRC) ${ }^{1}$ | \$ | 614,035 | \$ | 580,852 | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - |
| Actuarially Determined Contributions (ADC) ${ }^{\mathbf{2}}$ |  | 700,769 |  | 662,898 |  | 462,098 |  | 441,677 |  | 408,300 |  | 407,700 |  | 408,600 |  | 383,100 |  | 369,700 |  | 363,300 |
| Contributions in Relation to ADC |  | 621,927 |  | 563,328 |  | 446,127 |  | 430,345 |  | 389,020 |  | 385,253 |  | 328,258 |  | 327,460 |  | 439,744 |  | 318,740 |
| Contribution Deficiency (Excess) | \$ | 78,842 | \$ | 99,570 | \$ | 15,971 | \$ | 11,332 | \$ | 19,280 | \$ | 22,447 | \$ | 80,342 | \$ | 55,640 | \$ | $(70,044)$ | \$ | 44,560 |
| Covered-Employee Payroll ${ }^{3}$ |  | 9,856,106 |  | 9,323,463 |  | 8,876,898 |  | 8,607,757 |  | 8,265,361 |  | 8,125,656 |  | 8,139,901 |  | 8,151,255 |  | 8,108,034 |  | 7,697,892 |
| Contributions as a Percentage of Covered-Employee Payroll |  | 6.31\% |  | 6.04\% |  | 5.03\% |  | 5.00\% |  | 4.71\% |  | 4.74\% |  | 4.03\% |  | 4.02\% |  | 5.42\% |  | 4.14\% |


| SERS Plan 2/3 <br> Dollars in Thousands |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 6/30/2017 |  | 6/30/2016 |  | 6/30/2015 |  | 6/30/2014 |  | 6/30/2013 |  | 6/30/2012 |  | 6/30/2011 |  | 6/30/2010 |  | 6/30/2009 |  | 6/30/2008 |
| Contractually Required Contributions (CRC) ${ }^{1}$ | \$ | 135,252 | \$ | 124,505 | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - |
| Actuarially Determined Contributions (ADC) ${ }^{2}$ |  | 157,080 |  | 144,599 |  | 94,736 |  | 90,064 |  | 86,600 |  | 85,200 |  | 88,600 |  | 82,300 |  | 71,500 |  | 75,800 |
| Contributions in Relation to ADC |  | 134,727 |  | 115,480 |  | 97,386 |  | 88,783 |  | 78,400 |  | 74,640 |  | 62,316 |  | 62,090 |  | 63,526 |  | 52,139 |
| Contribution Deficiency (Excess) | \$ | 22,353 | \$ | 29,119 | \$ | $(2,650)$ | \$ | 1,281 | \$ | 8,200 | \$ | 10,560 | \$ | 26,284 | \$ | 20,210 | \$ | 7,974 | \$ | 23,661 |
| Covered-Employee Payroll ${ }^{3}$ |  | 2,040,005 |  | 1,877,908 |  | 1,720,489 |  | 1,616,447 |  | 1,549,224 |  | 1,638,675 |  | 1,650,375 |  | 1,619,245 |  | 1,585,931 |  | 1,515,966 |
| Contributions as a Percentage of Covered-Employee Payroll |  | 6.60\% |  | 6.15\% |  | 5.66\% |  | 5.49\% |  | 5.06\% |  | 4.55\% |  | 3.78\% |  | 3.83\% |  | 4.01\% |  | 3.44\% |

${ }^{1}$ See the "Notes to Required Supplementary Information" on page 99 for an explanation of how the CRC and ADC were calculated. The CRC was the same as the ADC in years when no data for the CRC is displayed.
${ }^{2}$ Prior to 2014, the annual required contribution (ARC) amounts re presented for the actuarially determined contributions. The ARC changes each year with the experience of the plans. Factors influencing the experience include changes in funding methods, assumptions, plan provisions, and economic and demographic gains and losses.

3 "Covered-employee payroll" includes employee compensation, as defined by statute, that employers reported to DRS. Employer-reported employee compensation is also used to calculate retirement contributions due to the retirement systems. Total salary or wages employers pay to employees eligible for retirement-system coverage might not be reportable to DRS.

## Required Supplementary Information: Schedules of Employer Contributions (cont.)

## PSERS Plan 2

Dollars in Thousands

|  |  | 6/30/2017 |  | 6/30/2016 |  | 6/30/2015 |  | 6/30/2014 |  | 6/30/2013 |  | 6/30/2012 |  | 6/30/2011 |  | 6/30/2010 |  | 6/30/2009 |  | 6/30/2008 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Contractually Required Contributions (CRC) ${ }^{1}$ | \$ | 23,545 | \$ | 21,408 | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - |
| Actuarially Determined Contributions (ADC) ${ }^{2}$ |  | 24,617 |  | 22,382 |  | 18,545 |  | 17,053 |  | 15,100 |  | 14,700 |  | 14,700 |  | 14,800 |  | 14,300 |  | 12,400 |
| Contributions in Relation to ADC |  | 23,238 |  | 20,058 |  | 18,704 |  | 17,124 |  | 15,650 |  | 15,285 |  | 15,591 |  | 15,238 |  | 14,510 |  | 11,700 |
| Contribution Deficiency (Excess) | \$ | 1,379 | \$ | 2,324 | \$ | (159) | \$ | (71) | \$ | (550) | \$ | (585) | \$ | (891) | \$ | (438) | \$ | (210) | \$ | 700 |
| Covered-Employee Payroll ${ }^{3}$ |  | 357,285 |  | 324,850 |  | 293,007 |  | 270,102 |  | 249,022 |  | 236,495 |  | 232,044 |  | 232,826 |  | 222,044 |  | 178,767 |
| Contributions as a Percentage of Covered-Employee Payroll |  | 6.50\% |  | 6.17\% |  | 6.38\% |  | 6.34\% |  | 6.28\% |  | 6.46\% |  | 6.72\% |  | 6.54\% |  | 6.53\% |  | 6.54\% |

${ }^{1}$ See the "Notes to Required Supplementary Information" on page 99 for an explanation of how the CRC and ADC were calculated. The CRC was the same as the ADC in years when no data for the CRC is displayed.
 funding methods, assumptions, plan provisions, and economic and demographic gains and losses.
3 "Covered-employee payroll" includes employee compensation, as defined by statute, that employers reported to DRS. Employer-reported employee compensation is also used to calculate retirement contributions due to the retirement systems. Total salary or wages employers pay to employees eligible for retirement-system coverage might not be reportable to DRS.

## Required Supplementary Information: Schedules of Employer Contributions (cont.)



Portions of the above contributions were assessed on the covered payrolls of TRS Plan 2/3.
${ }^{1}$ See the "Notes to Required Supplementary Information" on page 99 for an explanation of how the CRC and ADC were calculated. The CRC was the same as the ADC in years when no data for the CRC is displayed.
 funding methods, assumptions, plan provisions, and economic and demographic gains and losses.
${ }^{3}$ DRS collects a portion of the employer retirement contributions of TRS Plan $2 / 3$ and applies it toward the Unfunded Actuarial Accrued Liability of TRS Plan 1.
4 "Covered-employee payroll" includes employee compensation, as defined by statute, that employers reported to DRS. Employer-reported employee compensation is also used to calculate retirement contributions due to the retirement systems. Total salary or wages employers pay to employees eligible for retirement-system coverage might not be reportable to DRS.

## Required Supplementary Information: Schedules of Employer Contributions (cont.)

## TRS Plan 2/3

Dollars in Thousands

|  |  | 6/30/2017 |  | 6/30/2016 |  | 6/30/2015 |  | 6/30/2014 |  | 6/30/2013 |  | 6/30/2012 |  | 6/30/2011 |  | 6/30/2010 |  | 6/30/2009 |  | 6/30/2008 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Contractually Required Contributions (CRC) ${ }^{1}$ | \$ | 367,343 | \$ | 339,634 | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - |
| Actuarially Determined Contributions (ADC) ${ }^{2}$ |  | 413,260 |  | 382,088 |  | 269,160 |  | 255,277 |  | 231,600 |  | 232,200 |  | 232,300 |  | 221,100 |  | 186,900 |  | 208,900 |
| Contributions in Relation to ADC |  | 364,106 |  | 316,022 |  | 267,038 |  | 249,341 |  | 228,974 |  | 213,852 |  | 168,264 |  | 164,959 |  | 160,793 |  | 109,523 |
| Contribution Deficiency (Excess) | \$ | 49,154 | \$ | 66,066 | \$ | 2,122 | \$ | 5,936 | \$ | 2,626 | \$ | 18,348 | \$ | 64,036 | \$ | 56,141 | \$ | 26,107 | \$ | 99,377 |
| Covered-Employee Payroll ${ }^{3}$ |  | 5,466,408 |  | 5,054,070 |  | 4,681,511 |  | 4,436,592 |  | 4,203,893 |  | 4,162,779 |  | 4,171,447 |  | 4,056,271 |  | 3,950,376 |  | 3,664,646 |
| Contributions as a Percentage of Covered-Employee Payroll |  | 6.66\% |  | 6.25\% |  | 5.70\% |  | 5.62\% |  | 5.45\% |  | 5.14\% |  | 4.03\% |  | 4.07\% |  | 4.07\% |  | 2.99\% |

## LEOFF Plan 1

## Dollars in Thousands

|  |  | 6/30/2017 |  | 6/30/2016 |  | 6/30/2015 |  | 6/30/2014 |  | 6/30/2013 |  | 6/30/2012 |  | 6/30/2011 |  | 6/30/2010 |  | 6/30/2009 |  | 6/30/2008 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Contractually Required Contributions (CRC) ${ }^{1}$ | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - |
| Actuarially Determined Contributions (ADC) ${ }^{2}$ |  | - |  | - |  | - |  | - |  | - |  | - |  | - |  | - |  | - |  | - |
| Contributions in Relation to ADC |  | - |  | - |  | 60 |  | 98 |  | 555 |  | 2 |  | 3 |  | 49 |  | 216 |  | 8 |
| Contribution Deficiency (Excess) | \$ | - | \$ | - | \$ | (60) | \$ | (98) | \$ | (555) | \$ | (2) | \$ | (3) | \$ | (49) | \$ | (216) | \$ | (8) |
| Covered-Employee Payroll ${ }^{3}$ |  | 5,438 |  | 7,932 |  | 10,583 |  | 13,888 |  | 16,521 |  | 21,456 |  | 27,171 |  | 32,110 |  | 41,040 |  | 41,384 |
| Contributions as a Percentage of Covered-Employee Payroll |  | 0.00\% |  | 0.00\% |  | 0.57\% |  | 0.71\% |  | 3.36\% |  | 0.01\% |  | 0.01\% |  | 0.15\% |  | 0.53\% |  | 0.02\% |

${ }^{1}$ See the "Notes to Required Supplementary Information" on page 99 for an explanation of how the CRC and ADC were calculated. The CRC was the same as the ADC in years when no data for the CRC is displayed.
 funding methods, assumptions, plan provisions, and economic and demographic gains and losses.
${ }^{3}$ "Covered-employee payroll" includes employee compensation, as defined by statute, that employers reported to DRS. Employer-reported employee compensation is also used to calculate retirement contributions due to the retirement systems. Total salary or wages employers pay to employees eligible for retirement-system coverage might not be reportable to DRS.

Required Supplementary Information: Schedules of Employer Contributions (cont.)

## LEOFF Plan 2

Dollars in Thousands

|  |  | 6/30/2017 |  | 6/30/2016 |  | 6/30/2015 |  | 6/30/2014 |  | 6/30/2013 |  | 6/30/2012 |  | 6/30/2011 |  | 6/30/2010 |  | 6/30/2009 |  | 6/30/2008 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Contractually Required Contributions (CRC) ${ }^{1}$ | \$ | 158,332 | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - |
| Actuarially Determined Contributions (ADC) ${ }^{2}$ |  | 150,049 |  | 151,718 |  | 147,438 |  | 141,696 |  | 94,700 |  | 97,300 |  | 84,000 |  | 112,200 |  | 105,300 |  | 102,100 |
| Contributions in Relation to ADC |  | 158,075 |  | 152,424 |  | 147,461 |  | 141,082 |  | 136,643 |  | 133,250 |  | 131,757 |  | 128,374 |  | 128,986 |  | 119,290 |
| Contribution Deficiency (Excess) | \$ | $(8,026)$ | \$ | (706) | \$ | (23) | \$ | 614 | \$ | $(41,943)$ | \$ | $(35,950)$ | \$ | $(47,757)$ | \$ | $(16,174)$ | \$ | $(23,686)$ | \$ | $(17,190)$ |
| Covered-Employee Payroll ${ }^{3}$ |  | 1,882,667 |  | 1,804,024 |  | 1,744,180 |  | 1,674,432 |  | 1,605,364 |  | 1,569,051 |  | 1,542,269 |  | 1,515,925 |  | 1,455,623 |  | 1,343,558 |
| Contributions as a Percentage of Covered-Employee Payroll |  | 8.40\% |  | 8.45\% |  | 8.45\% |  | 8.43\% |  | 8.51\% |  | 8.49\% |  | 8.54\% |  | 8.47\% |  | 8.86\% |  | 8.88\% |

## WSPRS Plan 1/2 <br> Dollars in Thousands

|  |  | 6/30/2017 |  | 6/30/2016 |  | 6/30/2015 |  | 6/30/2014 |  | 6/30/2013 |  | 6/30/2012 |  | 6/30/2011 |  | 6/30/2010 |  | 6/30/2009 |  | 6/30/2008 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Contractually Required Contributions (CRC) ${ }^{1}$ | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - |
| Actuarially Determined Contributions (ADC) ${ }^{2}$ |  | 8,179 |  | 7,618 |  | 6,810 |  | 6,677 |  | 2,500 |  | 2,900 |  | 2,300 |  | 6,600 |  | 5,000 |  | 6,800 |
| Contributions in Relation to ADC |  | 7,587 |  | 7,044 |  | 6,679 |  | 6,587 |  | 6,478 |  | 6,454 |  | 5,251 |  | 5,271 |  | 6,371 |  | 6,064 |
| Contribution Deficiency (Excess) | \$ | 592 | \$ | 574 | \$ | 131 | \$ | 90 | \$ | $(3,978)$ | \$ | $(3,554)$ | \$ | $(2,951)$ | \$ | 1,329 | \$ | $(1,371)$ | \$ | 736 |
| Covered-Employee Payroll ${ }^{3}$ |  | 93,053 |  | 86,669 |  | 84,379 |  | 83,282 |  | 81,895 |  | 81,578 |  | 81,882 |  | 82,764 |  | 82,719 |  | 78,781 |
| Contributions as a Percentage of Covered-Employee Payroll |  | 8.15\% |  | 8.13\% |  | 7.92\% |  | 7.91\% |  | 7.91\% |  | 7.91\% |  | 6.41\% |  | 6.37\% |  | 7.70\% |  | 7.70\% |

${ }^{1}$ See the "Notes to Required Supplementary Information" on page 99 for an explanation of how the CRC and ADC were calculated. The CRC was the same as the ADC in years when no data for the CRC is displayed.
${ }^{2}$ Prior to 2014, the annual required contribution (ARC) amounts were presented for the actuarially determined contributions. The ARC changes each year with the experience of the plans. Factors influencing the experience include changes in funding methods, assumptions, plan provisions, and economic and demographic gains and losses.
3 "Covered-employee payroll" includes employee compensation, as defined by statute, that employers reported to DRS. Employer-reported employee compensation is also used to calculate retirement contributions due to the retirement systems. Total salary or wages employers pay to employees eligible for retirement-system coverage might not be reportable to DRS.

## Required Supplementary Information: Schedules of Employer Contributions (cont.)

## JRS

Dollars in Thousands

|  |  | 6/30/2017 |  | 6/30/2016 |  | 6/30/2015 |  | 6/30/2014 |  | 6/30/2013 |  | 6/30/2012 |  | 6/30/2011 |  | 6/30/2010 |  | 6/30/2009 |  | 6/30/2008 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Contractually Required Contributions (CRC) ${ }^{1}$ | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - |
| Actuarially Determined Contributions (ADC) ${ }^{2}$ |  | 8,761 |  | 8,999 |  | 9,132 |  | 9,205 |  | 21,700 |  | 22,600 |  | 18,600 |  | 20,400 |  | 21,200 |  | 26,600 |
| Contributions in Relation to ADC |  | 9,300 |  | 9,500 |  | 10,600 |  | 10,600 |  | 10,112 |  | 8,131 |  | 10,906 |  | 11,649 |  | 10,305 |  | 9,712 |
| Contribution Deficiency (Excess) | \$ | (539) | \$ | (501) | \$ | $(1,468)$ | \$ | $(1,395)$ | \$ | 11,588 | \$ | 14,469 | \$ | 7,694 | \$ | 8,751 | \$ | 10,895 | \$ | 16,888 |
| Covered-Employee Payroll ${ }^{3}$ |  | - |  | - |  | - |  | - |  | 160 |  | 407 |  | 611 |  | 1,053 |  | 1,394 |  | 1,496 |
| Contributions as a Percentage of Covered-Employee Payroll |  | n/a |  | n/a |  | n/a |  | n/a |  | 6,320.00\% |  | 1,997.79\% |  | 1,784.94\% |  | 1,106.27\% |  | 739.24\% |  | 649.20\% |

## JRF <br> Dollars in Thousands

|  |  | 2017 |  | 6/30/2016 |  | 6/30/2015 |  | 6/30/2014 |  | 6/30/2013 |  | 6/30/2012 |  | 6/30/2011 |  | 6/30/2010 |  | 6/30/2009 |  | 6/30/2008 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Contractually Required Contributions (CRC) ${ }^{1}$ | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - |
| Actuarially Determined Contributions (ADC) ${ }^{2}$ |  | 439 |  | 444 |  | 539 |  | 425 |  | 400 |  | 300 |  | 100 |  | - |  | - |  | - |
| Contributions in Relation to ADC |  | 499 |  | 501 |  | - |  | - |  | - |  | - |  | - |  | - |  | - |  | 300 |
| Contribution Deficiency (Excess) | \$ | (60) | \$ | (57) | \$ | 539 | \$ | 425 | \$ | 400 | \$ | 300 | \$ | 100 | \$ | - | \$ | - | \$ | (300) |
| Covered-Employee Payroll ${ }^{3}$ |  | - |  | - |  | - |  | - |  | - |  | - |  | - |  | - |  | - |  | - |
| Contributions as a Percentage of Covered-Employee Payroll |  | n/a |  | n/a |  | n/a |  | n/a |  | n/a |  | n/a |  | n/a |  | n/a |  | n/a |  | n/a |

${ }^{1}$ See the "Notes to Required Supplementary Information" on page 99 for an explanation of how the CRC and ADC were calculated. The CRC was the same as the ADC in years when no data for the CRC is displayed.
${ }^{2}$ Prior to 2014, the annual required contribution (ARC) amounts were presented for the actuarially determined contributions. The ARC changes each year with the experience of the plans. Factors influencing the experience include changes in funding methods, assumptions, plan provisions, and economic and demographic gains and losses.
${ }^{3}$ "Covered-employee payroll" includes employee compensation, as defined by statute, that employers reported to DRS. Employer-reported employee compensation is also used to calculate retirement contributions due to the retirement systems. Total salary or wages employers pay to employees eligible for retirement-system coverage might not be reportable to DRS.

## Required Supplementary Information: Schedule of Investment Returns

| Annual Money-Weighted Rates of Return <br> Net of Investment Expenses <br> Plan |  |  |  |  |
| :--- | ---: | ---: | ---: | ---: |
| PERS Plan 1 | $\mathbf{6 / 2 0 1 7}$ | $\mathbf{6 / 3 0 / 2 0 1 6}$ | $\mathbf{6 / 3 0 / 2 0 1 5}$ | $\mathbf{6 / 3 0 / 2 0 1 4}$ |
| PERS Plan 2/3 | $13.84 \%$ | $2.19 \%$ | $4.45 \%$ | $18.76 \%$ |
| SERS Plan 2/3 | $14.11 \%$ | $2.47 \%$ | $4.63 \%$ | $18.94 \%$ |
| PSERS Plan 2 | $14.13 \%$ | $2.49 \%$ | $4.64 \%$ | $18.96 \%$ |
| TRS Plan 1 | $14.14 \%$ | $2.75 \%$ | $4.76 \%$ | $18.91 \%$ |
| TRS Plan 2/3 | $14.45 \%$ | $2.09 \%$ | $4.41 \%$ | $18.73 \%$ |
| LEOFF Plan 1 | $14.10 \%$ | $2.51 \%$ | $4.65 \%$ | $18.96 \%$ |
| LEOFF Plan 2 | $13.95 \%$ | $2.25 \%$ | $4.51 \%$ | $18.82 \%$ |
| WSPRS Plan 1/2 | $14.14 \%$ | $2.48 \%$ | $4.64 \%$ | $18.93 \%$ |
| JRS | $14.03 \%$ | $2.34 \%$ | $4.56 \%$ | $18.87 \%$ |
| JRF | $0.71 \%$ | $0.62 \%$ | $0.40 \%$ | $0.16 \%$ |

This schedule will be built prospectively until it contains 10 years of data.

## Notes to Required Supplementary Information

## for the Year Ended June 30, 2017

## Methods and Assumptions Used in Calculations of Actuarially Determined Contributions for PERS, PSERS, SERS, TRS, LEOFF and WSPRS: The Office of the State Actuary (OSA) calculates the actuarially determined contributions (ADC) based on the results of an actuarial valuation consistent with the state's funding policy defined in Chapter 41.45 RCW.

Consistent with the state's contribution-rate adoption process, the results of an actuarial valuation with an odd-numbered year valuation date determine the ADC for the biennium that ensues two years later. For example, the actuarial valuation with a June 30 , 2015, valuation date, completed in the fall of 2016, determines the ADC for the period beginning July 1, 2017, and ending June 30, 2019.

## Methods and Assumptions Used in Calculations of Actuarially Determined Contributions for JRS and JRF:

OSA calculates the actuarially determined contributions (ADC) based on the results of an actuarial valuation and sets it equal to the expected benefit payments from the plan. Consistent with the state's funding policy defined in Chapters 2.10.90 and 2.12.60 RCW, the Legislature makes biennial appropriations to ensure the fund is solvent so it can make the necessary benefit payments.

## Additional Considerations on ADC for All Plans:

OSA calculates the ADC consistent with the methods described above. Adopted contribution rates could be different pending the actions of the governing bodies. For instance, for the period beginning July 1, 2015, and ending June 30, 2017, the contribution rates the Pension Funding Council adopted, which the Legislature did not change, reflect a phasing in of the increase to contribution rates that resulted from a change to the mortality assumption. The increase is expected to be phased in over three biennia for PERS Plans 1, 2 and 3; TRS Plans 1, 2 and 3; SERS Plans 2 and 3; PSERS Plan 2 ; and WSPRS Plans 1 and 2.

## CRC for All Cost-Sharing Plans (All Plans Other Than

 WSPRS 1/2, JRS and JRF): For cost-sharing plans, OSA calculates the contractually required contributions (CRC) using the same assumptions and methods as the ADC except the CRC reflect the adopted contribution rates for the time period shown, which might differ from the contribution rates produced for the ADC.Additional plan-specific actuarial method and assumption information is located in Note 2, Section B, of the Financial Section.

## Supporting Schedules

## Schedule of Administrative Expenses

For the Year Ended June 30, 2017 - Dollars in Thousands

|  |  | Retirement Pension Trust Funds | Deferred <br> Compensation Pension Trust Fund |  |  | $\begin{array}{r} \text { Totals } \\ \text { June 30, } 2017 \end{array}$ | $\begin{array}{r} \text { Totals } \\ \text { June } \mathbf{3 0 ,} 2016 \end{array}$ |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Current Personnel |  |  |  |  |  |  |  |  |
| Salaries and Wages | \$ | 13,519 | \$ | 1,061 | \$ | 14,580 | \$ | 14,061 |
| Employee Benefits |  | 4,927 |  | 392 |  | 5,319 |  | 5,073 |
| Personal Service Contracts |  | 7,234 |  | 375 |  | 7,609 |  | 3,859 |
| Total Personnel Expenses |  | 25,680 |  | 1,828 |  | 27,508 |  | 22,993 |
| Goods and Services |  |  |  |  |  |  |  |  |
| Actuary Services |  | 2,309 |  | - |  | 2,309 |  | 1,739 |
| Archives and Records Management |  | 32 |  | 2 |  | 34 |  | 35 |
| Attorney General Services |  | 139 |  | 17 |  | 156 |  | 146 |
| Audit Services |  | 308 |  | 5 |  | 313 |  | 479 |
| Bad Debts Expense |  | 26 |  | - |  | 26 |  | 46 |
| Collections |  | 54 |  | - |  | 54 |  | 51 |
| Communications |  | 417 |  | 13 |  | 430 |  | 372 |
| Data Processing Services |  | 2,161 |  | 123 |  | 2,284 |  | 2,315 |
| Employee Professional Development and Training |  | 118 |  | 4 |  | 122 |  | 157 |
| Facilities and Services |  | 332 |  | 7 |  | 339 |  | 340 |
| Insurance |  | 11 |  | 1 |  | 12 |  | 11 |
| Legal Fees |  | 1,619 |  | 2 |  | 1,621 |  | 1,724 |
| LEOFF 2 Board Governance |  | 1,235 |  | - |  | 1,235 |  | 1,142 |
| Medical Consultant Services |  | 43 |  | - |  | 43 |  | 36 |
| Other Contractual Services |  | 264 |  | 10 |  | 274 |  | 940 |
| Other Goods and Services |  | 25 |  | - |  | 25 |  | 12 |
| Personnel Services |  | 37 |  | 3 |  | 40 |  | 44 |
| Printing and Reproduction |  | 125 |  | 4 |  | 129 |  | 187 |
| Rental and Leases |  | 1,455 |  | 101 |  | 1,556 |  | 1,491 |
| Repairs and Alterations |  | 156 |  | 9 |  | 165 |  | 138 |
| Subscriptions |  | 40 |  | - |  | 40 |  | 31 |
| Supplies and Materials |  | 44 |  | 2 |  | 46 |  | 46 |
| Utilities |  | 133 |  | 8 |  | 141 |  | 126 |
| Total Goods and Services |  | 11,083 |  | 311 |  | 11,394 |  | 11,608 |
| Miscellaneous Expenses |  |  |  |  |  |  |  |  |
| Noncapitalized Equipment |  | 879 |  | 40 |  | 919 |  | 705 |
| Travel |  | 97 |  | 29 |  | 126 |  | 158 |
| Total Miscellaneous Expenses |  | 976 |  | 69 |  | 1,045 |  | 863 |
| Total Current Expenses |  | 37,739 |  | 2,208 |  | 39,947 |  | 35,464 |
| Capital Outlays |  |  |  |  |  |  |  |  |
| Furnishings, Equipment and Software |  | 55 |  | - |  | 55 |  | 66 |
| Total Capital Outlays |  | 55 |  | - |  | 55 |  | 66 |
| Depreciation and Loss - Capital Assets |  | 69 |  | - |  | 69 |  | 79 |
| Total Administrative Expenses | \$ | 37,863 | \$ | 2,208 | \$ | 40,071 | \$ | 35,609 |

Supporting Schedules (cont.)

## Schedule of Investment Expenses - Pension Trust Funds <br> For the Year Ended June 30, 2017 - Dollars in Thousands

|  | Fees Paid |  | Netted Fees ${ }^{1}$ |  | Total Fees and Expenses |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Equity Securities |  |  |  |  |  |  |
| Public Equity Active Management | \$ | 57,335 | \$ | 412 | \$ | 57,747 |
| Public Equity Passive Management |  | 2,446 |  | 920 |  | 3,366 |
| Alternative Investments |  |  |  |  |  |  |
| Private Equity |  | 204,920 |  | 2,149 |  | 207,069 |
| Real Estate |  | 45,591 |  | 10,585 |  | 56,176 |
| Tangible Assets |  | 53,491 |  | 9,135 |  | 62,626 |
| Cash Management |  | 2,345 |  | - |  | 2,345 |
| Debt Securities |  | - |  | - |  | - |
| Other Fees |  |  |  |  |  |  |
| Consultants and Accounting |  | 908 |  | - |  | 908 |
| Legal Fees |  | 994 |  | - |  | 994 |
| Research Services |  | 2,275 |  | - |  | 2,275 |
| Securities Lending Rebates and Fees |  | 6,173 |  | - |  | 6,173 |
| Miscellaneous Fees |  | 257 |  | - |  | 257 |
| DCP Management Fees |  | 5,023 |  | - |  | 5,023 |
| JRA Management Fees |  | 14 |  | - |  | 14 |
| PERS Plan 3 Management Fees |  | 1,204 |  | - |  | 1,204 |
| SERS Plan 3 Management Fees |  | 509 |  | - |  | 509 |
| TRS Plan 3 Management Fees |  | 3,346 |  | - |  | 3,346 |
| WSIB Operating Costs |  | 15,632 |  | - |  | 15,632 |
| Total Investment Expenses | \$ | 402,463 | \$ | 23,201 | \$ | 425,664 |

${ }^{1}$ Netted fees are included in unrealized gains (losses) in the accompanying financial statements.

| Schedule of Payments to Consultants <br> For the Year Ended June 30, 2017 - Dollars in Thousands |  |  |
| :---: | :---: | :---: |
|  | Commission/Fee |  |
| Computer/Technology |  |  |
| Aetea Information Technology Inc. | \$ | 188 |
| Bizagi |  | 3,463 |
| Elyon Enterprise Strategies Inc. |  | 41 |
| Martin Analysis \& Programming Inc. |  | 553 |
| Total Computer/Technology |  | 4,245 |
| Legal |  |  |
| Freimund Jackson Tardif \& Benedict Garratt PLLC |  | 157 |
| Gallitano \& O'Connor LLP |  | 17 |
| Ice Miller LLP |  | 37 |
| Stoel Rives LLP |  | 9 |
| Total Legal |  | 220 |
| Management |  |  |
| CEM Benchmarking Inc. |  | 45 |
| Charles W. Cammack Associates Inc. |  | 56 |
| CliftonLarsonAllen LLP |  | 233 |
| Milliman Inc. |  | 145 |
| The Caughlin Group |  | 10 |
| Total Management |  | 489 |
| Recordkeeping |  |  |
| Great-West Life \& Annuity |  | 3,290 |
| Total Recordkeeping |  | 3,290 |
| Total Payments to Consultants | \$ | 8,244 |

For fees paid to investment professionals, refer to the Investment Section of this report.

## INVESTMENTS by the Numbers

## Commingled Trust Fund (CTF) Diversification

This chart illustrates where the Washington State Investment Board (WSIB) invests monies pooled in the CTF. As of June 30, 2017, DRS' investment in the CTF was valued at $\$ 93.3$ billion.

across different market conditions around the globe.

## $\$ 93.3$ ninivesiments

## 13.4\% <br> CTF RETURN <br> IN FISCAL YEAR 2017 <br> 99.7\% <br> OF CTF COMPOSED OF <br> RETIREMENT <br> FUNDS FROM DRS SYSTEMS

## Sources of Pension Dollars

For the next 40 years, the WSIB is expected to earn through its investments 75 cents of every pension dollar retirees will receive, according to 2015 Office of the State Actuary projections.


> Investment Section

## Report on Investment Activity

## Prepared by the Washington State Investment Board

## Overview

The Washington State Investment Board (WSIB) manages retirement fund assets to maximize return at a prudent level of risk (Chapter 43.33A. 110 RCW). Investment decisions are made within the framework of a Strategic Asset Allocation Policy and a series of written WSIB-adopted investment policies for the various asset classes in which the WSIB invests.

The retirement funds, collectively called the Commingled Trust Fund (CTF), increased in value by $\$ 10.6$ billion to $\$ 93.3$ billion during fiscal year 2017. The CTF return was $13.4 \%$ for the fiscal year.

Established on July 1, 1992, the CTF is a diversified pool of investments that is invested in fixed income,
public equity, private equity, real estate and tangible assets. Additional general information about the CTF includes:

- Participant Concentration: The DRS retirement funds make up $99.7 \%$ of the CTF. The chart below illustrates their respective concentrations.
- External Managers: The WSIB engages about 145 partnerships and external managers to assist in the management of the CTF's investments.
- Risk: The various risks of the CTF portfolio include interest rate risk, credit risk, concentration risk and foreign currency risk, as described in Note 1 of the Financial Section of this report. The WSIB has not created a total fund risk profile for the CTF.


## Makeup of the Commingled Trust Fund (CTF)

This chart illustrates retirement fund participation as of June 30, 2017. The DRS retirement funds comprise 99.7\% of the CTF.


## Report on Investment Activity (cont.)

- Leverage: The WSIB does not leverage the CTF porffolio as a whole. Individual securities within the CTF do have leverage; however, the WSIB does not capture this information on a total basis.
- Earnings: The CTF does not distribute earnings directly to the owner funds. The retirement fund plans are allowed to purchase or sell units in the pool, based on the fair value of the underlying assets, on the first business day of each month. The net asset value includes interest and dividend income, which is recognized on a trade-date basis, and purchases and sales of investments, which are recorded on a trade-date basis.
- Expense: The CTF's expense ratio for the year ended June 30, 2017, was 0.42952\%.
- Yield: The CTF's fixed income porffolio has a yield of $3.27 \%$.
- Weighted Average Maturity: The CTF fixed income portfolio has a weighted average maturity of 7.6 years. Additional maturity information is available in Note 1 of the Financial Section of this report.


## Basis of Presentation of Investment Data

Investments are reported at fair value. Unrealized gains and losses are included as investment income.

The net assets of the retirement funds are valued on a monthly basis using publicly traded securities, limited partnerships, private equity limited partnerships and real estate limited partnerships.

## Publicly Traded Securities (Corporate Stock, Commingled Funds, Investment Derivatives and Fixed Income):

Fair values are based on published market prices, quotations from national security exchanges and security pricing services as of each month-end closing of the New York Stock Exchange.

Limited Partnerships: The fair value of investments that are organized as limited partnerships and have no readily ascertainable fair value (such as private equity, real estate and tangible assets) has been determined by management. Those determinations are based on the individual investment's capital
account balance, reported at fair value by the general partner, at the closest available reporting period, adjusted for subsequent contributions, distributions, management fees, changes in value of foreign currency and published market prices for certain securities. Independent auditors audit the limited partnerships' annual financial statements.

Private Equity Limited Partnerships: The fair value of individual capital account balances is based on the valuations private equity partnerships report using the following methodologies to value the underlying porffolio companies:

- Valuations of publicly traded poriffolio companies are based on active exchanges using quoted market prices as of the close of trading for each month-end.
- When a porifolio company investment does not have a readily available market price but has a return that is determined by reference to an asset for which a market price is readily available, valuations are based on the closing market price of the reference asset on the valuation date, adjusted for factors that affect the fair value of the investment held.
- When the portfolio company investments are private holdings and are not traded on active security exchanges, valuation methodologies used consist primarily of income and market approaches. The income approach involves a discounted cash-flow analysis based on portfolio companies' projections. The market approach involves valuing a company at a multiple of a specified financial measure (generally EBITDA, or earnings before interest, taxes, depreciation and amortization) based on multiples at which comparable companies trade.

Real Estate Limited Partnerships: Real estate partnerships provide quarterly valuations, based on the most recent capital account balance, to WSIB management. Individual properties are valued by the partnerships at least annually and are adjusted as frequently as quarterly if material market or operational changes have occurred.

Properties are generally externally valued every one

## Report on Investment Activity (cont.)

to five years, depending on the partnership. Structured finance investments receive quarterly value adjustments by the partners, generally applying the assumption that all such positions will be held to maturity.

Annual audits of most partnerships include a review of compliance with the partnership's valuation policies.

Interest and dividend income is recognized when earned. Capital gains and losses are recognized on a trade-date basis. Purchases and sales of investments are also recorded on a trade-date basis. The investment results reported for these asset classes in the Investment Section reflect these practices.

## Performance

The chart below shows the time-weighted rates of return for the CTF on a total fund basis as well as by asset class. Appropriate benchmark returns are provided for comparison purposes.

| Returns for the CTF Based on Total Fund and Asset Class - Periods Ending June 30, 2017 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | 1-Year | 3-Year | 5-Year | 10-Year |
| Total Fund | 13.44\% | 6.91\% | 9.95\% | 5.47\% |
| Passive Benchmark | 13.38\% | 4.56\% | 8.54\% | 4.61\% |
| Fixed Income | 2.42\% | 2.48\% | 2.83\% | 5.35\% |
| Barclays Capital Universal | 0.91\% | 2.76\% | 2.73\% | 4.73\% |
| Tangible | 16.27\% | 6.14\% | 4.29\% | n/a |
| CPI Lagged One Quarter + 400 bp | 6.38\% | 5.09\% | 5.27\% | n/a |
| Real Estate | 10.12\% | 11.60\% | 13.11\% | 6.11\% |
| 8\% Return Over Rolling 10 Years | n/a | n/a | n/a | 8.00\% |
| NCREIF Lagged One Quarter (for Comparison Purposes) | 7.27\% | 10.58\% | 10.69\% | 6.72\% |
| Public Equity | 18.95\% | 5.50\% | 11.44\% | 4.19\% |
| Dow Jones Wilshire Global Index | 19.39\% | 5.20\% | 11.09\% | 4.25\% |
| Private Equity | 16.81\% | 10.80\% | 13.14\% | 7.90\% |
| Russell 3000 Lagged One Quarter + 300 bp | 18.74\% | 8.40\% | 11.89\% | 7.09\% |
| Innovation | (11.33)\% | (8.88)\% | 6.53\% | 0.20\% |
| Custom Benchmark | 5.83\% | (2.79)\% | 0.82\% | (0.74)\% |
| Cash | 0.80\% | 0.40\% | 0.30\% | 0.75\% |
| 90-Day T-Bills | 0.50\% | 0.25\% | 0.19\% | 0.62\% |

Performance information is compiled by the custodian, State Street Bank. Performance numbers are reported
net of management fees and are prepared using a time-weighted rate of return based on the current market value.

## Asset Allocation

Investment performance is a result of two primary factors: individual asset selection and the allocation of the portfolio among asset classes (for example, stocks, fixed income and real estate). Studies suggest that more than $90 \%$ of investment performance can be explained by asset allocation decisions.

Accordingly, the WSIB sets a specific, long-term target asset mix and adopts tight ranges around those targets to control the overall risk and return of the CTF. On a daily basis, the WSIB reviews the asset allocation in relation to the established ranges. Its staff shifts assets whenever the allocation range for an asset exceeds the approved range or when cash is needed elsewhere.

The WSIB reviews changes to the overall asset mix every three to four years.

The chart below shows the CTF's asset allocation as of June 30, 2017, as well as the long-term target allocations.

| Current Asset Allocation and Long-Term |  |  |
| :--- | ---: | ---: |
| Target Allocations <br> - As of June 30, 2017 |  |  |
| Asset Type | Target Allocation | Actual Allocation |
| Fixed Income | $20.00 \%$ | $19.31 \%$ |
| Tangible Assets | $5.00 \%$ | $3.81 \%$ |
| Real Estate | $15.00 \%$ | $16.99 \%$ |
| Public Equity | $37.00 \%$ | $39.38 \%$ |
| Private Equity | $23.00 \%$ | $20.40 \%$ |
| Innovation | $0.00 \%$ | $0.03 \%$ |
| Cash | $0.00 \%$ | $0.08 \%$ |
| Total | $\mathbf{1 0 0 . 0 0 \%}$ | $\mathbf{1 0 0 . 0 0 \%}$ |

## Public Equity

The public equity program uses a global benchmark, the Morgan Stanley All Country World with USA Gross Investable Market Index, reflecting the globalization of capital markets. In a world in which American companies like Coca-Cola get most of their revenue from overseas and many so-called foreign companies serve mainly the U.S., distinctions between "U.S.

## Report on Investment Activity (cont.)

stocks" and "international stocks" have become increasingly blurred. The WSIB believes the future success of the program depends on investment managers finding the most attractive opportunities wherever they are in the world.

Because U.S. equity markets are generally efficient and international equity markets are increasingly efficient, most of the WSIB's public equity investments are in lowcost, broad-based passive index funds.

The WSIB employs both passive U.S. equity and passive international equity to maintain policy weights in both areas. All the global equity mandates in which investment firms can pick the most attractive stocks wherever they are in the world (U.S. or international) and all the emerging markets equity mandates are actively managed.

Retirement Funds' 10 Largest Public Equities As of June 30, 2017

|  | Holdings |  | Exposure by Country |
| :--- | ---: | :--- | ---: |
| Apple Inc. | $1.62 \%$ | United States | $55.80 \%$ |
| Alphabet Inc. | $1.36 \%$ | Japan | $7.00 \%$ |
| Microsoft Corp. | $1.13 \%$ | United Kingdom | $6.51 \%$ |
| Facebook Inc. | $0.80 \%$ | France | $3.03 \%$ |
| Oracle Corp. | $0.77 \%$ | Switzerland | $2.92 \%$ |
| Wells Fargo \& Co. | $0.75 \%$ | Germany | $2.86 \%$ |
| Amazon.com Inc. | $0.74 \%$ | Canada | $2.09 \%$ |
| Nestle SA | $0.69 \%$ | China | $1.85 \%$ |
| Sanofi | $0.62 \%$ | Australia | $1.49 \%$ |
| Exxon Mobil Corp. | $0.62 \%$ | Hong Kong | $1.43 \%$ |

## U.S. Equity

The U.S. equity porffolio is structured to capture the returns of the broad U.S. equity market as measured by the Dow Jones Total Stock Market Index (TSMI). The index is composed of all U.S. domiciled common equities for which pricing information is readily available and currently represents about 5,000 companies. The portfolio is managed externally using a passive management strategy that tracks the index.

## Non-U.S Equity

The non-U.S. equity portfolio is benchmarked to a broad non-U.S. equity benchmark, currently the MSCl All Country World ex U.S. Investable Market Index.

Approximately $34 \%$ of the public equity porffolio is invested in non-U.S. markets, $74 \%$ of which is invested in developed markets with the remaining portion invested in the emerging markets. Portfolios are managed by external managers employing primarily a passive approach in developed markets and solely active strategies in emerging markets.

## Global Equity

The global equity porffolio is benchmarked to a broad global equity benchmark, currently the MSCI All Country World Index Investable Market Index with U.S. Gross. Approximately $28 \%$ of the public equity porffolio is invested in global equity strategies, which includes U.S. and non-U.S. markets. External managers employing active strategies manage these strategies.

## Fixed Income

WSIB staff members internally manage the fixed income portfolio using Barclays Capital Universal Index as the performance benchmark. The management strategy is primarily one of sector selection.

The porffolio is structured to be over- or under-weighted relative to the benchmark's sectors: primarily treasuries, agencies, credit, mortgage-backed securities and asset-backed securities. The duration of the portfolio is slightly shorter than that of the Barclays Capital Universal Index.

Retirement Funds' Fixed Income Sector Distribution As of June 30, 2017

| Investment Type | WSIB Fixed <br> Income | Barclays Capital <br> Universal Index |
| :--- | ---: | ---: |
| Cash | $0.84 \%$ | $0.00 \%$ |
| Treasury Inflation Protected Securities (TIPS) | $0.00 \%$ | $0.00 \%$ |
| U.S. Treasury | $30.40 \%$ | $30.72 \%$ |
| U.S. Agency | $0.00 \%$ | $1.58 \%$ |
| U.S. Credit | $63.29 \%$ | $42.03 \%$ |
| Pass-Through Mortgages | $4.86 \%$ | $23.65 \%$ |
| Collateral Mortgage Obligations (CMO) | $0.24 \%$ | $0.00 \%$ |
| Commercial Mortgage-Backed | $0.38 \%$ | $1.62 \%$ |
| Securities (CMBS) | $0.00 \%$ | $0.40 \%$ |
| Asset-Backed Securities (ABS) |  |  |

## Private Equity

The private equity porffolio, originated in 1981, is primarily invested in partnerships that acquire or create

## Report on Investment Activity (cont.)

ongoing businesses or operating companies. The WSIB has investments in all stages of the business life cycle, from private startup technology companies to large multinational public concerns. These are long-term investments, typically 10 to 12 years in life. They are expected to generate investment returns well in excess of public equity securities.

## Real Estate

The real estate portfolio is invested in a diversified group of properties, including office buildings, retail facilities, apartments, warehouses and specialty properties. The majority of these investments have been made in partnerships with operating management groups. The WSIB invests in real estate both in the United States and internationally.

## Tangible Assets

The board added tangible assets to its asset allocation in November 2007 and adopted an investment policy for the new assets class in January 2008.

The long-term allocation target is $5 \%$, plus or minus $2 \%$, and the benchmark is the Consumer Price Index (CPI) lagged one quarter plus 400 basis points. The categories of investments in this asset class are agriculture, commodities, infrastructure, natural resource rights and timber. Because this is a new asset class, the WSIB is still working toward building to its allocated target.

## Portfolio Holdings

A complete list of porffolio holdings is available by contacting:

Washington State Investment Board
2100 Evergreen Park Drive SW
PO Box 40916
Olympia, WA 98504-0916
360-956-4600

## Summary of Investment Policies

The Washington State Investment Board (WSIB), as authorized by statute, has the investment management responsibility for the pension funds. The WSIB manages retirement fund assets to maximize return at a prudent level of risk (RCW 43.33A.110).

## Retirement Fund Asset Allocation

The WSIB establishes asset allocation targets that must be considered at all times when making investment decisions. The asset mix might deviate from the target.

Deviations greater than predetermined, acceptable levels require rebalancing back to the target. If an asset class exceeds its range, the goal of rebalancing is to meet the target allocation within consideration of the other remaining asset classes.

Retirement funds are invested in the Commingled Trust Fund (CTF). The CTF's performance benchmark objective is to exceed the return of a policy benchmark consisting of public market indices weighted according to asset allocation targets. The asset allocation for the CTF is formally reviewed every three or four years.

The WSIB periodically reviews the asset allocation in relation to the established ranges.

## Public Markets Equity

The Public Markets equity program seeks to:

- Achieve the highest return possible from active management with passive as the default consistent with prudent risk management and the desire for downside protection
- Maintain liquidity and transparency in public equity, given the WSIB's allocation to illiquid markets and investment structures in other strategies and/or asset classes
- Provide diversification to the WSIB's overall investment program

The public markets equity portion of the retirement funds invests in publicly traded equities globally, including equity securities in the U.S., developed non-U.S. and emerging markets. The program has a global benchmark, currently the MSCI All Country World Investable Market Index with U.S. Gross (MSCI ACWI IMI w/ U.S. Gross).

## Fixed Income

The WSIB's fixed income investments are actively managed with the goal of exceeding the return of the Barclays Capital Universal Index over the long term. The major permissible investments include U.S. treasuries and government agencies, Treasury Inflation Protection Securities (TIPS), mortgage-backed securities, asset-backed securities, and credit bonds, both investment grade in quality and below investment grade.

Policy constrains the porffolio from investing more than $1 \%$ of the porffolio's par holdings in any single issuer with a quality rating below investment grade and from having a duration (the sensitivity of the portfolio's market value to changes in the level of interest rates) that is more than $20 \%$ different from the duration of the Universal Index. In addition, the major sector allocations are limited to the following ranges:

| Range Limitations of Major Sector Allocations |  |
| :--- | ---: |
| U.S. Treasuries and Government Agencies | $10-45 \%$ |
| Credit Bonds | $10-80 \%$ |
| Asset-Backed Securities | $0-10 \%$ |
| Commercial Mortgage-Backed Securities | $0-10 \%$ |
| Mortgage-Backed Securities | $5-45 \%$ |

## Private Equity Investing

The WSIB can invest in any appropriate private equity investment opportunity that has the potential for returns superior to traditional investment opportunities and that is not prohibited by law or the WSIB's policies.

These investment types are divided into venture capital investments, corporate finance (including leveraged, management and employee buyouts), distressed, international and mezzanine investments. Private equity investments are made through limited partnership vehicles.

To meet the return and plan objectives, the private equity portfolio has diversified investments in companies in a variety of stages of growth. The portfolio also includes a broad cross-section of opportunities in different industries and geographic regions.

## Summary of Investment Policies (cont.)

## Real Estate Program

The WSIB's real estate program is an externally managed pool of selected partnership investments, intended to provide alternative porffolio characteristics when compared to traditional stock and bond investments.

The majority of the WSIB's partnerships invest in institutional-quality real estate assets that are leased to third parties. Income generated from bond-like lease payments coupled with the hard asset qualities of real estate combine to generate returns that are expected to fall between the return expectations for fixed income and equities.

The real estate porifolio is managed to deliver riskadjusted returns that are consistent with the board's long-term return expectations for the asset class. The WSIB's real estate partnerships typically invest in private real estate assets that are held for long-term income and appreciation.

Many of the WSIB's investment partnerships do not involve co-investment with other financial entities, thereby providing the WSIB with control provisions related to liquidation, acquisition and ongoing operational decisions for annual capital expenditures.

Volatility within the real estate porffolio is minimized through a combination of factors. First, the majority of the WSIB's partners own real estate assets in a private investment form, which is not subject to public market volatility. Second, real estate capital is diversified among a host of partners with varying investment styles. Third, partnership assets are invested in numerous economic regions, including foreign markets, and in various property types. Fourth, the WSIB's partners invest at different points within the properties' capital structures and life cycles.

The WSIB's current benchmark for real estate is an $8 \%$ return over a rolling 10 years. The National Council of Real Estate Investment Fiduciaries (NCREIF) property index lagged one quarter is still used for comparison purposes but is no longer the policy benchmark.

## Tangible Assets

The WSIB can invest in any tangible asset investment opportunity that demonstrates acceptable risk-adjusted returns as long as law and board policy do not prohibit such opportunities. The WSIB seeks a prudent and disciplined approach to achieving a well-diversified porffolio of tangible asset investments targeting appropriate risk-adjusted returns for the asset class. Staff members make best efforts to obtain significant co-investment from their investment partners to improve alignment of interests.

Staff members prudently seek to diversify the porffolio cognizant of each partner's strategy and business plan. Investments are not made solely to achieve product type or geographic diversification.

## Investment Professionals

For the Year Ended June 30, 2017 - Page 1 of 2

These investment professionals provided services for the retirement funds during fiscal year 2017:

## Private Equity Partners

Accel Partners
Actis
Advent International
Affinity Equity Partners
Alta Communications
Ampersand Ventures
Apax Partners
Apex Investment Partners
Austin Ventures
Avenue Capital Group
Banc Funds
Battery Ventures
BC Partners
Blackstone Group
Bridgepoint Capital
Butler Capital Partners
Canaan Partners
Capital Resource Partners
CDH Investments
Charterhouse Capital Partners
Cinven Ltd.
Clayton, Dubilier \& Rice
Code, Hennessy \& Simmons
Collinson Howe \& Lennox
Cypress Group
Denham Capital
Doughty Hanson \& Co.
Edgewater Funds
EIG Global Energy Partners
El Dorado Ventures
Elevation Partners
Endeavour Capital
Essex Woodlands
Evergreen Pacific Partners
First Reserve Corp.
Fisher Lynch Capital
Fortress Investment Group
FountainVest Partners
Francisco Partners
Frazier \& Co.

## Private Equity Partners (cont.)

Friedman Fleischer \& Lowe
GGV Capital
GI Partners
Gilbert Global Equity Partners
Great Hill Partners
GTCR
H.I.G. Ventures

HarbourVest Partners
Hellman \& Friedman
Insight Venture Partners
Intersouth Partners
JMI Equity
Kohlberg Kravis Roberts \& Co.
KSL Capital Partners
Leonard Green \& Partners
M/C Venture Partners
Madison Dearborn Partners
MatlinPatterson Global Advisors
Menlo Ventures
Mobius Venture Capital
Morgan Stanley Venture Partners
New Enterprise Associates
Nordic Capital
Oak Investment Partners
Oaktree Capital Management
OVP Venture Partners
PAG Asia Capital
Palamon Capital Partners
Permira
Polaris Venture Partners
Providence Equity Partners
Rhone Capital
Roark Capital Group
Silver Lake Partners
Southern Cross Group
Spark Management Partners
Stone Point Capital
TA Associates
Tailwind Capital Partners

## Private Equity Partners (cont.)

Technology Crossover Ventures
The Riverside Co.
Three Arch Partners
TowerBrook Capital Partners
TPG Partners
Trident Capital Partners
Triton Partners
U.S. Venture Partners

Union Square Ventures
Unitas Capital
VantagePoint Venture Partners
Vestar Capital Partners
Vivo Ventures
Warburg Pincus

## Real Estate Partners

Aevitas Property Partners
Calzada Capital Partners
Cherokee
Emerging Markets Fund of Funds
Evergreen Investment Advisors
Fillmore Capital Partners
Global Co-Investment
Hemisferio Sul
Hudson Advisors
Morgan Stanley
Pacific Realty
Principal Enterprise Capital
Proprium
Warburg Pincus

## Tangible Partners

Agriculture Capital Management
Alinda Capital Partners
Barings
EnerVest Ltd.
Geronimo Energy

## Investment Professionals (cont.)

For the Year Ended June 30, 2017 - Page 2 of 2

## Tangible Partners (cont.)

Global Infrastructure Partners
Highstar Capital
Homestead Capital
I Squared Capital
International Farming Corp.
Laguna Bay Pastoral Co.
Lime Rock Resource
Orion Resource Partners
Prostar Capital
Reservoir Resource Partners
Sheridan Production Partners
Silver Creek Advisory Partners
Stonepeak Advisors
Teays River Investments
UBS Farmland Investors
Warwick Management Co.

## Public Equity Fund

Managers
Aberdeen Asset Management PLC
AQR Capital Management
Arrowstreet Capital LP
BlackRock Institutional Trust Co.
Brandes Investment Partners
D.E. Shaw Investment

Management
Lazard Asset Management LLC
Longview Partners
Magellan Asset Management Ltd.
Mondrian Investment Partners Ltd.
State Street Global Advisors
William Blair \& Co.

## Overlay

State Street Global Advisors

Schedule of Investment Management Fees and Commissions

## For the Year Ended June 30, 2017 <br> Dollars in Thousands

|  | Fees Paid |  | Netted Fees ${ }^{1}$ |  | Total Fees and Expenses |  | Net Assets Under Management |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Equity Securities |  |  |  |  |  |  |  |  |
| Public Equity Active Management | \$ | 57,335 | \$ | 412 | \$ | 57,747 | \$ | 16,428,804 |
| Public Equity Passive Management |  | 2,446 |  | 920 |  | 3,366 |  | 19,015,269 |
| Alternative Investments |  |  |  |  |  |  |  |  |
| Private Equity |  | 204,920 |  | 2,149 |  | 207,069 |  | 19,435,555 |
| Real Estate |  | 45,591 |  | 10,585 |  | 56,176 |  | 16,305,848 |
| Tangible Assets |  | 53,491 |  | 9,135 |  | 62,626 |  | 3,478,120 |
| Cash Management |  | 2,345 |  | - |  | 2,345 |  | 1,453,739 |
| Debt Securities |  | - |  | - |  | - |  | 16,948,266 |
| Other Fees |  |  |  |  |  |  |  |  |
| Consultants and Accounting |  | 908 |  | - |  | 908 |  | n/a |
| Legal Fees |  | 994 |  | - |  | 994 |  | n/a |
| Research Services |  | 2,275 |  | - |  | 2,275 |  | n/a |
| Securities Lending Rebates and Fees |  | 6,173 |  | - |  | 6,173 |  | n/a |
| Miscellaneous Fees |  | 257 |  | - |  | 257 |  | n/a |
| DCP Management Fees |  | 5,023 |  | - |  | 5,023 |  | n/a |
| JRA Management Fees |  | 14 |  | - |  | 14 |  | n/a |
| PERS Plan 3 Management Fees |  | 1,204 |  | - |  | 1,204 |  | n/a |
| SERS Plan 3 Management Fees |  | 509 |  | - |  | 509 |  | n/a |
| TRS Plan 3 Management Fees |  | 3,346 |  | - |  | 3,346 |  | n/a |
| WSIB Operating Costs |  | 15,632 |  | - |  | 15,632 |  | n/a |
| Total Investment Expenses | \$ | 402,463 | \$ | 23,201 | \$ | 425,664 | \$ | 93,065,601 |

${ }^{1}$ Netted fees are included in unrealized gains (losses) in the accompanying financial statements.

Schedule of Broker Volume and Equity Commissions Paid

## For the Year Ended June 30, 2017 Dollars in Thousands - Page 1 of 5

| Broker | Equity |  |  |  |  |  |  | Fixed Income |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Volume Transacted |  | Buy Cost |  | Proceeds |  | Commission |  | Long-Term Volume Transacted |  | Short-Term Volume Transacted |
| Auerbach Grayson \& Co. Inc. | \$ 111 | \$ | 5,561 | \$ | - | \$ | 3 | \$ | - | \$ | - |
| Banco Itau SA | 1,174 |  | 5,810 |  | 1,230 |  | 6 |  | - |  | - |
| Banco Pactual SA | 1,071 |  | 159 |  | 3,028 |  | 6 |  | - |  | - |
| Banco Santander Brasil SA | - |  | - |  | - |  | - |  | 66,717 |  | - |
| Banco Santander Central Hispano | 5,376 |  | 3,740 |  | 563 |  | 6 |  | - |  | - |
| Bank of America Intl. NY United States | - |  | - |  | - |  | - |  | 168,862 |  | - |
| Bank of America/LaSalle Bank NA | - |  | - |  | - |  | - |  | 299,136 |  | - |
| Bank of New York | - |  | - |  | - |  | - |  | 16,951 |  | - |
| Bank of New York/Barclays London | - |  | - |  | - |  | - |  | 51,850 |  | - |
| Bank of Nova Scotia | 101 |  | 823 |  | - |  | 1 |  | - |  | - |
| Barclays Bank PLC | - |  | - |  | - |  | - |  | 234,057 |  | - |
| Barclays Bank PLC London Branch | - |  | - |  | - |  | - |  | 95,667 |  | - |
| Barclays Capital | 1,888 |  | 44,311 |  | 72,771 |  | 62 |  | - |  | - |
| Barclays Capital Inc. | - |  | - |  | - |  | - |  | 462,664 |  | - |
| Barclays Capital Inc./LE | 17,357 |  | 425,394 |  | 413,328 |  | 3 |  | - |  | - |
| Barclays Capital LE | 421 |  | 12,602 |  | 863 |  | 11 |  | - |  | - |
| BBVA Securities NY | - |  | - |  | - |  | - |  | 12,963 |  | - |
| Bloomberg Tradebook Europe Ltd. | 2,417 |  | 6,108 |  | 2,036 |  | 3 |  | - |  | - |
| Bloomberg Tradebook LLC | 5,178 |  | 7,298 |  | - |  | 4 |  | - |  | - |
| BMO Nesbitt Burns Trading Corp. SA | - |  | - |  | - |  | - |  | 149,568 |  | - |
| BNP Paribas Securities Corp./Fixed Income | - |  | - |  | - |  | - |  | 26,922 |  | - |
| BNP Paribas Securities India Pvt. Ltd. | 608 |  | 2,192 |  | - |  | 5 |  | - |  | - |
| BNP Paribas Securities Services | 2,241 |  | 12,662 |  | 5,026 |  | 12 |  | - |  | - |
| BNP Paribas Securities Services SA | 474 |  | 221 |  | 138 |  | 1 |  | - |  | - |
| Bony/Toronto Dominion Securities Inc. | - |  | - |  | - |  | - |  | 31,908 |  | - |
| Bradesco SA CTVM | 4,542 |  | 15,320 |  | 9,423 |  | 16 |  | - |  | - |
| Broadcort Capital Corp. | 15 |  | - |  | 2,827 |  | - |  | - |  | - |
| BTG Capital Corp. | 16 |  | - |  | 410 |  | 1 |  | - |  | - |
| BTIG LLC | 3 |  | - |  | 339 |  | - |  | - |  | - |
| Calyon Securities (USA) Inc. | - |  | - |  | - |  | - |  | 89,741 |  | - |
| Canaccord Genuity Ltd. | 75 |  | 39 |  | 621 |  | - |  | - |  | - |
| Cantor Fitzgerald \& Co. | 434 |  | 176 |  | 7,557 |  | 13 |  | 16,951 |  | - |
| Cantor Fitzgerald/Cantor Clearing Services | 5 |  | - |  | 273 |  | - |  | - |  | - |
| Carnegie Investment Bank AB | 252 |  | 10,983 |  | - |  | 9 |  | - |  | - |
| Carnegie Securities Finland | 13 |  | - |  | 349 |  | - |  | - |  | - |
| Celfin Capital SA Corredores de Bolsa | 1,775 |  | 2,037 |  | 824 |  | 5 |  | - |  | - |
| China Intl. Capital Co. | 29,009 |  | 13,065 |  | 11,985 |  | 11 |  | - |  | - |
| Citibank NA | - |  | - |  | - |  | - |  | 272,214 |  | - |
| Citigroup Global Market Korea Securities Ltd. | 840 |  | 31,031 |  | 20,030 |  | 36 |  | - |  | - |
| Citigroup Global Markets Australia Pty. Ltd. | 129 |  | 1,206 |  | - |  | - |  | - |  | - |
| Citigroup Global Markets Inc. | 39,430 |  | 388,411 |  | 362,522 |  | 174 |  | 153,167 |  | - |
| Citigroup Global Markets Inc. Salomon Brothers | - |  | - |  | - |  | - |  | 822,350 |  | - |
| Citigroup Global Markets India | 2,339 |  | 4,709 |  | 6,871 |  | 11 |  | - |  | - |

Schedule of Broker Volume and Equity Commissions Paid (cont.)

For the Year Ended June 30, 2017
Dollars in Thousands - Page 2 of 5

| Broker | Equity |  |  |  |  |  |  |  | Fixed Income |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Volume Transacted |  | Buy Cost |  | Proceeds |  | Commission |  | Long-Term Volume Transacted |  | Short-Term Volume Transacted |
| Citigroup Global Markets Ltd. | \$ | 37,713 | \$ | 110,728 | \$ | 88,554 | \$ | 120 | \$ | - | \$ | - |
| Citigroup Global Markets Taiwan |  | 3,205 |  | 404 |  | 7,816 |  | 5 |  | - |  | - |
| Citigroup Global Markets UK Equity Ltd. |  | 60 |  | - |  | 3,283 |  | - |  | - |  | - |
| CL Securities Taiwan Co. Ltd. |  | 2,728 |  | - |  | 5,970 |  | 4 |  | - |  | - |
| CLSA Australia Pty. Ltd. |  | 54 |  | 319 |  | 293 |  | - |  | - |  | - |
| CLSA Securities Korea Ltd. |  | 63 |  | 2,277 |  | 4,631 |  | 6 |  | - |  | - |
| CLSA Singapore Pte. Ltd. |  | 15,007 |  | 20,808 |  | 33,449 |  | 29 |  | - |  | - |
| Concordia SA CVMCC |  | 309 |  | 1,030 |  | 117 |  | 1 |  | - |  | - |
| Convergex Execution Solutions LLC |  | 22,805 |  | 95,584 |  | 125,656 |  | 64 |  | - |  | - |
| Cowen \& Co. LLC |  | 2 |  | 38 |  | - |  | - |  | - |  | - |
| Credit Lyonnais Securities (India) |  | 1,969 |  | 13,457 |  | 7,378 |  | 16 |  | - |  | - |
| Credit Lyonnais Securities (Asia) |  | 17,267 |  | 11,289 |  | 15,029 |  | 19 |  | - |  | - |
| Credit Suisse (USA) LLC |  | 2 |  | - |  | 193 |  | - |  | - |  | - |
| Credit Suisse First Boston |  | 17,717 |  | 8,055 |  | 11,284 |  | 5 |  | - |  | - |
| Credit Suisse First Boston (Europe) |  | 1,410 |  | 24,608 |  | 17,405 |  | 12 |  | - |  | - |
| Credit Suisse First Boston SA CTVM |  | 6,844 |  | 16,529 |  | 17,389 |  | 7 |  | - |  | - |
| Credit Suisse Securities (India) Pte. Ltd. |  | 170 |  | 2,493 |  | - |  | 6 |  | - |  | - |
| Credit Suisse Securities (Europe) Ltd. |  | 6,090 |  | 63,920 |  | 10,465 |  | 35 |  | - |  | - |
| Credit Suisse Securities (USA) LLC |  | 124,348 |  | 473,640 |  | 432,130 |  | 171 |  | 458,291 |  | - |
| CS First Boston (Hong Kong) Ltd. |  | 961 |  | 34,274 |  | 24,544 |  | 7 |  | - |  | - |
| CSFB Australia Equities Ltd. |  | 1,055 |  | 2,002 |  | 1,120 |  | 2 |  | - |  | - |
| Daewoo Securities Co. Ltd. |  | 35 |  | 1,948 |  | - |  | 4 |  | - |  | - |
| Daiwa Securities (Hong Kong) Ltd. |  | 9,567 |  | 70,745 |  | 39,448 |  | 28 |  | - |  | - |
| Daiwa Securities America Inc. |  | 180 |  | - |  | 13,427 |  | 8 |  | - |  | - |
| Daiwa Securities Co. Ltd. |  | 74 |  | 1,581 |  | 1,526 |  | 6 |  | - |  | - |
| Daiwa Securities SB Capital Markets |  | 146 |  | 13,243 |  | - |  | 12 |  | - |  | - |
| Davy Stockbrokers |  | 15 |  | 1,776 |  | - |  | 3 |  | - |  | - |
| DBS Vickers Securities (Singapore) |  | 2 |  | - |  | 24 |  | - |  | - |  | - |
| Deutsche Bank AG London |  | 3,739 |  | 49,813 |  | 38,803 |  | 29 |  | - |  | - |
| Deutsche Bank Securities Inc. |  | 2,229 |  | 30,170 |  | 2,573 |  | 13 |  | 8,974 |  | - |
| Deutsche Equities India Pvt. Ltd. DB |  | 56 |  | 1,682 |  | - |  | 2 |  | - |  | - |
| Deutsche Securities Asia Ltd. |  | 453 |  | - |  | 3,461 |  | 9 |  | - |  | - |
| DSP Merrill Lynch Ltd. |  | 21,135 |  | 60,016 |  | 30,343 |  | 87 |  | - |  | - |
| Edelweiss Securities Pvt. Ltd. |  | 620 |  | - |  | 5,709 |  | 4 |  | - |  | - |
| EFG Eurobank Securities SA |  | 39 |  | 349 |  | - |  | 1 |  | - |  | - |
| Exane SA |  | 2,793 |  | 21,078 |  | 15,035 |  | 13 |  | - |  | - |
| Goldman Sachs (Asia) LLC |  | 1,335 |  | 14,113 |  | 22,606 |  | 15 |  | - |  | - |
| Goldman Sachs (India) |  | 105 |  | 266 |  | 807 |  | 1 |  | - |  | - |
| Goldman Sachs \& Co. |  | 1,032,743 |  | 1,492,004 |  | 1,523,802 |  | 231 |  | 264,007,294 |  | - |
| Goldman Sachs do Brasil Corretora |  | 2,376 |  | 8,799 |  | 3,066 |  | 8 |  | - |  | - |
| Goldman Sachs Intl. |  | 19,024 |  | 29,410 |  | 19,880 |  | 16 |  | - |  | - |
| Goodbody Stockbrokers |  | 45 |  | 204 |  | 10 |  | - |  | - |  | - |
| Hoare Govett Summit Securities Ltd. Singapore |  | 17 |  | 331 |  | - |  | - |  | - |  | - |

Schedule of Broker Volume and Equity Commissions Paid (cont.)

For the Year Ended June 30, 2017
Dollars in Thousands - Page 3 of 5

| Broker | Equity |  |  |  |  |  |  |  | Fixed Income |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Volume Transacted |  | Buy Cost |  | Proceeds |  | Commission |  | Long-Term Volume Transacted |  | Short-Term Volume Transacted |
| Hongkong \& Shanghai Banking Corp. | \$ | 6,983 | \$ | 10,244 | \$ | 10,177 | \$ | 13 | \$ | - | \$ | - |
| HSBC Bank Brasil SA Banco Multiplo |  | 410 |  | 618 |  | 682 |  | 1 |  | - |  | - |
| HSBC Bank PLC |  | 44,180 |  | 200,906 |  | 156,580 |  | 114 |  | - |  | - |
| HSBC Brokerage (USA) Inc. |  | 218 |  | 1,574 |  | 228 |  | 5 |  | - |  | - |
| HSBC Securities |  | 277 |  | 2,010 |  | - |  | 1 |  | - |  | - |
| HSBC Securities (USA) Inc. |  | 32,733 |  | 356,214 |  | 320,130 |  | 166 |  | 56,836 |  | - |
| HSBC Securities India Holdings |  | 202 |  | 1,691 |  | - |  | - |  | - |  | - |
| ICBC Financial Services |  | 14 |  | 74 |  | 305 |  | - |  | - |  | - |
| ICICI Brokerage Services |  | 4,793 |  | 7,141 |  | 15,473 |  | 23 |  | - |  | - |
| India Infoline Ltd. |  | 259 |  | 1,810 |  | 2,029 |  | 5 |  | - |  | - |
| Instinet |  | 1,799 |  | 21,145 |  | 29,781 |  | 3 |  | - |  | - |
| Instinet Australia Clearing Services Pty. Ltd. |  | 6,334 |  | 26,618 |  | 15,246 |  | 11 |  | - |  | - |
| Instinet LLC |  | 50,275 |  | 261,172 |  | 227,639 |  | 136 |  | - |  | - |
| Instinet Pacific Ltd. |  | 140,228 |  | 107,499 |  | 100,178 |  | 108 |  | - |  | - |
| Instinet Singapore Services Pte. |  | 203 |  | 1,560 |  | - |  | - |  | - |  | - |
| Instinet UK Ltd. |  | 67,981 |  | 498,158 |  | 342,260 |  | 247 |  | - |  | - |
| Investec Securities Ltd. |  | 107 |  | 931 |  | - |  | 1 |  | - |  | - |
| Investment Technology Group Inc. |  | 20,231 |  | 327,518 |  | 283,771 |  | 139 |  | - |  | - |
| Investment Technology Group Ltd. |  | 34,993 |  | 265,916 |  | 261,368 |  | 160 |  | - |  | - |
| ITAU Chile Corredor de Bolsa Ltd. |  | 3,481 |  | 1,033 |  | 3,292 |  | 5 |  | - |  | - |
| ITG Australia Ltd. |  | 3,242 |  | 21,415 |  | 19,118 |  | 17 |  | - |  | - |
| ITG Canada |  | 5,389 |  | 31,023 |  | 27,202 |  | 14 |  | - |  | - |
| ITG Inc. |  | 1,475 |  | 1,057 |  | 601 |  | 1 |  | - |  | - |
| ITG Securities (HK) Ltd. |  | 28,683 |  | 36,183 |  | 18,503 |  | 22 |  | - |  | - |
| JPMorgan Chase/JPMorgan Intl. |  | - |  | - |  | - |  | - |  | 37,891 |  | - |
| JPMorgan India Pte. Ltd. |  | 1,117 |  | 1,235 |  | 4,277 |  | 6 |  | - |  | - |
| JPMorgan Securities Inc. |  | 7,994 |  | 42,113 |  | 33,621 |  | 44 |  | - |  | - |
| JPMorgan Clearing Corp. |  | 7,842 |  | 127,588 |  | 143,387 |  | 54 |  | - |  | - |
| JPMorgan Securities (Taiwan) Ltd. |  | 773 |  | - |  | 3,199 |  | 2 |  | - |  | - |
| JPMorgan Securities Ltd. |  | 27 |  | - |  | 1,620 |  | 4 |  | 694,380 |  | - |
| JPMorgan Securities (Far East) Ltd. Seoul |  | 147 |  | 4,659 |  | 8,536 |  | 8 |  | - |  | - |
| Janney Montgomery Scott LLC |  | 106 |  | 6,614 |  | 2,494 |  | 5 |  | - |  | - |
| Jefferies \& Co. Inc. |  | 4,079 |  | 6,539 |  | 4,292 |  | 10 |  | 119,654 |  | - |
| Jefferies Intl. Ltd. |  | 483 |  | 2,894 |  | 2,157 |  | 1 |  | - |  | - |
| Joh. Berenberg, Gossler \& Co. |  | 195 |  | 4,077 |  | - |  | 6 |  | - |  | - |
| JonesTrading Institutional Services LLC |  | 252 |  | - |  | 6,872 |  | 8 |  | - |  | - |
| JPMorgan Chase Bank/HSBC SI |  | - |  | - |  | - |  | - |  | 387,880 |  | - |
| JPMorgan Securities Australia Ltd. |  | 1,644 |  | 8,164 |  | 3,604 |  | 3 |  | - |  | - |
| JPMorgan Securities PLC |  | 31,869 |  | 193,508 |  | 188,551 |  | 128 |  | - |  | - |
| JPMorgan Securities Singapore |  | 315 |  | 1,683 |  | 42 |  | 2 |  | - |  | - |
| JPMorgan Chase Bank |  | - |  | - |  | - |  | - |  | 25,325 |  | - |
| JPMorgan Chase Bank/RBS Securities Inc. |  | - |  | - |  | - |  | - |  | 518,502 |  | - |

Schedule of Broker Volume and Equity Commissions Paid (cont.)

## For the Year Ended June 30, 2017 Dollars in Thousands - Page 4 of 5



Schedule of Broker Volume and Equity Commissions Paid (cont.)

## For the Year Ended June 30, 2017 Dollars in Thousands - Page 5 of 5

| Broker | Equity |  |  |  |  |  |  | Fixed Income |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Volume Transacted |  | Buy Cost |  | Proceeds |  | Commission |  | Long-Term Volume Transacted |  | Short-Term Volume Transacted |
| Pershing Securities Ltd. | \$ 409 | \$ | 6,017 | \$ | 3,049 | \$ | 2 | \$ | - | \$ | - |
| RBC Dominion Securities Co. | 1 |  | - |  | 53 |  | - |  | - |  | - |
| Raymond James \& Associates Inc. | 1,408 |  | 19,480 |  | 17,166 |  | 14 |  | - |  | - |
| RBC Capital Markets | 24 |  | - |  | 1,783 |  | 1 |  | 43,873 |  | - |
| RBC Capital Markets LLC | 52 |  | 3,641 |  | 652 |  | 1 |  | - |  | - |
| RBC Dominion Securities Inc. | 640 |  | 6,714 |  | 14,400 |  | 27 |  | - |  | - |
| Redburn Partners LLP | 151 |  | 9,279 |  | - |  | 9 |  | - |  | - |
| Royal Bank of Canada Europe Ltd. | 363 |  | 11,544 |  | 11,399 |  | 18 |  | - |  | - |
| Sanford C. Bernstein \& Co. LLC | 25,777 |  | 362,006 |  | 408,389 |  | 200 |  | - |  | - |
| Sanford C. Bernstein Ltd. | 27,707 |  | 159,599 |  | 96,594 |  | 88 |  | - |  | - |
| Santander Investment Securities | 4 |  | 38 |  | - |  | - |  | - |  | - |
| Scotia Capital (USA) Inc. | 239 |  | 2,372 |  | 241 |  | 2 |  | 99,712 |  | - |
| Scotia Capital Markets | 27 |  | 1,238 |  | - |  | 1 |  | - |  | - |
| SG Americas Securities LLC | 16,618 |  | 274,479 |  | 323,575 |  | 127 |  | - |  | - |
| SG Asia Securities (India) Pvt. Ltd. | 580 |  | 573 |  | 1,935 |  | 3 |  | - |  | - |
| SG Securities HK | 23,476 |  | 89,877 |  | 75,066 |  | 53 |  | - |  | - |
| Sinopac Securities Corp. | 1,884 |  | 2,480 |  | 335 |  | 2 |  | - |  | - |
| SMBC Securities Inc. | 11 |  | - |  | 176 |  | - |  | - |  | - |
| Societe Generale London Branch | 20,577 |  | 158,917 |  | 152,197 |  | 158 |  | - |  | - |
| Standard CT AIG | - |  | - |  | - |  | - |  | 49,856 |  | - |
| State Street Bank \& Trust | - |  | - |  | - |  | - |  | - |  | 21,248,490 |
| State Street Global Markets LLC | 293 |  | 1,062 |  | 1,022 |  | 1 |  | - |  | - |
| Stifel, Nicolaus \& Co. Inc | 730 |  | 3,288 |  | - |  | - |  | - |  | - |
| Tera Menkul Degerler AS | 5,847 |  | 9,322 |  | 2,609 |  | 12 |  | - |  | - |
| Topline Securities Pvt. Ltd. | 1,237 |  | 1,323 |  | - |  | 6 |  | - |  | - |
| Toronto Dominion Securities Inc. | 342 |  | 1,025 |  | 11,816 |  | 8 |  | - |  | - |
| UBS AG | 11,680 |  | 51,770 |  | 48,801 |  | 32 |  | - |  | - |
| UBS Financial Services Inc. | 144 |  | 861 |  | - |  | - |  | - |  | - |
| UBS Ltd. | 19,039 |  | 179,174 |  | 182,509 |  | 162 |  | - |  | - |
| UBS Securities Asia Ltd. | 74,368 |  | 79,180 |  | 37,904 |  | 35 |  | - |  | - |
| UBS Securities Canada Inc. | 1,706 |  | 14,999 |  | 17,484 |  | 9 |  | - |  | - |
| UBS Securities India Pvt. Ltd. | 168 |  | 1,131 |  | - |  | 2 |  | - |  | - |
| UBS Securities LLC | 11,978 |  | 304,528 |  | 296,425 |  | 94 |  | 178,734 |  | - |
| UBS Securities Pte. Ltd | 258 |  | - |  | 1,689 |  | - |  | - |  | - |
| UBS Securities Pte. Ltd. Seoul | 3 |  | 55 |  | 5,407 |  | 7 |  | - |  | - |
| UBS Warburg Australia Equities | 1,912 |  | 2,728 |  | 5,982 |  | 3 |  | - |  | - |
| US Bancorp Investments Inc. | - |  | - |  | - |  | - |  | 14,957 |  | - |
| Weeden \& Co. | 13,945 |  | 248,118 |  | 293,989 |  | 123 |  | - |  | - |
| Wells Fargo Securities LLC | 8 |  | - |  | 130 |  | - |  | - |  | - |
| Williams Capital Group LP (The) | 3 |  | - |  | 60 |  | - |  | - |  | - |
| XP Investimentos CCTVM SA | 676 |  | 2,905 |  | 656 |  | 2 |  | - |  | - |
| Total | \$ 2,633,687 | \$ | 10,101,460 | \$ | 9,464,560 | \$ | 5,327 | \$ | 270,545,697 | \$ | 21,248,490 |

Summary of Investments Owned - Pension Trust Funds

| Schedule of Investments Owned as of June 30, 2017 Dollars in Thousands - Page 1 of 7 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Description | Rate | Maturity |  | Market Value | \% of Total Market Value |
| Residential Mortgage-Backed Securities |  |  |  |  |  |
| FNMA Pool AL5255 | 2.50 | 7/1/2028 | \$ | 59,544 | 0.06\% |
| FNMA Pool AS8276 | 3.00 | 11/1/2046 |  | 48,102 | 0.05\% |
| FED HM LN PC Pool G08721 | 3.00 | 9/1/2046 |  | 47,457 | 0.05\% |
| FED HM LN PC Pool G08715 | 3.00 | 8/1/2046 |  | 47,096 | 0.05\% |
| FNMA TBA 15 YR 2.5 | 2.50 | 2/25/2032 |  | 43,160 | 0.04\% |
| GNMA III TBA 30 YR 3.5 | 3.50 | 12/20/2046 |  | 42,898 | 0.04\% |
| FNMA Pool AS6932 | 3.00 | 4/1/2046 |  | 42,253 | 0.04\% |
| FNMA Pool AS6815 | 3.00 | 3/1/2046 |  | 40,825 | 0.04\% |
| FNMA TBA 30 YR 4 | 4.00 | 5/25/2046 |  | 38,803 | 0.04\% |
| FNMA Pool AB8447 | 2.50 | 2/1/2028 |  | 37,255 | 0.04\% |
| Other | - | - |  | 552,977 | 0.54\% |
| Total Residential Mortgage-Backed Securities |  |  |  | 1,000,370 | 0.99\% |
| Commercial Mortgage-Backed Securities |  |  |  |  |  |
| Fannie Mae | 2.50 | 7/25/2028 |  | 23,240 | 0.02\% |
| GS Mortgage Securities Trust | 3.52 | 6/10/2047 |  | 15,758 | 0.02\% |
| Freddie Mac | 3.00 | 10/15/2040 |  | 15,060 | 0.01\% |
| Citigroup Commercial Mortgage | 2.79 | 3/10/2047 |  | 13,125 | 0.01\% |
| Morgan Stanley BAML Trust | 3.33 | 5/15/2049 |  | 11,615 | 0.01\% |
| UBS Barclays Commercial Mortgage | 3.09 | 8/10/2049 |  | 10,211 | 0.01\% |
| Wells Fargo Commercial Mortgage | 3.17 | 2/15/2048 |  | 10,014 | 0.01\% |
| GS Mortgage Securities Trust | 3.68 | 8/10/2043 |  | 1,714 | 0.00\% |
| Wells Fargo Commercial Mortgage | 3.35 | 11/15/2043 |  | 1,323 | 0.00\% |
| Residential Asset Securitization Trust | 4.25 | 2/25/2034 |  | 702 | 0.00\% |
| Other | - | - |  | 792 | 0.00\% |
| Total Commercial Mortgage-Backed Securities |  |  |  | 103,554 | 0.09\% |
| Corporate Bonds - Domestic Dollar Denominated |  |  |  |  |  |
| Verizon Communications | 5.15 | 9/15/2023 |  | 72,029 | 0.07\% |
| Reliance Holdings USA | 4.50 | 10/19/2020 |  | 57,756 | 0.06\% |
| Anheuser Busch Inbev Worldwide | 6.88 | 11/15/2019 |  | 55,381 | 0.05\% |
| JPMorgan Chase \& Co. | 1.70 | 3/1/2018 |  | 49,880 | 0.05\% |
| Bank of America Corp. | 3.88 | 8/1/2025 |  | 46,340 | 0.05\% |
| Citigroup Inc. | 4.00 | 8/5/2024 |  | 41,006 | 0.04\% |
| Bayer U.S. Finance LLC | 3.38 | 10/8/2024 |  | 40,640 | 0.04\% |
| Goldman Sachs Group Inc. | 2.60 | 12/27/2020 |  | 40,158 | 0.04\% |
| HSBC USA Inc. | 1.70 | 3/5/2018 |  | 39,897 | 0.04\% |
| Glencore Funding LLC | 4.63 | 4/29/2024 |  | 36,456 | 0.04\% |
| Other | - | - |  | 1,449,830 | 1.41\% |
| Total Corporate Bonds - Domestic Dollar Denominated |  |  |  | 1,929,373 | 1.89\% |

Summary of Investments Owned - Pension Trust Funds (cont.)

| Schedule of Investments Owned as of June 30, 2017 Dollars in Thousands - Page 2 of 7 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Description | Rate | Maturity |  | Market Value | \% of Total Market Value |
| Corporate Bonds - Foreign Nondollar Denominated |  |  |  |  |  |
| SACI Falabella | 6.50 | 4/30/2023 | \$ | 27,541 | 0.03\% |
| Petroleos Mexicanos | 7.19 | 9/12/2024 |  | 27,158 | 0.03\% |
| America Movil SAB de CV | 8.46 | 12/18/2036 |  | 20,523 | 0.02\% |
| Ambev International Finance Co. Ltd. | 9.50 | 7/24/2017 |  | 17,912 | 0.02\% |
| Petroleos Mexicanos | 7.65 | 11/24/2021 |  | 17,171 | 0.02\% |
| Empresas Public Medellin | 7.63 | 9/10/2024 |  | 15,914 | 0.02\% |
| BRF SA | 7.75 | 5/22/2018 |  | 13,207 | 0.01\% |
| Cosan Luxembourg SA | 9.50 | 3/14/2018 |  | 11,752 | 0.01\% |
| Turkiye Garanti Bankasi | 7.38 | 3/7/2018 |  | 10,909 | 0.01\% |
| Akbank TAS | 7.50 | 2/5/2018 |  | 10,394 | 0.01\% |
| Other | - | - |  | 25,518 | 0.02\% |
| Total Corporate Bonds - Foreign Nondollar Denominated |  |  |  | 197,999 | 0.20\% |
| Corporate Bonds - Foreign Dollar Denominated |  |  |  |  |  |
| Banco de Bogota SA | 6.25 | 5/12/2026 |  | 84,940 | 0.08\% |
| Perusahaan Gas Negara | 5.13 | 5/16/2024 |  | 80,282 | 0.08\% |
| Inversiones CMPC SA | 6.13 | 11/5/2019 |  | 69,962 | 0.07\% |
| Petronas Capital Ltd. | 3.50 | 3/18/2025 |  | 67,052 | 0.07\% |
| APT Pipelines Ltd. | 4.20 | 3/23/2025 |  | 61,859 | 0.06\% |
| Banco Bradesco (Cayman) | 5.75 | 3/1/2022 |  | 55,452 | 0.05\% |
| Ecopetrol SA | 7.63 | 7/23/2019 |  | 55,080 | 0.05\% |
| Bank of Nova Scotia | 2.05 | 6/5/2019 |  | 54,951 | 0.05\% |
| TransCanada Pipelines | 4.63 | 3/1/2034 |  | 54,635 | 0.05\% |
| Vale SA | 5.63 | 9/11/2042 |  | 54,154 | 0.05\% |
| Other | - | - |  | 6,138,664 | 5.98\% |
| Total Corporate Bonds - Foreign Dollar Denominated |  |  |  | 6,777,031 | 6.59\% |
| U.S. Government Treasuries |  |  |  |  |  |
| U.S. Treasury N/B | 1.25 | 10/31/2018 |  | 448,237 | 0.44\% |
| U.S. Treasury N/B | 1.13 | 5/31/2019 |  | 446,693 | 0.44\% |
| U.S. Treasury N/B | 2.38 | 8/15/2024 |  | 440,426 | 0.43\% |
| U.S. Treasury N/B | 2.00 | 8/15/2025 |  | 416,621 | 0.41\% |
| U.S. Treasury N/B | 1.75 | 9/30/2019 |  | 251,119 | 0.24\% |
| U.S. Treasury N/B | 2.63 | 8/15/2020 |  | 205,717 | 0.20\% |
| U.S. Treasury N/B | 1.63 | 11/15/2022 |  | 196,128 | 0.19\% |
| U.S. Treasury N/B | 1.63 | 5/15/2026 |  | 189,099 | 0.18\% |
| U.S. Treasury N/B | 1.50 | 5/31/2019 |  | 149,926 | 0.15\% |
| U.S. Treasury N/B | 0.75 | 4/15/2018 |  | 139,056 | 0.14\% |
| Other | - | - |  | 2,247,769 | 2.19\% |
| Total U.S. Government Treasuries |  |  |  | 5,130,791 | 5.01\% |

## Summary of Investments Owned - Pension Trust Funds (cont.)

| Schedule of Investments Owned as of June 30, 2017 Dollars in Thousands - Page 3 of 7 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Description | Rate | Maturity |  | Market Value | \% of Total Market Value |
| Foreign Government and Agencies - Dollar Denominated |  |  |  |  |  |
| Provincia de Buenos Aires | 7.88 | 6/15/2027 | \$ | 72,343 | 0.07\% |
| Republic of Indonesia | 5.38 | 10/17/2023 |  | 55,376 | 0.05\% |
| Socialist Republic of Vietnam | 4.80 | 11/19/2024 |  | 50,292 | 0.05\% |
| Provincia de Cordoba | 7.13 | 8/1/2027 |  | 49,705 | 0.05\% |
| Province of Manitoba | 2.13 | 6/22/2026 |  | 37,894 | 0.04\% |
| Republic of Argentina | 6.88 | 1/26/2027 |  | 36,106 | 0.04\% |
| Republic of Peru | 4.13 | 8/25/2027 |  | 32,537 | 0.03\% |
| City of Buenos Aires | 7.50 | 6/1/2027 |  | 32,286 | 0.03\% |
| Kommunalbanken AS | 1.75 | 9/15/2020 |  | 31,849 | 0.03\% |
| Republic of Indonesia | 4.35 | 1/8/2027 |  | 31,265 | 0.03\% |
| Other | - | - |  | 569,751 | 0.55\% |
| Total Foreign Government and Agencies - Dollar Denominated |  |  |  | 999,404 | 0.97\% |
| Foreign Government and Agencies - Nondollar Denominated |  |  |  |  |  |
| Republica Orient Uruguay | 4.38 | 12/15/2028 |  | 54,487 | 0.05\% |
| Malaysia Government | 4.01 | 9/15/2017 |  | 48,863 | 0.05\% |
| Nota do Tesouro Nacional | 10.00 | 1/1/2023 |  | 44,670 | 0.04\% |
| Queensland Treasury Corp. | 4.25 | 7/21/2023 |  | 41,667 | 0.04\% |
| Queensland Treasury Corp. | 6.00 | 9/14/2017 |  | 38,573 | 0.04\% |
| Republic of Colombia | 4.38 | 3/21/2023 |  | 37,805 | 0.04\% |
| Republic of Chile | 5.50 | 8/5/2020 |  | 35,917 | 0.03\% |
| Federal Republic of Brazil | 10.25 | 1/10/2028 |  | 35,132 | 0.03\% |
| New S. Wales Treasury Corp. | 5.00 | 8/20/2024 |  | 22,030 | 0.02\% |
| Federal Republic of Brazil | 8.50 | 1/5/2024 |  | 20,961 | 0.02\% |
| Other | - | - |  | 188,462 | 0.18\% |
| Total Foreign Government and Agencies - Nondollar Denominated |  |  |  | 568,567 | 0.54\% |
| Supranational - Nondollar Denominated |  |  |  |  |  |
| International Bank for Reconstruction \& Development | 5.75 | 10/21/2019 |  | 41,324 | 0.04\% |
| International American Development Bank | 6.50 | 8/20/2019 |  | 25,032 | 0.02\% |
| International Finance Corp. | 8.25 | 6/10/2021 |  | 24,961 | 0.02\% |
| International Finance Corp. | 8.00 | 10/20/2019 |  | 24,146 | 0.02\% |
| Asian Development Bank | 2.85 | 10/21/2020 |  | 12,777 | 0.01\% |
| Total Supranational - Nondollar Denominated |  |  |  | 128,240 | 0.11\% |

## Summary of Investments Owned - Pension Trust Funds (cont.)

| Schedule of Investments Owned as of June 30, 2017 Dollars in Thousands - Page 4 of 7 |  |  |
| :---: | :---: | :---: |
| Description | Market Value | \% of Total Market Value |
| Equity Securities - Domestic Dollar Denominated |  |  |
| Apple Inc. | \$ 235,439 | 0.23\% |
| Oracle Corp. | 202,681 | 0.20\% |
| Microsoft Corp. | 174,618 | 0.17\% |
| Wells Fargo \& Co. | 147,737 | 0.14\% |
| Visa Inc. Class A Shares | 135,248 | 0.13\% |
| UnitedHealth Group Inc. | 131,833 | 0.13\% |
| HCA Healthcare Inc. | 131,509 | 0.13\% |
| Alphabet Inc. Class C Shares | 126,923 | 0.12\% |
| Facebook Inc. | 123,381 | 0.12\% |
| Alphabet Inc. Class A Shares | 106,235 | 0.10\% |
| Other | 5,566,311 | 5.42\% |
| Total Equity Securities - Domestic Dollar Denominated | 7,081,915 | 6.89\% |
| Equity Securities - Domestic Nondollar Denominated |  |  |
| ResMed Inc. CDI | 1,042 | 0.00\% |
| Total Equity Securities - Domestic Nondollar Denominated | 1,042 | 0.00\% |
| Equity Securities - Foreign Nondollar Denominated |  |  |
| Nestle SA-Reg | 237,494 | 0.23\% |
| Sanofi | 220,593 | 0.21\% |
| Novartis AG-Reg | 212,193 | 0.21\% |
| Lloyds Banking Group PLC | 159,559 | 0.16\% |
| SAP SE | 119,395 | 0.12\% |
| Roche Holding AG-Genusschein | 118,619 | 0.12\% |
| AIA Group Ltd. | 113,660 | 0.11\% |
| British American Tobacco PLC | 112,499 | 0.11\% |
| Samsung Electronics Co. Ltd. | 108,006 | 0.10\% |
| Compass Group PLC | 100,294 | 0.10\% |
| Other | 12,499,451 | 12.18\% |
| Total Equity Securities - Foreign Nondollar Denominated | 14,001,763 | 13.65\% |
| Equity Securities - Foreign Dollar Denominated |  |  |
| Aon PLC | 107,592 | 0.10\% |
| Delphi Automotive PLC | 76,417 | 0.07\% |
| Taiwan Semiconductor SP ADR | 74,988 | 0.07\% |
| Willis Towers Watson PLC | 67,975 | 0.07\% |
| Accenture PLC CL-A | 61,227 | 0.06\% |
| Banco Bradesco ADR | 54,547 | 0.05\% |
| Fomento Economico Mex-SP ADR | 47,842 | 0.05\% |
| Alibaba Group Holding SP ADR | 47,595 | 0.05\% |
| Jardine Matheson Holdings Ltd. | 43,700 | 0.04\% |
| Schlumberger Ltd. | 42,228 | 0.04\% |
| Other | 683,667 | 0.67\% |
| Total Equity Securities — Foreign Dollar Denominated | 1,307,778 | 1.27\% |

## Summary of Investments Owned - Pension Trust Funds (cont.)

| Schedule of Investments Owned as of June 30, 2017 Dollars in Thousands - Page 5 of 7 |  |  |
| :---: | :---: | :---: |
| Description | Market Value | \% of Total Market Value |
| Commingled Index Funds - Domestic |  |  |
| BlackRock MSCI U.S. IMI | \$ 11,513,479 | 11.21\% |
| Total Commingled Index Funds - Domestic | 11,513,479 | 11.21\% |
| Commingled Index Funds - Foreign |  |  |
| Lazard Freres Capital Management | 478,873 | 0.47\% |
| BlackRock MSCI EM IMI Index Fund | 429,426 | 0.42\% |
| SPDR S\&P 500 ETF Trust | 1,821 | 0.00\% |
| P2P Global Investments PLC | 387 | 0.00\% |
| Total Commingled Index Funds - Foreign | 910,507 | 0.89\% |
| Cash and Money Market |  |  |
| State Street Bank \& Trust | 1,893,567 | 1.84\% |
| BlackRock Liquidity Funds | 222,859 | 0.22\% |
| U.S. Dollar | 24,295 | 0.02\% |
| Total Cash and Money Market | 2,140,721 | 2.08\% |
| Private Equity |  |  |
| Warburg Pincus Private Equity XI LP | 791,487 | 0.77\% |
| KKR 2006 Fund LP | 713,105 | 0.69\% |
| KKR North America Fund XI LP | 590,505 | 0.58\% |
| Hellman \& Friedman Capital Partners VII LP | 574,419 | 0.56\% |
| Fisher Lynch Co-Investment Partnership II LP | 507,640 | 0.49\% |
| KKR Asian Fund II LP | 449,314 | 0.44\% |
| Advent International GPE VII-B LP | 430,920 | 0.42\% |
| Permira V LP | 423,139 | 0.41\% |
| TPG Partners VI LP | 409,285 | 0.40\% |
| Warburg Pincus Private Equity X LP | 400,381 | 0.39\% |
| Other | 14,131,797 | 13.77\% |
| Total Private Equity | 19,421,992 | 18.92\% |
| Real Estate |  |  |
| Evergreen Real Estate Partners LP | 3,990,584 | 3.89\% |
| Calzada Capital Partners LLC | 3,922,535 | 3.82\% |
| Principal Enterprise Capital Holdings | 3,439,944 | 3.35\% |
| Fillmore Strategic Investors | 1,260,524 | 1.23\% |
| Zocalo Special Situations LLC | 831,401 | 0.81\% |
| Aevitas Property Partners LLC | 781,244 | 0.76\% |
| Union Square LP | 611,406 | 0.60\% |
| PacTrust Realty Association | 349,086 | 0.34\% |
| Emerging Markets Fund of Funds | 252,050 | 0.25\% |
| Morgan Stanley Special Situations Fund III LP | 134,189 | 0.13\% |
| Other | 719,929 | 0.70\% |
| Total Real Estate | 16,292,892 | 15.88\% |

## Summary of Investments Owned - Pension Trust Funds (cont.)

| Schedule of Investments Owned as of June 30, 2017 Dollars in Thousands - Page 6 of 7 |  |  |  |
| :---: | :---: | :---: | :---: |
| Description |  | Market Value | \% of Total Market Value |
| Tangible Asset |  |  |  |
| Teays River Investments LLC | \$ | 334,482 | 0.33\% |
| Alinda Infrastructure Fund II LP |  | 325,962 | 0.32\% |
| Stonepeak Infrastructure Fund II LP |  | 247,139 | 0.24\% |
| Global Infrastructure Partners II LP |  | 243,814 | 0.24\% |
| Stonepeak Infrastructure Fund LP |  | 220,828 | 0.22\% |
| Twin Creeks Timber |  | 180,143 | 0.18\% |
| Orion Mine Finance I |  | 166,309 | 0.16\% |
| EnerVest Fund XIV LP |  | 141,534 | 0.14\% |
| Warwick Partners III LP |  | 114,709 | 0.11\% |
| Orion Mine Finance II |  | 112,362 | 0.11\% |
| Other |  | 1,390,848 | 1.35\% |
| Total Tangible Asset |  | 3,478,130 | 3.40\% |
| Foreign Currency |  |  |  |
| Canadian Dollar |  | 16,159 | 0.02\% |
| Pound Sterling |  | 14,658 | 0.01\% |
| Japanese Yen |  | 14,571 | 0.01\% |
| Euro |  | 11,303 | 0.01\% |
| Australian Dollar |  | 8,928 | 0.01\% |
| Hong Kong Dollar |  | 7,059 | 0.01\% |
| South Korean Won |  | 5,546 | 0.01\% |
| Swedish Krona |  | 2,329 | 0.00\% |
| Mexican Peso |  | 1,519 | 0.00\% |
| Indian Rupee |  | 1,486 | 0.00\% |
| Other |  | 6,041 | 0.01\% |
| Total Foreign Currency |  | 89,599 | 0.09\% |
| Return Swap Contracts |  |  |  |
| Total Return Swap Contracts |  | 250 | 0.00\% |
| Total Return Swap Contracts |  | 250 | 0.00\% |
| In Plan 3 Defined Contribution and Deferred Compensation Program: Retirement Strategy Funds (Target Date Funds) |  |  |  |
| Retirement Strategy 2020 |  | 941,240 | 0.92\% |
| Retirement Strategy 2025 |  | 898,446 | 0.88\% |
| Retirement Strategy 2030 |  | 620,522 | 0.60\% |
| Retirement Strategy 2015 |  | 519,962 | 0.51\% |
| Retirement Strategy 2035 |  | 432,938 | 0.42\% |
| Retirement Strategy 2040 |  | 244,598 | 0.24\% |
| Retirement Strategy 2010 |  | 178,510 | 0.17\% |
| Retirement Strategy 2045 |  | 142,909 | 0.14\% |
| Retirement Strategy 2050 |  | 81,844 | 0.08\% |
| Other |  | 175,216 | 0.17\% |
| Total Return Swap Contracts |  | 4,236,185 | 4.13\% |

## Summary of Investments Owned - Pension Trust Funds (cont.)

| Schedule of Investments Owned as of June 30, 2017 Dollars in Thousands - Page 7 of 7 |  |  |  |
| :---: | :---: | :---: | :---: |
| Description |  | Market Value | \% of Total Market Value |
| Equity Index Funds |  |  |  |
| U.S. Large Cap Equity Index | \$ | 1,388,294 | 1.35\% |
| U.S. Small Cap Value Equity Index |  | 466,299 | 0.45\% |
| Global Equity Index |  | 304,079 | 0.30\% |
| Emerging Market Index |  | 146,517 | 0.14\% |
| Total Equity Index Funds |  | 2,305,189 | 2.24\% |
| Guaranteed Investment Contracts |  |  |  |
| Savings Pool |  | 871,816 | 0.85\% |
| Total Guaranteed Investment Contracts |  | 871,816 | 0.85\% |
| Bond Funds |  |  |  |
| Washington State Bond Fund |  | 673,409 | 0.66\% |
| U.S. Socially Responsible Fund |  | 275,889 | 0.27\% |
| Total Bond Funds |  | 949,298 | 0.93\% |
| Short-Term Investment Funds (in Defined Contribution Plans) |  |  |  |
| WSIB Short-Term Investment Fund |  | 507,858 | 0.49\% |
| Short-Term Contribution Interest Fund |  | 185 | 0.00\% |
| Total Short-Term Investment Funds (in Defined Contribution Plans) |  | 508,043 | 0.49\% |
| Securities Under Lending Agreements |  |  |  |
| Collateral Held Under Securities Lending Agreements |  | 712,665 | 0.69\% |
| Total Securities Under Lending Agreements |  | 712,665 | 0.69\% |
| Total Investments | \$ | 102,658,593 | 100.00\% |

## MEMBERSHIP by the Numbers

## 758,000 <br> CURRENT AND FORMER PUBLIC EMPLOYEES ARE BEING SERVED IN WASHINGTON



[^14]
## Membership Density by County ${ }^{2}$

This map illustrates the counties in which inactive, active and retired members lived in fiscal year 2017.


| Less Than $1 \%$ |  | $2 \%-5 \%$ |  |
| :--- | :--- | :--- | :--- |
| Adams | $\mathbf{0 \%}$ | Benton | $\mathbf{3 \%}$ |
| Asotin | $\mathbf{0 \%}$ | Clark | $\mathbf{4 \%}$ |
| Columbia | $\mathbf{0 \%}$ | Kitsap | $\mathbf{3 \%}$ |
| Ferry | $\mathbf{0 \%}$ | Skagit | $\mathbf{2 \%}$ |
| Garfield | $\mathbf{0 \%}$ | Whatcom | $\mathbf{2 \%}$ |
| Jefferson | $\mathbf{0 \%}$ | Yakima | $\mathbf{3 \%}$ |
| Klickitat | $\mathbf{0 \%}$ |  |  |
| Lincoln | $\mathbf{0 \%}$ |  |  |
| Pacific | $\mathbf{0 \%}$ |  |  |
| Pend Orielle | $\mathbf{0 \%}$ | Spokane | $\mathbf{6 \%}$ |
| San Juan | $\mathbf{0 \%}$ | Snohomish | $\mathbf{8 \%}$ |
| Skamania | $\mathbf{0 \%}$ | Thurston | $\mathbf{8 \%}$ |
| Wankiakum | $\mathbf{0 \%}$ |  |  |
|  |  | $11 \%+$ |  |
| 1\%-2\% |  |  |  |
| Chelan | $\mathbf{1 \%}$ |  |  |
| Clallam | $\mathbf{1 \%}$ |  |  |
| Cowlitz | $\mathbf{1 \%}$ |  |  |
| Douglas | $\mathbf{1 \%}$ |  |  |
| Franklin | $\mathbf{1 \%}$ |  |  |
| Grant | $\mathbf{1 \%}$ |  |  |
| Grays Harbor | $\mathbf{1 \%}$ |  |  |
| Island | $\mathbf{1 \%}$ |  |  |
| Kittitas | $\mathbf{1 \%}$ |  |  |
| Lewis | $\mathbf{1 \%}$ |  |  |
| Mason | $\mathbf{1 \%}$ |  |  |
| Okanogan | $\mathbf{1 \%}$ |  |  |
| Stevens | $\mathbf{1 \%}$ |  |  |
| Walla Walla | $\mathbf{1 \%}$ |  |  |
| Whitman | $\mathbf{1 \%}$ |  |  |
|  |  |  |  |

[^15]Actuarial Section

## Office of the State Actuary <br> "Supporting financia s security for generations:

September 29, 2017

Ms. Tracy Guerin
Director
Department of Retirement Systems
PO Box 48380
Olympia, Washington 98504-8380

## SUBJECT: ACTUARIAL CERTIFICATION LETTER

Dear Ms. Guerin:
At your request, we prepared the following information for inclusion in the 2017 Comprehensive Annual Financial Report (CAFR):

1. Introductory Section.

* Financial Information - Funding Paragraph.

2. Financial Section.

* Components for the Schedule of Changes in Net Pension Liability (NPL):
- Service Cost; Interest; Changes of Benefit Terms; Differences between Expected and Actual Experience; Changes in Assumptions.
* Total Pension Liability (TPL) component for the Schedule of NPL.
* Actuarially Determined Contributions and Contractually Required Contributions components for the Schedule of Contributions.
* Note 2B: Actuarial components of the Governmental Accounting Standards Board (GASB) statement number 67 requirements.
- Including the TPL component of the Sensitivity of the NPL to Changes in the Discount Rate.
* GASB 67 Notes for Required Supplementary Information:
- Methods and Assumptions.

3. Actuarial Section.

* Funded Status and Funding Progress (one year).


## State Actuary's Certification Letter (cont.)



## Actuarial Certification Letter Page 2 of 4

* Schedules of Funding Progress.
* Additional Information for the Defined Benefit Plans.
* Schedules of Active Member Valuation Data.
* Schedules of Retirees and Beneficiaries Added to and Removed from Rolls.
* Summary of Actuarial Assumptions and Methods.
* Solvency Tests.
* Analyses of Selected Experience.

4. Statistical Section.

* Distribution of Membership.
* Schedule of Benefit Recipients by Type of Benefit.
* Schedule of Average Benefit Payments to Service Retirees in Year of Retirement.

The primary purpose of this information is to satisfy the actuarial reporting requirements of GASB and the Government Finance Officers Association (GFOA). Readers should not use this information for other purposes. Please replace this information with more recent information from next year's CAFR when available.

We also prepare annual actuarial valuations for determining contribution requirements and funding progress (a "funding" valuation) consistent with the state's funding policy. The funding valuations serve a different purpose from accounting valuations or measurements, and the results of the funding valuations may not match these accounting disclosures.

We performed the most recent actuarial valuation in 2017 with a valuation date of June 30, 2016. The TPL was calculated as of the valuation date and projected to the measurement date of June 30, 2017. Plan liabilities were rolled forward from June 30, 2016, to June 30, 2017, reflecting each plan's service cost (using the Entry Age cost method), assumed interest, and actual benefit payments.

GASB 67 requires an "asset sufficiency test" to determine whether (or how long) we can use the long-term expected rate of return on assets to measure the present value of accrued plan liabilities for accounting purposes. For this test, we made the following assumptions to determine projected employee and employer contributions:

* A 7.7 percent long-term discount rate to determine funding liabilities consistent with current law for calculating future contribution rate requirements for all plans, except the Law Enforcement Officers' and Fire Fighters' Plan 2 which uses a 7.5 percent assumption.
- The Judicial Retirement System (JRS) and Judges are funded on a "pay-as-you-go" basis.


## State Actuary's Certification Letter (cont.)

## Actuarial Certification Letter

Page 3 of 4

* We reflected actual asset returns through June 30, 2017, and assumed a 7.5 percent rate of investment return on invested assets thereafter, consistent with the long-term expected rate of return (for all plans except JRS and Judges). Please see the 2015 Report on Financial Condition and Economic Experience Study (RFC and EES) on the Office of the State Actuary's website for additional background on how we selected this assumption.
* With the exception of determining future Plan 1 Unfunded Actuarial Accrued Liability (UAAL) contributions from employers of the Public Employees' Retirement System (PERS), the Teachers' Retirement System (TRS), the School Employees' Retirement System (SERS), and the Public Safety Employees' Retirement System (PSERS), we assumed no new entrants for purposes of the asset sufficiency test.
* Consistent with current law, employers of PERS, TRS, SERS, and PSERS would continue to pay the minimum Plan 1 UAAL contribution rate until the applicable Plan 1 is fully funded.
* The Legislature would continue the current contribution rate phase-in for the new mortality assumptions until the beginning of the 2019-21 Biennium.

For the asset sufficiency test, we also reviewed the resulting contribution projections for reasonability and found them to be reasonable for purposes of performing this test.

Otherwise, we used the same data, assumptions, and methods for the asset sufficiency test as we disclosed in our 2016 Actuarial Valuation Report (AVR).

As of this measurement, all plans-with the exception of JRS and Judges ("pay-as-you-go" plans)-are expected to retain sufficient assets to pay all future benefits for current members using current assumptions, current plan provisions, and assuming the continuation of current state funding policy in Chapter 41.45 RCW (the actuarial funding chapter).

During the preparation of the 2017 CAFR information, our office published the 2017 RFC and EES. The study contains our updated best estimate for key economic assumptions including future investment returns, general salary growth, and inflation. The study resulted in lowering our best estimate of the assumed rate of investment return from 7.5 percent to 7.4 percent. We also lowered our general salary growth and inflation assumptions from 3.75 percent to 3.50 percent and 3 percent to 2.75 percent, respectively. Reflecting these three assumption changes would have decreased the June 30, 2017, TPL, across all plans, by approximately 1 percent. We do not believe the results of the asset sufficiency test would change under these new assumptions. We will update our assumptions to reflect the results of the 2017 RFC and EES in next year's CAFR information.

We relied on participant data provided by your department to perform the latest actuarial valuation. The Washington State Investment Board, your department, and the Office of the State Treasurer provided financial and asset information. We reviewed the data and the assets for reasonableness as appropriate based on the purpose of the valuation. We relied on

## State Actuary's Certification Letter (cont.)



## Actuarial Certification Letter <br> Page 4 of 4

all the information provided as complete and accurate. In our opinion, this information is adequate and substantially complete for purposes of this valuation. Please see the Actuarial Certification Letter in the 2016 AVR for additional information on the certification of the latest actuarial valuation results.

We prepared the required accounting disclosures in accordance with GASB Statement 67. Please see the Department of Retirement Systems' 2017 Participating Employer Financial Information Report for our actuarial certification of disclosures that are unique to GASB 68. We relied on the same participant data, assumptions, and methods for the GASB 67 disclosures as we did for the GASB 68 disclosures.

At your request, we also prepared accounting disclosures under the prior GASB Statements 25,27 , and 50 . We prepared all the financial reporting disclosures outlined in this letter in accordance with generally accepted actuarial principles and Actuarial Standards of Practice (ASOPs) as of the date of this letter.

We certify, to the best of our knowledge, that the actuarial submissions in the 2017 CAFR meet the GFOA standards for actuarial reporting as of the date of this letter.

The undersigned, with actuarial credentials, meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinions contained herein. We are available to provide extra advice and explanations as needed.

Sincerely,


Matthew M. Smith, FCA, EA, MAAA State Actuary


Luke Masselink, ASA, EA, MAAA
Senior Actuary
$N:$ IMSI2017\2017.CAFR.Certification.Letter.docx

## Summary of Plan Provisions

A narrative summary of retirement plans DRS manages is provided in Section B of Note 2 in the Financial Section of this CAFR. A tabular summary of key plan provisions as of June 30,2017, is provided below.

| As of June 30, 2017 - Page 1 of 2 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Plan | Membership Eligibility | Vesting | Retirement Eligibility | Benefit |
| PERS Plan 1 | State employees, elected officials, employees of local governments, legislative committee employees, community/technical college employees, classified employees of school districts, district/municipal court judges, and some employees of the Supreme Court, Court of Appeals and superior courts (by 9/30/1977) | After five years of eligible service | After 30 years of service, at age 60 with five years of service or at age 55 with 25 years of service | $2 \%$ of Average Final Compensation (AFC) per year of service, capped at $60 \%$ of AFC <br> Judicial Benefit Multiplier (JBM) participants: $3.5 \%$ of AFC per year of service, capped at $75 \%$ of AFC |
| PERS Plan 2 | New members who met the same employer membership eligibility requirements as PERS Plan 1 and were hired on or after 10/1/77, new state agency and higher education members hired on or after 3/1/2002 who chose Plan 2, and new members for all other employers hired on or after 9/1/2002 who chose Plan 2 <br> PERS Plan 2 excludes classified employees of school districts. | After five years of eligible service | At age 65 with five years of service or an actuarially reduced benefit at age 55 with 20 years of service | $2 \%$ of AFC per year of service <br> JBM participants: $3.5 \%$ of AFC per year of service, capped at $75 \%$ of AFC |
| PERS Plan 31 | New members who met the same employer membership eligibility requirements as PERS Plan 2, new state agency and higher education members hired on or after 3/1/2002 who chose Plan 3, new members for all other employers hired on or after 9/1/2002 who chose Plan 3, and PERS Plan 2 members hired on or after 10/1/1977 who met transfer eligibility requirements and made a permanent choice to transfer to PERS Plan 3 | Varies | At age 65 if vested or an actuarially reduced benefit at age 55 with 10 years of service (defined benefit portion) | $1 \%$ of AFC per year of service (defined benefit portion) <br> JBM participants: $1.6 \%$ of AFC per year of service, capped at $37.5 \%$ of AFC <br> The defined contribution portion depends on the member's contribution level and on investment performance. |
| SERS Plan 2 | All classified employees of school districts or educational service districts (by 8/31/2000 and employees on or after 7/1/2007 with no past PERS Plan 2 service who chose Plan 2) | After five years of eligible service | After age 65 with five years of service or an actuarially reduced benefit at age 55 with 20 years of service | $2 \%$ of AFC per year of service |
| SERS Plan $3^{1}$ | All classified employees of school districts or educational service districts (on or after 9/1/2000 and employees on or after 7/1/2007 with no past PERS Plan 2 service who chose Plan 3) | Varies | At age 65 if vested or an actuarially reduced benefit at age 55 with 10 years of service (defined benefit portion) | $1 \%$ of AFC per year of service (defined benefit portion) <br> The defined contribution portion depends on the member's contribution level and on investment performance. |
| PSERS Plan 2 | All full-time public safety officers at select state agencies, counties and cities except the cities of Seattle, Spokane and Tacoma (on or after 7/1/2006) | After five years of eligible service | At age 65 with five years of service, at age 60 with 10 years of PSERS service or at age 53 with 20 years of service reduced $3 \%$ for each year younger than age 60 | $2 \%$ of AFC per year of service |

Summary of Plan Provisions (cont.)

| As of June 30, 2017 - Page 2 of 2 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Plan | Membership Eligibility | Vesting | Retirement Eligibility | Benefit |
| TRS Plan 1 | All certificated public school employees who worked in an instructional, administrative or supervisory capacity (by 9/30/1977) | After five years of eligible service | Any age with 30 years of service, at age 60 with five years of service or at age 55 with 25 years of service | $2 \%$ of AFC per year of service, capped at $60 \%$ of AFC <br> JBM participants: 3.5\% of AFC per year of service, capped at $75 \%$ of AFC |
| TRS Plan 2 | All certificated public school employees who worked in an instructional, administrative or supervisory capacity (on or after 10/1/1977 and by 6/30/1996 and employees on or after 7/1/2007 who chose Plan 2) | After five years of eligible service | At age 65 with five years of service or an actuarially reduced benefit at age 55 with 20 years of service | $2 \%$ of AFC per year of service |
| TRS Plan $3^{1}$ | All certificated public school employees who worked in an instructional, administrative or supervisory capacity (on or after 7/1/1996 and employees on or after 7/1/2007 who chose Plan 3) | Varies | At age 65 if vested or an actuarially reduced benefit at age 55 with 10 years of service (defined benefit portion) | $1 \%$ of AFC per year of service (defined benefit portion) <br> The defined contribution portion depends on the member's contribution level and on investment performance. |
| LEOFF Plan 1 | All full-time, fully compensated law enforcement officers and fire fighters (by 9/30/1977) | After five years of eligible service | At age 50 with five years of service | 20 or more years of service: $2 \%$ of Final Average Salary (FAS) per year of service 10-19 years of service: 1.5\% of FAS per year of service <br> $5-9$ years of service: $1 \%$ of FAS per year of service |
| LEOFF Plan 2 | All full-time, fully compensated law enforcement officers, fire fighters and emergency medical technicians (on or after 10/1/1977) | After five years of eligible service | At age 53 with five years of service or a benefit at age 50 with 20 years of service reduced $3 \%$ for each year younger than age 53 | $2 \%$ of FAS per year of service |
| WSPRS Plan 1 | Commissioned employees of the Washington State Patrol (on or after 8/1/1947 and by $12 / 31 / 2002$ ) | No requirement for active members; after five years of eligible service for inactive members | At age 55 or after 25 years of service | $2 \%$ of Average Final Salary (AFS) per year of service, capped at $75 \%$ of AFS |
| WSPRS Plan 2 | Commissioned employees of the Washington State Patrol (on or after 1/1/2003) | No requirement for active members; after five years of eligible service for inactive members | At age 55 or after 25 years of service | $2 \%$ of AFS per year of service, capped at $75 \%$ of AFS |
| JRS | Judges elected or appointed to the Supreme Court, Court of Appeals and superior courts (on or after 8/9/1971 and by $6 / 30 / 1988$; new judges on or after 7/1/1988 join PERS) | After 15 years of service | At age 60 | 15 years of service: $3.5 \%$ of FAS per year of service, capped at $75 \%$ of FAS <br> 10-14 years of service: $3 \%$ of FAS per year of service, capped at $75 \%$ of FAS |
| JRF | Judges elected or appointed to the Supreme Court, Court of Appeals and superior courts (by 8/8/1971) | After 12 years of service | At age 70 with 10 years of service or any age with 18 years of service | Half the monthly salary |

${ }^{1}$ Members who are eligible to choose PERS, SERS or TRS Plan 2 or Plan 3 who do not make a plan choice within 90 days of hire default into PERS, SERS or TRS Plan 3.
Note: DRS publishes handbooks describing the rights and benefits for each system and plan, including disability and survivor benefits. They are available on the DRS website at drs.wa.gov.

## Summary of Actuarial Assumptions and Methods

## 1. Actuarial Assumptions and

Method Selection
Economic Assumptions and Methods: These were developed in accordance with Washington state law and the Pension Funding Council.

Demographic Assumptions and Methods: These were derived from Washington's Office of the State Actuary and are based on the 2007-2012 Experience Studies (adopted July 2014).
Additional assumptions for subsequent events and law changes are current as of the 2016 actuarial valuation report.

## 2. Investment Return

The assumed investment return is $7.7 \%$ per annum for
all systems except LEOFF Plan 2 ( $7.5 \%$ ) and JRS/JRF (3.75\%).

## 3. Mortality Tables

Mortality rates are based on the RP-2000 report's Combined Healthy Table and Combined Disabled Table (except LEOFF Plan 1), which the Society of Actuaries publishes. JRS uses the PERS mortality rates.

The healthy and disabled mortality rates displayed by system have been projected to the valuation date for illustrative purposes only. We use the RP-2000 report's mortality rates combined with $100 \%$ of Scale BB on a generational basis in the valuation.

|  | RP-2000 Mortality Rates |  |  |  | 100\% Scale BB |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Combined |  | Disa |  |  |  |
| Age | Male | Female | Male | Female | Male | Female |
| 20 | 0.0345\% | 0.0191\% | 2.2571\% | 0.7450\% | 0.3000\% | 0.3000\% |
| 25 | 0.0376\% | 0.0207\% | 2.2571\% | 0.7450\% | 0.3000\% | 0.3000\% |
| 30 | 0.0444\% | 0.0264\% | 2.2571\% | 0.7450\% | 0.3000\% | 0.3000\% |
| 35 | 0.0773\% | 0.0475\% | 2.2571\% | 0.7450\% | 0.3000\% | 0.3000\% |
| 40 | 0.1079\% | 0.0706\% | 2.2571\% | 0.7450\% | 0.3000\% | 0.3000\% |
| 45 | 0.1508\% | 0.1124\% | 2.2571\% | 0.7450\% | 0.3000\% | 0.3000\% |
| 50 | 0.2138\% | 0.1676\% | 2.8975\% | 1.1535\% | 0.3000\% | 0.3000\% |
| 55 | 0.3624\% | 0.2717\% | 3.5442\% | 1.6544\% | 0.3000\% | 0.5000\% |
| 60 | 0.6747\% | 0.5055\% | 4.2042\% | 2.1839\% | 0.7000\% | 1.0000\% |
| 65 | 1.2737\% | 0.9706\% | 5.0174\% | 2.8026\% | 1.2000\% | 1.2000\% |
| 70 | 2.2206\% | 1.6742\% | 6.2583\% | 3.7635\% | 1.5000\% | 1.2000\% |
| 75 | 3.7834\% | 2.8106\% | 8.2067\% | 5.2230\% | 1.5000\% | 1.2000\% |
| 80 | 6.4368\% | 4.5879\% | 10.9372\% | 7.2312\% | 1.5000\% | 1.2000\% |
| 85 | 11.0757\% | 7.7446\% | 14.1603\% | 10.0203\% | 1.5000\% | 1.2000\% |
| 90 | 18.3408\% | 13.1682\% | 18.3408\% | 14.0049\% | 1.1000\% | 1.1000\% |
| 95 | 26.7491\% | 19.4509\% | 26.7491\% | 19.4509\% | 0.6000\% | 0.6000\% |
| 100 | 34.4556\% | 23.7467\% | 34.4556\% | 23.7467\% | 0.3000\% | 0.3000\% |
| 105 | 39.7886\% | 29.3116\% | 39.7886\% | 29.3116\% | 0.0000\% | 0.0000\% |
| 110 | 40.0000\% | 36.4617\% | 40.0000\% | 36.4617\% | 0.0000\% | 0.0000\% |
| 115 | 40.0000\% | 40.0000\% | 40.0000\% | 40.0000\% | 0.0000\% | 0.0000\% |
| 120 | 100.0000\% | 100.0000\% | 100.0000\% | 100.0000\% | 0.0000\% | 0.0000\% |

## Summary of Actuarial Assumptions and Methods (cont.)

## 3. Mortality Tables (cont.)

| Healthy Mortality Projected to 2016 |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | PERS, SERS, PSERS Plans |  | TRS Plans |  | LEOFF, WSPRS Plans |  |
| Offsets | -1 | -1 | -3 | -2 | -1 | 1 |
| Age | Male | Female | Male | Female | Male | Female |
| 20 | 0.0315\% | 0.0181\% | 0.0287\% | 0.0179\% | 0.0315\% | 0.0183\% |
| 25 | 0.0358\% | 0.0192\% | 0.0349\% | 0.0188\% | 0.0358\% | 0.0204\% |
| 30 | 0.0393\% | 0.0236\% | 0.0364\% | 0.0224\% | 0.0393\% | 0.0293\% |
| 35 | 0.0669\% | 0.0415\% | 0.0536\% | 0.0376\% | 0.0669\% | 0.0490\% |
| 40 | 0.0973\% | 0.0618\% | 0.0862\% | 0.0570\% | 0.0973\% | 0.0738\% |
| 45 | 0.1331\% | 0.0981\% | 0.1158\% | 0.0893\% | 0.1331\% | 0.1166\% |
| 50 | 0.1901\% | 0.1477\% | 0.1653\% | 0.1367\% | 0.1901\% | 0.1765\% |
| 55 | 0.3046\% | 0.2237\% | 0.2542\% | 0.2037\% | 0.3046\% | 0.2852\% |
| 60 | 0.5313\% | 0.3781\% | 0.4194\% | 0.3340\% | 0.5313\% | 0.4950\% |
| 65 | 0.9299\% | 0.7105\% | 0.7219\% | 0.6305\% | 0.9299\% | 0.9030\% |
| 70 | 1.5549\% | 1.2250\% | 1.2622\% | 1.1083\% | 1.5549\% | 1.5316\% |
| 75 | 2.6618\% | 2.0986\% | 2.1421\% | 1.8935\% | 2.6618\% | 2.5527\% |
| 80 | 4.5484\% | 3.4215\% | 3.6831\% | 3.0991\% | 4.5484\% | 4.1860\% |
| 85 | 7.8346\% | 5.7306\% | 6.3198\% | 5.1527\% | 7.8346\% | 7.1204\% |
| 90 | 13.9427\% | 9.9827\% | 11.3977\% | 8.9899\% | 13.9427\% | 12.1149\% |
| 95 | 22.7680\% | 16.6018\% | 19.6721\% | 15.4787\% | 22.7680\% | 18.6525\% |
| 100 | 31.4709\% | 22.0527\% | 28.5778\% | 21.3436\% | 31.4709\% | 23.3343\% |
| 105 | 39.2003\% | 27.9055\% | 37.1685\% | 26.6044\% | 39.2003\% | 30.7811\% |
| 110 | 40.0000\% | 35.1544\% | 40.0000\% | 33.7441\% | 40.0000\% | 37.6246\% |
| 115 | 40.0000\% | 39.8308\% | 40.0000\% | 39.3507\% | 40.0000\% | 40.0000\% |
| 120 | 100.0000\% | 100.0000\% | 100.0000\% | 100.0000\% | 100.0000\% | 100.0000\% |


| Disabled Mortality Projected to 2016 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | All Plans Except LEOFF Plan 1 |  | LEOFF Plan $1^{1}$ |  |
| Offsets | 0 | 0 | 2 | 2 |
| Age | Male | Female | Male | Female |
| 20 | 2.1512\% | 0.7100\% | 0.0349\% | 0.0185\% |
| 25 | 2.1512\% | 0.7100\% | 0.0364\% | 0.0213\% |
| 30 | 2.1512\% | 0.7100\% | 0.0536\% | 0.0334\% |
| 35 | 2.1512\% | 0.7100\% | 0.0862\% | 0.0528\% |
| 40 | 2.1512\% | 0.7100\% | 0.1158\% | 0.0812\% |
| 45 | 2.1512\% | 0.7100\% | 0.1653\% | 0.1264\% |
| 50 | 2.7615\% | 1.0994\% | 0.2542\% | 0.1923\% |
| 55 | 3.3779\% | 1.5269\% | 0.4473\% | 0.3210\% |
| 60 | 3.7573\% | 1.8595\% | 0.7826\% | 0.5668\% |
| 65 | 4.1361\% | 2.3103\% | 1.3251\% | 1.0027\% |
| 70 | 4.9140\% | 3.1024\% | 2.1421\% | 1.7035\% |
| 75 | 6.4439\% | 4.3056\% | 3.6831\% | 2.8114\% |
| 80 | 8.5879\% | 5.9610\% | 6.3198\% | 4.6406\% |
| 85 | 11.1187\% | 8.2602\% | 10.6821\% | 7.9415\% |
| 90 | 15.3659\% | 11.7333\% | 18.1472\% | 13.2052\% |
| 95 | 24.2936\% | 17.6653\% | 27.2326\% | 19.5481\% |
| 100 | 32.8384\% | 22.6321\% | 35.4240\% | 24.2553\% |
| 105 | 39.7886\% | 29.3116\% | 40.0000\% | 32.2725\% |
| 110 | 40.0000\% | 36.4617\% | 40.0000\% | 38.6015\% |
| 115 | 40.0000\% | 40.0000\% | 40.0000\% | 40.0000\% |
| 120 | 100.0000\% | 100.0000\% | 100.0000\% | 100.0000\% |

${ }^{1}$ LEOFF 1 uses the $R P-2000$ healthy mortality table.

## Summary of Actuarial Assumptions and Methods (cont.)

## 4. Retirement

| Probability of Service Retirement - Members Hired Before May 1, 2013 |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | PERS Plan 1 |  | PERS Plan $2 / 3$ |  |  |  | SERS Plan $2 / 3$ |  |  |  | PSERS Plan 2 |  |
|  |  |  | Service | ess Than 30 Years | Servic Than or | e Greater Equal to 30 Years | Service | ess Than 30 Years | Servic Than 0 | Greater Equal to 30 Years |  |  |
| Age | Male | Female | Male | Female | Male | Female | Male | Female | Male | Female | Male | Female |
| 45 | 0\% | 0\% | 0\% | 0\% | 0\% | 0\% | 0\% | 0\% | 0\% | 0\% | 0\% | 0\% |
| 46 | 0\% | 0\% | 0\% | 0\% | 0\% | 0\% | 0\% | 0\% | 0\% | 0\% | 0\% | 0\% |
| 47 | 46\% | 54\% | 0\% | 0\% | 0\% | 0\% | 0\% | 0\% | 0\% | 0\% | 0\% | 0\% |
| 48 | 55\% | 46\% | 0\% | 0\% | 0\% | 0\% | 0\% | 0\% | 0\% | 0\% | 0\% | 0\% |
| 49 | 50\% | 38\% | 0\% | 0\% | 0\% | 0\% | 0\% | 0\% | 0\% | 0\% | 0\% | 0\% |
| 50 | 45\% | 30\% | 0\% | 0\% | 0\% | 0\% | 0\% | 0\% | 0\% | 0\% | 0\% | 0\% |
| 51 | 40\% | 30\% | 0\% | 0\% | 0\% | 0\% | 0\% | 0\% | 0\% | 0\% | 0\% | 0\% |
| 52 | 40\% | 30\% | 0\% | 0\% | 0\% | 0\% | 0\% | 0\% | 0\% | 0\% | 0\% | 0\% |
| 53 | 40\% | 30\% | 0\% | 0\% | 0\% | 0\% | 0\% | 0\% | 0\% | 0\% | 2\% | 2\% |
| 54 | 40\% | 40\% | 0\% | 0\% | 0\% | 0\% | 0\% | 0\% | 0\% | 0\% | 2\% | 2\% |
| 55 | 17\% | 28\% | 2\% | 2\% | 12\% | 12\% | 1\% | 2\% | 12\% | 12\% | 2\% | 2\% |
| 56 | 17\% | 16\% | 3\% | 2\% | 12\% | 12\% | 2\% | 2\% | 12\% | 12\% | 5\% | 4\% |
| 57 | 17\% | 16\% | 4\% | 2\% | 12\% | 12\% | 3\% | 2\% | 12\% | 12\% | 8\% | 6\% |
| 58 | 17\% | 16\% | 5\% | 2\% | 12\% | 12\% | 4\% | 3\% | 12\% | 12\% | 11\% | 8\% |
| 59 | 20\% | 30\% | 6\% | 4\% | 16\% | 24\% | 5\% | 4\% | 16\% | 25\% | 14\% | 10\% |
| 60 | 16\% | 16\% | 7\% | 6\% | 12\% | 12\% | 6\% | 5\% | 12\% | 12\% | 30\% | 34\% |
| 61 | 23\% | 21\% | 8\% | 13\% | 20\% | 20\% | 15\% | 13\% | 21\% | 20\% | 26\% | 26\% |
| 62 | 30\% | 26\% | 24\% | 20\% | 28\% | 28\% | 24\% | 21\% | 30\% | 28\% | 30\% | 34\% |
| 63 | 22\% | 20\% | 22\% | 18\% | 26\% | 26\% | 22\% | 20\% | 28\% | 26\% | 50\% | 52\% |
| 64 | 28\% | 28\% | 56\% | 56\% | 56\% | 56\% | 56\% | 52\% | 57\% | 48\% | 70\% | 70\% |
| 65 | 34\% | 36\% | 40\% | 40\% | 40\% | 40\% | 39\% | 36\% | 39\% | 36\% | 50\% | 35\% |
| 66 | 30\% | 22\% | 24\% | 24\% | 24\% | 24\% | 22\% | 24\% | 22\% | 24\% | 30\% | 35\% |
| 67 | 26\% | 22\% | 24\% | 24\% | 24\% | 24\% | 22\% | 23\% | 22\% | 23\% | 30\% | 35\% |
| 68 | 22\% | 22\% | 24\% | 24\% | 24\% | 24\% | 22\% | 22\% | 22\% | 22\% | 30\% | 35\% |
| 69 | 22\% | 22\% | 24\% | 24\% | 24\% | 24\% | 22\% | 21\% | 22\% | 21\% | 30\% | 35\% |
| 70 | 22\% | 22\% | 24\% | 24\% | 24\% | 24\% | 22\% | 20\% | 22\% | 20\% | 100\% | 100\% |
| 71 | 22\% | 22\% | 24\% | 24\% | 24\% | 24\% | 20\% | 19\% | 20\% | 19\% | 100\% | 100\% |
| 72 | 22\% | 22\% | 24\% | 24\% | 24\% | 24\% | 18\% | 18\% | 18\% | 18\% | 100\% | 100\% |
| 73 | 22\% | 22\% | 24\% | 24\% | 24\% | 24\% | 16\% | 17\% | 16\% | 17\% | 100\% | 100\% |
| 74 | 22\% | 22\% | 24\% | 24\% | 24\% | 24\% | 16\% | 17\% | 16\% | 17\% | 100\% | 100\% |
| 75 | 22\% | 22\% | 24\% | 24\% | 24\% | 24\% | 16\% | 17\% | 16\% | 17\% | 100\% | 100\% |
| 76 | 22\% | 22\% | 24\% | 24\% | 24\% | 24\% | 16\% | 17\% | 16\% | 17\% | 100\% | 100\% |
| 77 | 22\% | 22\% | 24\% | 24\% | 24\% | 24\% | 16\% | 17\% | 16\% | 17\% | 100\% | 100\% |
| 78 | 22\% | 22\% | 24\% | 24\% | 24\% | 24\% | 16\% | 17\% | 16\% | 17\% | 100\% | 100\% |
| 79 | 22\% | 22\% | 24\% | 24\% | 24\% | 24\% | 16\% | 17\% | 16\% | 17\% | 100\% | 100\% |
| 80 | 100\% | 100\% | 100\% | 100\% | 100\% | 100\% | 100\% | 100\% | 100\% | 100\% | 100\% | 100\% |

Summary of Actuarial Assumptions and Methods (cont.)

## 4. Retirement (cont.)

| Probability of Service Retirement - Members Hired Before May 1, 2013 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | TRS Plan 1 |  |  |  | TRS Plan 2/3 |  |  |  |  |  | LEOFF Plan 1 |  | LEOFF Plan 2 | WSPRS <br> Plan <br> 1/2 |
|  | Service Not Equal to 30 Years |  | Service Equal to 30 Years |  | Service Less Than 30 Years |  | Service Equal to 30 Years |  | Service Greater Than 30 Years |  | $\begin{array}{r} \text { Service } \\ \text { Less } \\ \text { Than } \\ 30 \\ \text { Years } \end{array}$ | Service Greater Than or Equal to 30 Years |  |  |
| Age | Male | Female | Male | Female | Male | Female | Male | Female | Male | Female |  <br> Female |  <br> Female | Male \& Female |  <br> Female |
| 45 | 0\% | 0\% | 0\% | 0\% | 0\% | 0\% | 0\% | 0\% | 0\% | 0\% | 0\% | 0\% | 0\% | 50\% |
| 46 | 0\% | 0\% | 0\% | 0\% | 0\% | 0\% | 0\% | 0\% | 0\% | 0\% | 0\% | 0\% | 0\% | 33\% |
| 47 | 0\% | 0\% | 0\% | 0\% | 0\% | 0\% | 0\% | 0\% | 0\% | 0\% | 0\% | 0\% | 0\% | 33\% |
| 48 | 0\% | 0\% | 0\% | 0\% | 0\% | 0\% | 0\% | 0\% | 0\% | 0\% | 0\% | 0\% | 0\% | 33\% |
| 49 | 0\% | 0\% | 0\% | 0\% | 0\% | 0\% | 0\% | 0\% | 0\% | 0\% | 0\% | 0\% | 0\% | 30\% |
| 50 | 0\% | 0\% | 0\% | 0\% | 0\% | 0\% | 0\% | 0\% | 0\% | 0\% | 7\% | 12\% | 3\% | 27\% |
| 51 | 0\% | 0\% | 0\% | 30\% | 0\% | 0\% | 0\% | 0\% | 0\% | 0\% | 7\% | 12\% | 4\% | 24\% |
| 52 | 0\% | 20\% | 36\% | 30\% | 0\% | 0\% | 0\% | 0\% | 0\% | 0\% | 7\% | 12\% | 5\% | 24\% |
| 53 | 22\% | 20\% | 36\% | 30\% | 0\% | 0\% | 0\% | 0\% | 0\% | 0\% | 7\% | 12\% | 10\% | 24\% |
| 54 | 22\% | 20\% | 36\% | 30\% | 0\% | 0\% | 0\% | 0\% | 0\% | 0\% | 10\% | 16\% | 10\% | 24\% |
| 55 | 22\% | 20\% | 36\% | 30\% | 2\% | 2\% | 22\% | 19\% | 13\% | 12\% | 10\% | 20\% | 10\% | 20\% |
| 56 | 22\% | 20\% | 36\% | 30\% | 2\% | 3\% | 22\% | 21\% | 15\% | 14\% | 10\% | 20\% | 10\% | 20\% |
| 57 | 22\% | 20\% | 36\% | 30\% | 2\% | 4\% | 22\% | 23\% | 17\% | 16\% | 13\% | 20\% | 10\% | 20\% |
| 58 | 22\% | 20\% | 39\% | 30\% | 2\% | 5\% | 28\% | 25\% | 19\% | 18\% | 13\% | 20\% | 15\% | 20\% |
| 59 | 22\% | 26\% | 42\% | 30\% | 4\% | 6\% | 34\% | 27\% | 21\% | 22\% | 13\% | 20\% | 15\% | 33\% |
| 60 | 22\% | 20\% | 42\% | 30\% | 6\% | 7\% | 41\% | 29\% | 23\% | 20\% | 23\% | 25\% | 15\% | 33\% |
| 61 | 22\% | 23\% | 42\% | 40\% | 14\% | 15\% | 48\% | 41\% | 25\% | 22\% | 23\% | 25\% | 19\% | 33\% |
| 62 | 35\% | 26\% | 56\% | 50\% | 22\% | 23\% | 55\% | 53\% | 36\% | 32\% | 23\% | 25\% | 23\% | 33\% |
| 63 | 30\% | 22\% | 48\% | 46\% | 20\% | 21\% | 50\% | 49\% | 33\% | 30\% | 23\% | 25\% | 20\% | 33\% |
| 64 | 25\% | 29\% | 40\% | 46\% | 55\% | 48\% | 55\% | 53\% | 55\% | 49\% | 23\% | 25\% | 20\% | 33\% |
| 65 | 36\% | 36\% | 70\% | 55\% | 48\% | 40\% | 48\% | 40\% | 48\% | 40\% | 23\% | 25\% | 25\% | 100\% |
| 66 | 36\% | 36\% | 70\% | 55\% | 41\% | 32\% | 41\% | 32\% | 41\% | 32\% | 23\% | 25\% | 25\% | 100\% |
| 67 | 32\% | 28\% | 70\% | 55\% | 34\% | 24\% | 34\% | 24\% | 34\% | 24\% | 23\% | 25\% | 25\% | 100\% |
| 68 | 28\% | 28\% | 70\% | 55\% | 27\% | 24\% | 27\% | 24\% | 27\% | 24\% | 23\% | 25\% | 25\% | 100\% |
| 69 | 28\% | 28\% | 70\% | 55\% | 27\% | 42\% | 27\% | 42\% | 27\% | 42\% | 23\% | 25\% | 25\% | 100\% |
| 70 | 22\% | 28\% | 100\% | 55\% | 27\% | 30\% | 27\% | 30\% | 27\% | 30\% | 100\% | 100\% | 100\% | 100\% |
| 71 | 22\% | 28\% | 100\% | 55\% | 41\% | 30\% | 41\% | 30\% | 41\% | 30\% | 100\% | 100\% | 100\% | 100\% |
| 72 | 22\% | 21\% | 100\% | 100\% | 55\% | 30\% | 55\% | 30\% | 55\% | 30\% | 100\% | 100\% | 100\% | 100\% |
| 73 | 22\% | 21\% | 100\% | 100\% | 55\% | 30\% | 55\% | 30\% | 55\% | 30\% | 100\% | 100\% | 100\% | 100\% |
| 74 | 22\% | 21\% | 100\% | 100\% | 55\% | 30\% | 55\% | 30\% | 55\% | 30\% | 100\% | 100\% | 100\% | 100\% |
| 75 | 22\% | 21\% | 100\% | 100\% | 55\% | 30\% | 55\% | 30\% | 55\% | 30\% | 100\% | 100\% | 100\% | 100\% |
| 76 | 22\% | 21\% | 100\% | 100\% | 55\% | 30\% | 55\% | 30\% | 55\% | 30\% | 100\% | 100\% | 100\% | 100\% |
| 77 | 22\% | 21\% | 100\% | 100\% | 55\% | 30\% | 55\% | 30\% | 55\% | 30\% | 100\% | 100\% | 100\% | 100\% |
| 78 | 22\% | 21\% | 100\% | 100\% | 55\% | 30\% | 55\% | 30\% | 55\% | 30\% | 100\% | 100\% | 100\% | 100\% |
| 79 | 22\% | 21\% | 100\% | 100\% | 55\% | 30\% | 55\% | 30\% | 55\% | 30\% | 100\% | 100\% | 100\% | 100\% |
| 80 | 100\% | 100\% | 100\% | 100\% | 100\% | 100\% | 100\% | 100\% | 100\% | 100\% | 100\% | 100\% | 100\% | 100\% |

138 DRS $\nabla$ Actuarial Section - Comprehensive Annual Financial Report

## Summary of Actuarial Assumptions and Methods (cont.)

## 4. Retirement (cont.)

| Probability of Service Retirement - Members Hired on or After May 1, 2013 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | PERS Plan $2 / 3$ |  |  |  | SERS Plan $2 / 3$ |  |  |  | TRS Plan 2/3 |  |  |  |  |  |
|  | Service Less Than 30 Years |  | Service Greater Than or Equal to 30 Years |  | Service Less Than 30 Years |  | Service Greater Than or Equal to 30 Years |  | Service Less Than 30 Years |  | Service Equal to 30 Years |  | Service Greater Than 30 Years |  |
| Age | Male | Female | Male | Female | Male | Female | Male | Female | Male | Female | Male | Female | Male | Female |
| 45 | 0\% | 0\% | 0\% | 0\% | 0\% | 0\% | 0\% | 0\% | 0\% | 0\% | 0\% | 0\% | 0\% | 0\% |
| 46 | 0\% | 0\% | 0\% | 0\% | 0\% | 0\% | 0\% | 0\% | 0\% | 0\% | 0\% | 0\% | 0\% | 0\% |
| 47 | 0\% | 0\% | 0\% | 0\% | 0\% | 0\% | 0\% | 0\% | 0\% | 0\% | 0\% | 0\% | 0\% | 0\% |
| 48 | 0\% | 0\% | 0\% | 0\% | 0\% | 0\% | 0\% | 0\% | 0\% | 0\% | 0\% | 0\% | 0\% | 0\% |
| 49 | 0\% | 0\% | 0\% | 0\% | 0\% | 0\% | 0\% | 0\% | 0\% | 0\% | 0\% | 0\% | 0\% | 0\% |
| 50 | 0\% | 0\% | 0\% | 0\% | 0\% | 0\% | 0\% | 0\% | 0\% | 0\% | 0\% | 0\% | 0\% | 0\% |
| 51 | 0\% | 0\% | 0\% | 0\% | 0\% | 0\% | 0\% | 0\% | 0\% | 0\% | 0\% | 0\% | 0\% | 0\% |
| 52 | 0\% | 0\% | 0\% | 0\% | 0\% | 0\% | 0\% | 0\% | 0\% | 0\% | 0\% | 0\% | 0\% | 0\% |
| 53 | 0\% | 0\% | 0\% | 0\% | 0\% | 0\% | 0\% | 0\% | 0\% | 0\% | 0\% | 0\% | 0\% | 0\% |
| 54 | 0\% | 0\% | 0\% | 0\% | 0\% | 0\% | 0\% | 0\% | 0\% | 0\% | 0\% | 0\% | 0\% | 0\% |
| 55 | 2\% | 2\% | 9\% | 9\% | 1\% | 2\% | 8\% | 9\% | 2\% | 2\% | 16\% | 14\% | 9\% | 9\% |
| 56 | 3\% | 2\% | 9\% | 8\% | 2\% | 2\% | 8\% | 8\% | 2\% | 3\% | 15\% | 15\% | 10\% | 10\% |
| 57 | 4\% | 2\% | 9\% | 8\% | 3\% | 2\% | 9\% | 8\% | 2\% | 4\% | 14\% | 16\% | 11\% | 11\% |
| 58 | 5\% | 2\% | 9\% | 8\% | 4\% | 3\% | 9\% | 8\% | 2\% | 5\% | 17\% | 17\% | 12\% | 13\% |
| 59 | 6\% | 4\% | 12\% | 15\% | 5\% | 4\% | 11\% | 16\% | 4\% | 6\% | 21\% | 18\% | 14\% | 15\% |
| 60 | 7\% | 6\% | 10\% | 9\% | 6\% | 5\% | 9\% | 9\% | 6\% | 7\% | 25\% | 19\% | 15\% | 14\% |
| 61 | 8\% | 13\% | 15\% | 17\% | 15\% | 13\% | 18\% | 17\% | 14\% | 15\% | 33\% | 29\% | 20\% | 19\% |
| 62 | 24\% | 20\% | 26\% | 24\% | 24\% | 21\% | 27\% | 25\% | 22\% | 23\% | 40\% | 39\% | 30\% | 28\% |
| 63 | 22\% | 18\% | 24\% | 22\% | 22\% | 20\% | 25\% | 23\% | 20\% | 21\% | 35\% | 35\% | 27\% | 26\% |
| 64 | 56\% | 56\% | 56\% | 56\% | 56\% | 52\% | 56\% | 50\% | 55\% | 48\% | 55\% | 50\% | 55\% | 48\% |
| 65 | 40\% | 40\% | 40\% | 40\% | 39\% | 36\% | 39\% | 36\% | 48\% | 40\% | 48\% | 40\% | 48\% | 40\% |
| 66 | 24\% | 24\% | 24\% | 24\% | 22\% | 24\% | 22\% | 24\% | 41\% | 32\% | 41\% | 32\% | 41\% | 32\% |
| 67 | 24\% | 24\% | 24\% | 24\% | 22\% | 23\% | 22\% | 23\% | 34\% | 24\% | 34\% | 24\% | 34\% | 24\% |
| 68 | 24\% | 24\% | 24\% | 24\% | 22\% | 22\% | 22\% | 22\% | 27\% | 24\% | 27\% | 24\% | 27\% | 24\% |
| 69 | 24\% | 24\% | 24\% | 24\% | 22\% | 21\% | 22\% | 21\% | 27\% | 42\% | 27\% | 42\% | 27\% | 42\% |
| 70 | 24\% | 24\% | 24\% | 24\% | 22\% | 20\% | 22\% | 20\% | 27\% | 30\% | 27\% | 30\% | 27\% | 30\% |
| 71 | 24\% | 24\% | 24\% | 24\% | 20\% | 19\% | 20\% | 19\% | 41\% | 30\% | 41\% | 30\% | 41\% | 30\% |
| 72 | 24\% | 24\% | 24\% | 24\% | 18\% | 18\% | 18\% | 18\% | 55\% | 30\% | 55\% | 30\% | 55\% | 30\% |
| 73 | 24\% | 24\% | 24\% | 24\% | 16\% | 17\% | 16\% | 17\% | 55\% | 30\% | 55\% | 30\% | 55\% | 30\% |
| 74 | 24\% | 24\% | 24\% | 24\% | 16\% | 17\% | 16\% | 17\% | 55\% | 30\% | 55\% | 30\% | 55\% | 30\% |
| 75 | 24\% | 24\% | 24\% | 24\% | 16\% | 17\% | 16\% | 17\% | 55\% | 30\% | 55\% | 30\% | 55\% | 30\% |
| 76 | 24\% | 24\% | 24\% | 24\% | 16\% | 17\% | 16\% | 17\% | 55\% | 30\% | 55\% | 30\% | 55\% | 30\% |
| 77 | 24\% | 24\% | 24\% | 24\% | 16\% | 17\% | 16\% | 17\% | 55\% | 30\% | 55\% | 30\% | 55\% | 30\% |
| 78 | 24\% | 24\% | 24\% | 24\% | 16\% | 17\% | 16\% | 17\% | 55\% | 30\% | 55\% | 30\% | 55\% | 30\% |
| 79 | 24\% | 24\% | 24\% | 24\% | 16\% | 17\% | 16\% | 17\% | 55\% | 30\% | 55\% | 30\% | 55\% | 30\% |
| 80 | 100\% | 100\% | 100\% | 100\% | 100\% | 100\% | 100\% | 100\% | 100\% | 100\% | 100\% | 100\% | 100\% | 100\% |

## Summary of Actuarial Assumptions and Methods (cont.)

## 5. Disablement

| Probability of Disablement - Table 1 of 2 |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | PERS Plan $1^{1}$ |  | PERS Plan $2 / 3$ |  | SERS Plan 2/3 |  | PSERS Plan 2 |  |  |  |
|  |  |  |  |  |  |  | Service Less | 10 Years | Service | ater Than 10 Years |
| Age | Male | Female | Male | Female | Male | Female | Male | Female | Male | Female |
| 20 | 0.0000\% | 0.0000\% | 0.0000\% | 0.0000\% | 0.0000\% | 0.0000\% | 0.0000\% | 0.0000\% | 0.0000\% | 0.0000\% |
| 25 | 0.0000\% | 0.0000\% | 0.0100\% | 0.0000\% | 0.0000\% | 0.0000\% | 0.0100\% | 0.0000\% | 0.0100\% | 0.0000\% |
| 30 | 0.0000\% | 0.0000\% | 0.0100\% | 0.0100\% | 0.0000\% | 0.0000\% | 0.0100\% | 0.0100\% | 0.0100\% | 0.0100\% |
| 35 | 0.0300\% | 0.0300\% | 0.0200\% | 0.0200\% | 0.0100\% | 0.0200\% | 0.0200\% | 0.0200\% | 0.0200\% | 0.0200\% |
| 40 | 0.0800\% | 0.0700\% | 0.0200\% | 0.0300\% | 0.0300\% | 0.0200\% | 0.0200\% | 0.0300\% | 0.0300\% | 0.0300\% |
| 45 | 0.1500\% | 0.1400\% | 0.0500\% | 0.0500\% | 0.0500\% | 0.0200\% | 0.0500\% | 0.0500\% | 0.0600\% | 0.0600\% |
| 50 | 0.2500\% | 0.3000\% | 0.0900\% | 0.1000\% | 0.1200\% | 0.0600\% | 0.0900\% | 0.1000\% | 0.1200\% | 0.1300\% |
| 55 | 0.8200\% | 0.6400\% | 0.2600\% | 0.2800\% | 0.2800\% | 0.1700\% | 0.2600\% | 0.2800\% | 0.3400\% | 0.3600\% |
| 60 | 0.7500\% | 0.3500\% | 0.7900\% | 0.7700\% | 0.6400\% | 0.5000\% | 0.7900\% | 0.7700\% | 0.0000\% | 0.0000\% |
| 65 | 0.2200\% | 0.0400\% | 0.6100\% | 0.5300\% | 0.5900\% | 0.4100\% | 0.6100\% | 0.5300\% | 0.0000\% | 0.0000\% |
| 70 | 0.0600\% | 0.0000\% | 0.1400\% | 0.1300\% | 0.1300\% | 0.1800\% | 0.0000\% | 0.0000\% | 0.0000\% | 0.0000\% |
| 75 | 0.0200\% | 0.0000\% | 0.0300\% | 0.0300\% | 0.0300\% | 0.0800\% | 0.0000\% | 0.0000\% | 0.0000\% | 0.0000\% |
| 80 | 0.0000\% | 0.0000\% | 0.0000\% | 0.0000\% | 0.0000\% | 0.0000\% | 0.0000\% | 0.0000\% | 0.0000\% | 0.0000\% |

1 10\% of all PERS Plan 1 disabilities are assumed to be duty related.

| Probability of Disablement - Table 2 of 2 |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | TRS Plan 1 |  | TRS Plan 2/3 |  | LEOFF <br> Plan 1 | LEOFF <br> Plan 2 | WSPRS <br> Plan $1 / 2$ |
| Age | Male | Female | Male | Female | Male \& Female | Male \& Female | Male \& Female |
| 20 | 0.0000\% | 0.0000\% | 0.0000\% | 0.0000\% | 0.1000\% | 0.0100\% | 0.0100\% |
| 25 | 0.0100\% | 0.0100\% | 0.0000\% | 0.0000\% | 0.1000\% | 0.0200\% | 0.0100\% |
| 30 | 0.0200\% | 0.0200\% | 0.0000\% | 0.0000\% | 0.8000\% | 0.0500\% | 0.0200\% |
| 35 | 0.0300\% | 0.0300\% | 0.0100\% | 0.0100\% | 1.4900\% | 0.0800\% | 0.0300\% |
| 40 | 0.0400\% | 0.0400\% | 0.0100\% | 0.0100\% | 2.3500\% | 0.1400\% | 0.0600\% |
| 45 | 0.0900\% | 0.1000\% | 0.0200\% | 0.0200\% | 4.0000\% | 0.1800\% | 0.1000\% |
| 50 | 0.1600\% | 0.1700\% | 0.0400\% | 0.0300\% | 7.0000\% | 0.3200\% | 0.1800\% |
| 55 | 0.3300\% | 0.3400\% | 0.1100\% | 0.0800\% | 9.0000\% | 0.5500\% | 0.3200\% |
| 60 | 0.4700\% | 0.4800\% | 0.2500\% | 0.1900\% | 10.0000\% | 0.9500\% | 0.0600\% |
| 65 | 0.5600\% | 0.5700\% | 0.2400\% | 0.1600\% | 10.0000\% | 1.6200\% | 0.0000\% |
| 70 | 0.1500\% | 0.1500\% | 0.0300\% | 0.0300\% | 0.0000\% | 0.0000\% | 0.0000\% |
| 75 | 0.0400\% | 0.0400\% | 0.0000\% | 0.0100\% | 0.0000\% | 0.0000\% | 0.0000\% |
| 80 | 0.0000\% | 0.0000\% | 0.0000\% | 0.0000\% | 0.0000\% | 0.0000\% | 0.0000\% |

Rates have been rounded for display purposes.

## Summary of Actuarial Assumptions and Methods (cont.)

## 6. Other Terminations of Employment

| Probability of Termination |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | PERS |  | SERS |  | PSERS |  | TRS |  | LEOFF | WSPRS |
| Years of Service | Male | Female | Male | Female | Male | Female | Male | Female | Male \& Female | Male \& Female |
| 0 | 26.2400\% | 26.2400\% | 24.4800\% | 19.9000\% | 26.2400\% | 26.2400\% | 11.1000\% | 11.1300\% | 10.7000\% | 4.2300\% |
| 1 | 15.4500\% | 16.7700\% | 15.8800\% | 13.1300\% | 15.4500\% | 16.7700\% | 9.0300\% | 9.4600\% | 4.8100\% | 2.0000\% |
| 2 | 10.0700\% | 11.7000\% | 11.6900\% | 10.2900\% | 10.0700\% | 11.7000\% | 5.9800\% | 7.1700\% | 2.4500\% | 2.0000\% |
| 3 | 7.5200\% | 9.2900\% | 9.9500\% | 7.8600\% | 7.5200\% | 9.2900\% | 4.5100\% | 6.1300\% | 1.9400\% | 2.0000\% |
| 4 | 6.3100\% | 7.6000\% | 8.1100\% | 6.7600\% | 6.3100\% | 7.6000\% | 4.1400\% | 5.3100\% | 1.8700\% | 2.0000\% |
| 5 | 5.4400\% | 6.6500\% | 6.6400\% | 6.2400\% | 5.4400\% | 6.6500\% | 3.6800\% | 4.7100\% | 1.8100\% | 2.0000\% |
| 6 | 4.4900\% | 5.7900\% | 6.0800\% | 5.5600\% | 4.4900\% | 5.7900\% | 2.9500\% | 4.0900\% | 1.7400\% | 1.9000\% |
| 7 | 4.1800\% | 5.3300\% | 5.5600\% | 5.2600\% | 4.1800\% | 5.3300\% | 2.7200\% | 3.6700\% | 1.6800\% | 1.7000\% |
| 8 | 3.8900\% | 4.9100\% | 5.0900\% | 4.9700\% | 3.8900\% | 4.9100\% | 2.5100\% | 3.3000\% | 1.6100\% | 1.6000\% |
| 9 | 3.6200\% | 4.5200\% | 4.6500\% | 4.7500\% | 3.6200\% | 4.5200\% | 2.3100\% | 2.9600\% | 1.5500\% | 1.5100\% |
| 10 | 3.3700\% | 4.1700\% | 4.2600\% | 4.5700\% | 3.3700\% | 4.1700\% | 2.1300\% | 2.6600\% | 1.4800\% | 1.3400\% |
| 11 | 3.1400\% | 3.8400\% | 3.8900\% | 4.4800\% | 3.1400\% | 3.8400\% | 1.9700\% | 2.3900\% | 1.4200\% | 1.2000\% |
| 12 | 2.9200\% | 3.5400\% | 3.5600\% | 4.4200\% | 2.9200\% | 3.5400\% | 1.8200\% | 2.1400\% | 1.3500\% | 1.0800\% |
| 13 | 2.7200\% | 3.2600\% | 3.2600\% | 4.4000\% | 2.7200\% | 3.2600\% | 1.6700\% | 1.9300\% | 1.2900\% | 0.9700\% |
| 14 | 2.5300\% | 3.0000\% | 2.9800\% | 4.2600\% | 2.5300\% | 3.0000\% | 1.5400\% | 1.7300\% | 1.2200\% | 0.8700\% |
| 15 | 2.3600\% | 2.7700\% | 2.7300\% | 4.2700\% | 2.3600\% | 2.7700\% | 1.4200\% | 1.6000\% | 1.1600\% | 0.7800\% |
| 16 | 2.2000\% | 2.5500\% | 2.5000\% | 3.9200\% | 2.2000\% | 2.5500\% | 1.3100\% | 1.5500\% | 1.0900\% | 0.7000\% |
| 17 | 2.0400\% | 2.3500\% | 2.4500\% | 3.6400\% | 2.0400\% | 2.3500\% | 1.2100\% | 1.5000\% | 1.0300\% | 0.6300\% |
| 18 | 1.9000\% | 2.1600\% | 2.4000\% | 3.4600\% | 1.9000\% | 2.1600\% | 1.1500\% | 1.4500\% | 0.9600\% | 0.5600\% |
| 19 | 1.7700\% | 1.9900\% | 2.3500\% | 3.2200\% | 1.7700\% | 1.9900\% | 1.1300\% | 1.4000\% | 0.9000\% | 0.5000\% |
| 20 | 1.5300\% | 1.8000\% | 2.3000\% | 3.0000\% | 1.5300\% | 1.8000\% | 1.0000\% | 1.3000\% | 0.8300\% | 0.4400\% |
| 21 | 1.3200\% | 1.5800\% | 2.2500\% | 2.8000\% | 1.3200\% | 1.5800\% | 0.9500\% | 1.2600\% | 0.7700\% | 0.3800\% |
| 22 | 1.1500\% | 1.3900\% | 2.2000\% | 2.7000\% | 1.1500\% | 1.3900\% | 0.9300\% | 1.1800\% | 0.7000\% | 0.3300\% |
| 23 | 0.9900\% | 1.2200\% | 2.0900\% | 2.6000\% | 0.9900\% | 1.2200\% | 0.9000\% | 1.1100\% | 0.6400\% | 0.2800\% |
| 24 | 0.8600\% | 1.0700\% | 1.8200\% | 2.4800\% | 0.8600\% | 1.0700\% | 0.8800\% | 1.0400\% | 0.5700\% | 0.2300\% |
| 25 | 0.7400\% | 0.9400\% | 1.5900\% | 2.2500\% | 0.7400\% | 0.9400\% | 0.8200\% | 0.9800\% | 0.5100\% | 0.0000\% |
| 26 | 0.6400\% | 0.8300\% | 1.3800\% | 2.0500\% | 0.6400\% | 0.8300\% | 0.7700\% | 0.9200\% | 0.4400\% | 0.0000\% |
| 27 | 0.5500\% | 0.7200\% | 1.2100\% | 1.8700\% | 0.5500\% | 0.7200\% | 0.7100\% | 0.8600\% | 0.3800\% | 0.0000\% |
| 28 | 0.4800\% | 0.6400\% | 1.0500\% | 1.7000\% | 0.4800\% | 0.6400\% | 0.6700\% | 0.8100\% | 0.3100\% | 0.0000\% |
| 29 | 0.4200\% | 0.5600\% | 0.9200\% | 1.5500\% | 0.4200\% | 0.5600\% | 0.6200\% | 0.7600\% | 0.2500\% | 0.0000\% |
| 30+ | 0.3600\% | 0.4900\% | 0.8000\% | 1.4100\% | 0.3600\% | 0.4900\% | 0.5800\% | 0.7200\% | 0.1800\% | 0.0000\% |

Rates have been rounded for display purposes.

## Summary of Actuarial Assumptions and Methods (cont.)

## 7. Future Salaries

The following tables indicate the scale of relative salary values used to estimate future salaries for valuation purposes. In addition to increases in salary due to
promotions and longevity, there is an assumed $3.75 \%$ per annum rate of increase in the general salary level of the membership. The salary ratio describes the final salary over the current salary.

| Step Salary Increases |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| YearsofService | PERS |  | SERS |  | PSERS |  | TRS |  | LEOFF |  | WSPRS |  |
|  | $\begin{array}{r} \% \\ \text { Increase } \end{array}$ | Salary Ratio | $\begin{array}{r} \% \\ \text { Increase } \end{array}$ | Salary Ratio | $\begin{array}{r} \% \\ \text { Increase } \end{array}$ | Salary Ratio | $\begin{array}{r} \% \\ \text { Increase } \end{array}$ | Salary Ratio | $\begin{array}{r} \% \\ \text { Increase } \end{array}$ | Salary <br> Ratio | $\begin{array}{r} \% \\ \text { Increase } \end{array}$ | Salary <br> Ratio |
| 0 | 6.00\% | 1.367 | 6.60\% | 1.382 | 6.00\% | 1.367 | 5.10\% | 1.573 | 10.70\% | 1.827 | 10.70\% | 1.827 |
| 1 | 6.00\% | 1.290 | 6.60\% | 1.297 | 6.00\% | 1.290 | 5.10\% | 1.496 | 10.70\% | 1.650 | 10.70\% | 1.650 |
| 2 | 4.70\% | 1.217 | 3.90\% | 1.217 | 4.70\% | 1.217 | 3.90\% | 1.424 | 7.50\% | 1.491 | 7.50\% | 1.491 |
| 3 | 3.60\% | 1.162 | 2.80\% | 1.171 | 3.60\% | 1.162 | 3.90\% | 1.370 | 5.90\% | 1.387 | 5.90\% | 1.387 |
| 4 | 2.90\% | 1.122 | 2.30\% | 1.139 | 2.90\% | 1.122 | 3.50\% | 1.319 | 3.70\% | 1.310 | 3.70\% | 1.310 |
| 5 | 2.20\% | 1.090 | 2.10\% | 1.113 | 2.20\% | 1.090 | 3.00\% | 1.274 | 2.60\% | 1.263 | 2.60\% | 1.263 |
| 6 | 1.50\% | 1.067 | 1.60\% | 1.090 | 1.50\% | 1.067 | 2.70\% | 1.237 | 1.80\% | 1.231 | 1.80\% | 1.231 |
| 7 | 1.20\% | 1.051 | 1.20\% | 1.073 | 1.20\% | 1.051 | 2.70\% | 1.205 | 1.40\% | 1.209 | 1.40\% | 1.209 |
| 8 | 0.90\% | 1.039 | 1.20\% | 1.061 | 0.90\% | 1.039 | 2.60\% | 1.173 | 1.30\% | 1.192 | 1.30\% | 1.192 |
| 9 | 0.70\% | 1.029 | 0.90\% | 1.048 | 0.70\% | 1.029 | 2.40\% | 1.143 | 1.20\% | 1.177 | 1.20\% | 1.177 |
| 10 | 0.50\% | 1.022 | 0.90\% | 1.039 | 0.50\% | 1.022 | 2.20\% | 1.116 | 1.70\% | 1.163 | 1.70\% | 1.163 |
| 11 | 0.40\% | 1.017 | 0.70\% | 1.029 | 0.40\% | 1.017 | 2.00\% | 1.092 | 1.20\% | 1.144 | 1.20\% | 1.144 |
| 12 | 0.30\% | 1.013 | 0.50\% | 1.022 | 0.30\% | 1.013 | 1.80\% | 1.071 | 1.20\% | 1.130 | 1.20\% | 1.130 |
| 13 | 0.30\% | 1.010 | 0.40\% | 1.017 | 0.30\% | 1.010 | 1.50\% | 1.052 | 1.20\% | 1.117 | 1.20\% | 1.117 |
| 14 | 0.20\% | 1.007 | 0.30\% | 1.013 | 0.20\% | 1.007 | 1.20\% | 1.037 | 1.20\% | 1.104 | 1.20\% | 1.104 |
| 15 | 0.20\% | 1.005 | 0.20\% | 1.010 | 0.20\% | 1.005 | 0.90\% | 1.024 | 1.20\% | 1.090 | 1.20\% | 1.090 |
| 16 | 0.20\% | 1.003 | 0.20\% | 1.008 | 0.20\% | 1.003 | 0.50\% | 1.015 | 1.00\% | 1.078 | 1.00\% | 1.078 |
| 17 | 0.10\% | 1.001 | 0.20\% | 1.006 | 0.10\% | 1.001 | 0.20\% | 1.010 | 1.00\% | 1.067 | 1.00\% | 1.067 |
| 18 | 0.00\% | 1.000 | 0.20\% | 1.004 | 0.00\% | 1.000 | 0.10\% | 1.008 | 1.00\% | 1.056 | 1.00\% | 1.056 |
| 19 | 0.00\% | 1.000 | 0.10\% | 1.002 | 0.00\% | 1.000 | 0.10\% | 1.007 | 1.00\% | 1.046 | 1.00\% | 1.046 |
| 20 | 0.00\% | 1.000 | 0.10\% | 1.001 | 0.00\% | 1.000 | 0.10\% | 1.006 | 1.00\% | 1.036 | 1.00\% | 1.036 |
| 21 | 0.00\% | 1.000 | 0.00\% | 1.000 | 0.00\% | 1.000 | 0.10\% | 1.005 | 0.50\% | 1.025 | 0.50\% | 1.025 |
| 22 | 0.00\% | 1.000 | 0.00\% | 1.000 | 0.00\% | 1.000 | 0.10\% | 1.004 | 0.50\% | 1.020 | 0.50\% | 1.020 |
| 23 | 0.00\% | 1.000 | 0.00\% | 1.000 | 0.00\% | 1.000 | 0.10\% | 1.003 | 0.50\% | 1.015 | 0.50\% | 1.015 |
| 24 | 0.00\% | 1.000 | 0.00\% | 1.000 | 0.00\% | 1.000 | 0.10\% | 1.002 | 0.50\% | 1.010 | 0.50\% | 1.010 |
| 25 | 0.00\% | 1.000 | 0.00\% | 1.000 | 0.00\% | 1.000 | 0.10\% | 1.001 | 0.50\% | 1.005 | 0.50\% | 1.005 |
| 26 | 0.00\% | 1.000 | 0.00\% | 1.000 | 0.00\% | 1.000 | 0.00\% | 1.000 | 0.00\% | 1.000 | 0.00\% | 1.000 |
| 27 | 0.00\% | 1.000 | 0.00\% | 1.000 | 0.00\% | 1.000 | 0.00\% | 1.000 | 0.00\% | 1.000 | 0.00\% | 1.000 |
| 28 | 0.00\% | 1.000 | 0.00\% | 1.000 | 0.00\% | 1.000 | 0.00\% | 1.000 | 0.00\% | 1.000 | 0.00\% | 1.000 |
| 29 | 0.00\% | 1.000 | 0.00\% | 1.000 | 0.00\% | 1.000 | 0.00\% | 1.000 | 0.00\% | 1.000 | 0.00\% | 1.000 |
| $30+$ | 0.00\% | 1.000 | 0.00\% | 1.000 | 0.00\% | 1.000 | 0.00\% | 1.000 | 0.00\% | 1.000 | 0.00\% | 1.000 |

## Summary of Actuarial Assumptions and Methods (cont.)

## 7. Future Salaries (cont.)

| Relative Salary Values | PERS, SERS, PSERS | TRS | LEOFF | WSPRS |
| :--- | ---: | ---: | ---: | ---: |
|  | $4.74 \%$ | $5.05 \%$ | $5.05 \%$ | $4.74 \%$ |
| Annual \% Increase | $0.95 \%$ | $1.25 \%$ | $1.25 \%$ | $0.95 \%$ |
| Attributed to Growth in Active Group Size | $3.75 \%$ | $3.75 \%$ | $3.75 \%$ | $3.75 \%$ |
| Attributed to Effects of Inflation on Salaries |  |  |  |  |

## 8. Other Specific Assumptions That Have a Material Impact on Valuation Results

Members of the following plans increase their Average Final Compensation by an average stated below by cashing out sick leave or annual leave pay or by increasing overtime:

- PERS Plan 1: Up to $4.0 \%$
- TRS Plan 1: Up to $0.75 \%$
- LEOFF Plan 1: Up to $4.5 \%$
- WSPRS Plan 1: Up to $7.0 \%$

Post-retirement Cost-of-Living Adjustments (COLAs) are assumed to be a $3.0 \%$ increase each year for all plans, including:

- LEOFF Plan 1: 3.0\%
- Qualifying PERS Plan 1 and TRS Plan 1 members: COLA on minimum benefit levels

LEOFF Plan 2 members are assumed to become disabled or die due to duty-related injury or illness at a rate that varies with age. For more details, contact the Office of the State Actuary.

Other assumptions include the probability of a vested terminated member not withdrawing his or her contributions from the plan, being married, military service, a single-life annuity refund upon death and beneficiary age. More details on these and other assumptions can be obtained from the Office of the State Actuary.

## 9. Change in Assumptions

Assumption Changes: We updated WSPRS salary assumptions to model legislation signed during the 2016 legislative session (C 28 L 16). This law includes two one-time salary increases that took effect July 1,2016 and 2017, and future salaries that remain competitive with other law enforcement agencies in the state. To reflect this law, we updated our general salary growth assumption to include two short-term increases of $5 \%$ and approximately $11 \%$ in 2016 and 2017, respectively. Additionally, we used the existing LEOFF service-based salary growth assumption table as a proxy for competitive salary growth.

We updated the TRS system growth assumption in light of increased state funding for basic education in response to SHB 2776, which passed during the 2010 legislative session. This change does not impact plan liability. However, it does impact the TRS Plan 1 employer contribution rate, beginning with the adopted 2017-2019 contribution rate.

Method Changes: For all plans except LEOFF Plan 1, we corrected how we value terminated and vested member benefits. Prior to this correction, we applied early retirement factors and the percentage of survivors who select annuities at the time of termination rather than at the time of death.

We improved how we value the Basic Minimum COLA in PERS Plan 1 and TRS Plan 1 for legal-order payees (third-party benefit recipients).

## Summary of Actuarial Assumptions and Methods (cont.)

## 10. Actuarial Cost Method

Valuation assets are at market value with annual gains and losses recognized on a graded scale over an eight-year period. Additionally, the actuarial value of assets may not exceed $130 \%$ nor drop below $70 \%$ of the market value of assets. JRS and JRF use the market value of assets for valuation assets.

PERS Plan 1, TRS Plan 1, LEOFF Plan 1, JRS and JRF Funding (Actual Contributions): A variation of the entry age normal (EAN) cost method is used for PERS Plan 1 and TRS Plan 1. The contribution toward the unfunded actuarially accrued liability (UAAL) has been developed in the valuation as a level percentage of expected future covered payrolls, which will amortize the UAAL over a rolling 10-year period. PERS Plan 1 amortizes the UAAL over all PERS, SERS and PSERS payroll, including projected system growth. TRS Plan 1 amortizes the UAAL over all TRS payroll, including projected system growth. PERS Plan 1 has a minimum UAAL rate of $3.50 \%$, and TRS Plan 1 has a minimum UAAL rate of $5.75 \%$. No contributions are required when LEOFF Plan 1 is fully funded. JRS and JRF are funded on a pay-as-you-go basis.

## PERS Plan 2/3, SERS Plan $2 / 3$, TRS Plan $2 / 3$, PSERS

Plan 2, LEOFF Plan 2 and WSPRS Plan 1/2: The aggregate actuarial cost method is used to calculate contribution rates.

Under this method, the unfunded actuarial present value of fully projected benefits is amortized over the projected earnings of the active group. The entire contribution is normal cost, and no UAAL exists. All gains and losses are amortized over future salaries of current active members.

## PERS Plan 2/3, TRS Plan 2/3, SERS Plan $2 / 3$ and

 PSERS Plan 2 minimum contribution rates are based on $80 \%$ of the entry age normal cost rate (EANC). WSPRS 1/2 minimum contribution rates are based on $70 \%$ of the EANC. Similarly, LEOFF Plan 2 minimum contribution rates are based on $90 \%$ of the EANC.11. Change in Funding Policy

None.

## 12. Material Changes in Benefit Provisions and Contribution Rates

The contribution rates for the 2017-19 biennium are based on the actuarial valuations as of June $30,2015$.

The following laws enacted in 2017 had an impact on the latest actuarial valuation (i.e., legislation that produced supplemental contribution rate impacts):

- Revised definition of pensionable overtime (C 181 L 17): This law allows voluntary overtime to be included in salaries for purposes of calculating retirement benefits in WSPRS.
- Retroactive plan membership exception (C 143 L 17): This law creates a limited exception to PSERS membership rules and allows certain PERS members to transfer their service to PSERS under limited circumstances.


## Schedules of Active Member Valuation Data

## PERS Plan 1

| Valuation Date | Active Members | Annual Payroll in Millions | Average Annual Pay | Annualized \% Increase <br> in Average Pay |  |
| ---: | ---: | ---: | ---: | ---: | ---: |
| $6 / 30 / 2016$ | 3,227 | $\$$ | 197.4 | $\$$ | 61,171 |
| $6 / 30 / 2015$ | 3,927 | 230.7 | 58,748 | $4.1 \%$ |  |
| $6 / 30 / 2014$ | 4,782 | 276.8 | 57,884 | $1.5 \%$ |  |
| $6 / 30 / 2013$ | 5,653 | 317.8 | 56,224 | $3.0 \%$ |  |
| $6 / 30 / 2012$ | 6,635 | 370.8 | 55,878 | $0.6 \%$ |  |
| $6 / 30 / 2011$ | 7,733 | 431.8 | 55,842 | $0.1 \%$ |  |
| $6 / 30 / 2010$ | 9,007 | 507.3 | 56,324 | $(0.9) \%$ |  |
| $6 / 30 / 2009$ | 10,354 | 580.2 | 56,034 | $0.5 \%$ |  |
| $6 / 30 / 2008$ | 11,663 | 638.5 | 54,743 | $2.4 \%$ |  |
| $6 / 30 / 2007$ | 12,975 | 676.4 | 52,130 | $5.0 \%$ |  |

## PERS Plan 2

| Valuation Date | Active Members | Annual Payroll in Millions | Average Annual Pay | Annualized \% Increase <br> in Average Pay |  |
| ---: | ---: | ---: | ---: | ---: | ---: |
| $6 / 30 / 2016$ | 119,677 | $\$$ | $7,569.5$ | $\$$ | 63,249 |
| $6 / 30 / 2015$ | 117,768 | $7,204.6$ | 61,176 | $3.4 \%$ |  |
| $6 / 30 / 2014$ | 116,985 | $7,023.3$ | 60,036 | $1.9 \%$ |  |
| $6 / 30 / 2013$ | 115,751 | $6,758.5$ | 58,388 | $2.8 \%$ |  |
| $6 / 30 / 2012$ | 115,877 | $6,688.2$ | 57,718 | $1.2 \%$ |  |
| $6 / 30 / 2011$ | 117,096 | $6,679.4$ | 57,042 | $1.2 \%$ |  |
| $6 / 30 / 2010$ | 119,826 | $6,748.3$ | 56,317 | $1.3 \%$ |  |
| $6 / 30 / 2009$ | 121,800 | $6,723.9$ | 55,204 | $2.0 \%$ |  |
| $6 / 30 / 2008$ | 123,285 | $6,537.5$ | 53,028 | $4.1 \%$ |  |
| $6 / 30 / 2007$ | 120,625 | $6,004.6$ | 49,779 | $6.5 \%$ |  |
|  |  |  | $2.9 \%$ |  |  |

## PERS Plan 3

| Valuation Date | Active Members | Annual Payroll in Millions | Average Annual Pay | Annualized \% Increase <br> in Average Pay |  |
| ---: | ---: | ---: | ---: | ---: | ---: |
| $6 / 30 / 2016$ | 33,240 | $\$$ | $1,931.6$ | $\$$ | 58,110 |
| $6 / 30 / 2015$ | 31,602 | $1,779.8$ | 56,320 | $3.2 \%$ |  |
| $6 / 30 / 2014$ | 30,694 | $1,695.4$ | 55,235 | $2.0 \%$ |  |
| $6 / 30 / 2013$ | 29,302 | $1,580.8$ | 53,948 | $2.4 \%$ |  |
| $6 / 30 / 2012$ | 28,078 | $1,504.4$ | 53,579 | $0.7 \%$ |  |
| $6 / 30 / 2011$ | 27,588 | $1,468.9$ | 53,245 | $0.6 \%$ |  |
| $6 / 30 / 2010$ | 27,693 | $1,458.0$ | 52,647 | $1.1 \%$ |  |
| $6 / 30 / 2009$ | 27,081 | $1,408.4$ | 52,006 | $1.2 \%$ |  |
| $6 / 30 / 2008$ | 26,720 | $1,331.7$ | 49,840 | $4.3 \%$ |  |
| $6 / 30 / 2007$ | 24,422 | $1,152.0$ | 47,172 | $5.7 \%$ |  |
|  |  |  | $1.5 \%$ |  |  |

## Schedules of Active Member Valuation Data (cont.)

## SERS Plan 2

| Valuation Date | Active Members | Annual Payroll in Millions | Annualized \% Increase <br> in Average Pay |  |
| ---: | ---: | ---: | ---: | ---: |
| $6 / 30 / 2016$ | 25,950 | $\$$ | 817.2 | $\$$ |
| $6 / 30 / 2015$ | 24,479 | 734.3 | $2.0 \%$ |  |
| $6 / 30 / 2014$ | 22,950 | 670.0 | 29,998 |  |
| $6 / 30 / 2013$ | 21,760 | 622.8 | 29,195 |  |
| $6 / 30 / 2012$ | 20,846 | 594.0 | 28,620 |  |
| $6 / 30 / 2011$ | 20,784 | 591.4 | 28,494 |  |
| $6 / 30 / 2010$ | 20,358 | 576.0 | 28,453 |  |
| $6 / 30 / 2009$ | 20,197 | 567.0 | 28,293 |  |
| $6 / 30 / 2008$ | 19,264 | 522.4 | 28,072 |  |
| $6 / 30 / 2007$ | 17,767 | 471.4 | 27,118 | $0.4 \%$ |

## SERS Plan 3

| Valuation Date | Active Members | Annual Payroll in Millions |  | Average Annual Pay |  | Annualized \% Increase in Average Pay |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 6/30/2016 | 32,314 | \$ | 1,042.8 | \$ | 32,269 | 5.0\% |
| 6/30/2015 | 31,326 |  | 962.5 |  | 30,725 | 2.9\% |
| 6/30/2014 | 30,832 |  | 920.7 |  | 29,861 | 2.3\% |
| 6/30/2013 | 30,535 |  | 891.5 |  | 29,195 | 1.3\% |
| 6/30/2012 | 30,712 |  | 884.8 |  | 28,810 | 1.1\% |
| 6/30/2011 | 31,548 |  | 898.6 |  | 28,483 | 1.3\% |
| 6/30/2010 | 31,981 |  | 899.0 |  | 28,110 | 0.9\% |
| 6/30/2009 | 32,277 |  | 899.5 |  | 27,869 | 5.7\% |
| 6/30/2008 | 32,510 |  | 857.1 |  | 26,364 | 7.4\% |
| 6/30/2007 | 33,058 |  | 811.4 |  | 24,544 | 2.7\% |

PSERS Plan 2

| Valuation Date | Active Members | Annual Payroll in Millions | Annualized \% Increase <br> in Average Pay |  |
| ---: | ---: | ---: | ---: | ---: |
| $6 / 30 / 2016$ | 5,483 | $\$$ | 327.3 | $\$$ |
| $6 / 30 / 2015$ | 5,202 | 302.3 | 59,700 |  |
| $6 / 30 / 2014$ | 4,820 | 275.3 | 58,115 |  |
| $6 / 30 / 2013$ | 4,513 | 253.1 | 57,115 |  |
| $6 / 30 / 2012$ | 4,250 | 238.0 | 56,075 |  |
| $6 / 30 / 2011$ | 4,187 | 232.8 | 55,999 |  |
| $6 / 30 / 2010$ | 4,210 | 227.4 | 55,597 |  |
| $6 / 30 / 2009$ | 4,340 | 223.4 | 54,003 |  |
| $6 / 30 / 2008$ | 3,981 | 200.0 | 51,476 |  |
| $6 / 30 / 2007$ | 2,755 | 134.2 | 50,231 | $0.9 \%$ |

## Schedules of Active Member Valuation Data (cont.)

## TRS Plan 1

| Valuation Date | Active Members | Annual Payroll in Millions | Annualized \% Increase <br> in Average Pay |  |
| ---: | ---: | ---: | ---: | ---: |
| $6 / 30 / 2016$ | 967 | $\$$ | 80.7 | $\$$ |
| $4.8 \%$ |  |  |  |  |
| $6 / 30 / 2015$ | 1,353 | 107.7 | 83,405 |  |
| $6 / 30 / 2014$ | 1,824 | 143.3 | 79,603 |  |
| $6 / 30 / 2013$ | 2,393 | 183.2 | 78,549 |  |
| $6 / 30 / 2012$ | 3,019 | 228.5 | 76,549 |  |
| $6 / 30 / 2011$ | 3,740 | 284.2 | 75,681 |  |
| $6 / 30 / 2010$ | 4,591 | 344.0 | 75,994 |  |
| $6 / 30 / 2009$ | 5,204 | 388.8 | 74,930 |  |
| $6 / 30 / 2008$ | 6,061 | 432.4 | 74,707 |  |
| $6 / 30 / 2007$ | 6,331 | 426.1 | 71,340 | 1.6 |

TRS Plan 2

| Valuation Date | Active Members | Annual Payroll in Millions | Annualized \% Increase <br> in Average Pay |  |
| ---: | ---: | ---: | ---: | ---: |
| $6 / 30 / 2016$ | 17,242 | $\$$ | $1,104.4$ | $\$$ |
| $6 / 30 / 2015$ | 15,342 | 945.2 | $64,0 \%$ |  |
| $6 / 30 / 2014$ | 13,632 | 838.9 | 61,610 |  |
| $6 / 30 / 2013$ | 12,071 | 740.2 | 61,538 |  |
| $6 / 30 / 2012$ | 10,849 | 668.8 | 61,320 |  |
| $6 / 30 / 2011$ | 10,285 | 648.2 | 61,648 |  |
| $6 / 30 / 2010$ | 9,442 | 598.8 | 63,025 | $(0.5) \%$ |
| $6 / 30 / 2009$ | 9,174 | 589.3 | 63,423 |  |
| $6 / 30 / 2008$ | 8,103 | 510.8 | 64,239 | $(2.2) \%$ |
| $6 / 30 / 2007$ | 6,752 | 420.1 | 63,043 | 62,213 |

TRS Plan 3

| Valuation Date | Active Members | Annual Payroll in Millions | Annualized \% Increase <br> in Average Pay |  |
| ---: | ---: | ---: | ---: | ---: |
| $6 / 30 / 2016$ | 52,706 | $\$$ | $3,947.3$ | $\$$ |
| $6 / 30 / 2015$ | 52,125 | $3,721.9$ | 74,892 |  |
| $6 / 30 / 2014$ | 51,837 | $3,611.5$ | 71,403 |  |
| $6 / 30 / 2013$ | 51,471 | $3,482.7$ | 69,670 |  |
| $6 / 30 / 2012$ | 51,489 | $3,408.1$ | 67,664 |  |
| $6 / 30 / 2011$ | 52,178 | $3,436.7$ | 66,191 |  |
| $6 / 30 / 2010$ | 52,292 | $3,366.7$ | 65,866 |  |
| $6 / 30 / 2009$ | 53,010 | $3,367.9$ | 64,382 |  |
| $6 / 30 / 2008$ | 52,360 | $3,110.6$ | 63,534 |  |
| $6 / 30 / 2007$ | 51,856 | $2,897.6$ | 59,408 | $2.2 \%$ |

## Schedules of Active Member Valuation Data (cont.)

## LEOFF Plan 1

$\left.\begin{array}{rrrrr}\hline \text { Valuation Date } & \text { Active Members } & \text { Annual Payroll in Millions } & \begin{array}{r}\text { Anerage Annual Pay }\end{array} \\ \hline 6 / 30 / 2016 & 62 & \$ & 6.7 & \$ \\ \hline \text { Annualized \% Increase } \\ \text { in Average Pay }\end{array}\right\}$

## LEOFF Plan 2

| Valuation Date | Active Members | Annual Payroll in Millions |  | Average Annual Pay |  | Annualized \% Increase in Average Pay |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 6/30/2016 | 17,186 | \$ | 1,786.4 | \$ | 103,947 | 1.5\% |
| 6/30/2015 | 17,019 |  | 1,742.9 |  | 102,411 | 3.4\% |
| 6/30/2014 | 16,773 |  | 1,661.3 |  | 99,048 | 3.5\% |
| 6/30/2013 | 16,687 |  | 1,596.8 |  | 95,694 | 2.6\% |
| 6/30/2012 | 16,720 |  | 1,560.1 |  | 93,308 | 2.2\% |
| 6/30/2011 | 16,805 |  | 1,534.7 |  | 91,322 | 2.8\% |
| 6/30/2010 | 16,775 |  | 1,490.1 |  | 88,828 | 4.4\% |
| 6/30/2009 | 16,951 |  | 1,442.5 |  | 85,097 | 5.2\% |
| 6/30/2008 | 16,626 |  | 1,344.9 |  | 80,889 | 5.6\% |
| 6/30/2007 | 16,099 |  | 1,233.7 |  | 76,632 | 2.8\% |

## WSPRS Plan 1

| Valuation Date | Active Members | Annual Payroll in Millions | Annualized \% Increase <br> in Average Pay |  |
| ---: | ---: | ---: | ---: | ---: |
| $6 / 30 / 2016$ | 498 | $\$$ | 46.5 | $\$$ |
| $6 / 30 / 2015$ | 560 | 48.5 | $9.9 \%$ |  |
| $6 / 30 / 2014$ | 609 | 51.6 | 86,535 |  |
| $6 / 30 / 2013$ | 657 | 53.5 | 84,804 |  |
| $6 / 30 / 2012$ | 712 | 57.1 | 81,465 |  |
| $6 / 30 / 2011$ | 767 | 61.3 | 80,263 |  |
| $6 / 30 / 2010$ | 806 | 64.6 | 79,983 |  |
| $6 / 30 / 2009$ | 830 | 66.5 | 80,197 |  |
| $6 / 30 / 2008$ | 851 | 65.3 | 80,115 |  |
| $6 / 30 / 2007$ | 885 | 63.6 | 76,751 | $(0.3) \%$ |

## Schedules of Active Member Valuation Data (cont.)

## WSPRS Plan 2

| Valuation Date | Active Members | Annual Payroll in Millions | Annualized \% Increase <br> in Average Pay |  |
| ---: | ---: | ---: | ---: | ---: |
| $6 / 30 / 2016$ | 470 | $\$$ | 36.4 | $\$$ |
| $6 / 30 / 2015$ | 475 | 33.4 | 77,349 |  |
| $6 / 30 / 2014$ | 435 | 30.1 | 70,238 |  |
| $6 / 30 / 2013$ | 409 | 26.6 | 69,226 |  |
| $6 / 30 / 2012$ | 354 | 23.1 | 65,058 |  |
| $6 / 30 / 2011$ | 315 | 20.2 | 65,165 |  |
| $6 / 30 / 2010$ | 281 | 17.9 | 64,103 |  |
| $6 / 30 / 2009$ | 264 | 16.5 | 63,660 |  |
| $6 / 30 / 2008$ | 234 | 13.4 | 62,583 |  |
| $6 / 30 / 2007$ | 152 | 8.2 | 57,233 | $1.7 \%$ |

JRS

| Valuation Date | Active Members | Annual Payroll in Millions | Average Annual Pay | Annualized \% Increase <br> in Average Pay |  |
| ---: | ---: | ---: | ---: | ---: | ---: |
| $6 / 30 / 2016$ | - | $\$$ | - | $\$$ | - |
| $6 / 30 / 2015$ | - | - | - | $n / \mathrm{a}$ |  |
| $6 / 30 / 2014$ | - | - | - | $\mathrm{n} / \mathrm{a}$ |  |
| $6 / 30 / 2013$ | - | - | - | $(100.0) \%$ |  |
| $6 / 30 / 2012$ | 2 | 0.3 | 148,832 | $(3.3) \%$ |  |
| $6 / 30 / 2011$ | 3 | 0.5 | 153,962 | $1.4 \%$ |  |
| $6 / 30 / 2010$ | 5 | 0.8 | 151,908 | $0.7 \%$ |  |
| $6 / 30 / 2009$ | 9 | 1.4 | 150,870 | $6.0 \%$ |  |
| $6 / 30 / 2008$ | 10 | 1.4 | 142,328 | $5.9 \%$ |  |
| $6 / 30 / 2007$ | 11 | 1.5 | 134,386 | $2.2 \%$ |  |

Averages are based on actual amounts, not rounded amounts.
Source: Washington State Office of the State Actuary

Schedules of Retirees and Beneficiaries Added to and Removed from Rolls

## PERS Plan 1

|  | Added to Rolls |  |  | Removed from Rolls |  |  | Rolls - End of Year |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Year Ended | Number |  | Annual Allowances | Number |  | Annual Allowances | Number |  | Annual <br> Allowances |  | Average Annual Allowance | \% Increase in Annual Allowance |
| 6/30/2016 | 1,269 | \$ | 31,328,241 | 2,271 | \$ | 38,944,553 | 49,268 | \$ | 1,186,959,021 | \$ | 24,092 | 0.0\% |
| 6/30/2015 | 1,427 |  | 34,495,824 | 2,227 |  | 36,970,754 | 50,270 |  | 1,186,941,835 |  | 23,611 | 0.3\% |
| 6/30/2014 | 1,446 |  | 36,218,524 | 2,236 |  | 36,578,459 | 51,070 |  | 1,183,089,117 |  | 23,166 | 0.5\% |
| 6/30/2013 | 1,596 |  | 40,451,809 | 2,408 |  | 38,081,771 | 51,860 |  | 1,177,115,047 |  | 22,698 | 0.7\% |
| 6/30/2012 | 1,643 |  | 42,344,185 | 2,235 |  | 33,066,677 | 52,672 |  | 1,169,187,194 |  | 22,198 | 1.5\% |
| 6/30/2011 | 1,829 |  | 49,678,585 | 2,307 |  | 31,131,283 | 53,264 |  | 1,151,599,650 |  | 21,621 | 3.6\% |
| 6/30/2010 | 1,891 |  | 48,714,779 | 2,296 |  | 30,635,880 | 53,742 |  | 1,112,108,596 |  | 20,693 | 3.5\% |
| 6/30/2009 | 1,824 |  | 47,679,971 | 2,258 |  | 28,065,463 | 54,147 |  | 1,073,997,138 |  | 19,835 | 3.7\% |
| 6/30/2008 | 2,138 |  | 54,916,521 | 2,243 |  | 27,122,179 | 54,581 |  | 1,035,876,249 |  | 18,979 | 4.6\% |
| 6/30/2007 | 1,555 |  | 41,444,329 | 1,703 |  | 19,287,556 | 54,686 |  | 989,949,533 |  | 18,102 | 2.5\% |

PERS Plan 2

|  | Added to Rolls |  |  | Removed from Rolls |  |  | Rolls - End of Year |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Year Ended | Number |  | Annual <br> Allowances | Number |  | Annual Allowances | Number |  | Annual Allowances |  | Average Annual Allowance | \% Increase in Annual Allowance |
| 6/30/2016 | 4,746 | \$ | 107,212,926 | 848 | \$ | 11,025,471 | 42,591 | \$ | 775,137,400 | \$ | 18,200 | 16.3\% |
| 6/30/2015 | 4,388 |  | 96,222,376 | 837 |  | 10,807,578 | 38,693 |  | 666,289,799 |  | 17,220 | 16.2\% |
| 6/30/2014 | 4,500 |  | 98,401,222 | 687 |  | 8,476,109 | 35,142 |  | 573,268,436 |  | 16,313 | 21.5\% |
| 6/30/2013 | 4,167 |  | 82,479,614 | 658 |  | 7,214,843 | 31,329 |  | 472,011,858 |  | 15,066 | 22.1\% |
| 6/30/2012 | 3,685 |  | 67,895,490 | 576 |  | 5,893,503 | 27,820 |  | 386,547,451 |  | 13,895 | 20.6\% |
| 6/30/2011 | 3,206 |  | 59,754,016 | 538 |  | 5,248,298 | 24,711 |  | 320,615,736 |  | 12,975 | 23.2\% |
| 6/30/2010 | 2,732 |  | 45,416,589 | 479 |  | 4,302,408 | 22,043 |  | 260,152,502 |  | 11,802 | 21.8\% |
| 6/30/2009 | 2,461 |  | 37,668,755 | 469 |  | 3,848,756 | 19,790 |  | 213,544,944 |  | 10,791 | 22.0\% |
| 6/30/2008 | 2,215 |  | 27,458,079 | 376 |  | 2,944,525 | 17,798 |  | 175,102,432 |  | 9,838 | 19.4\% |
| 6/30/2007 | 1,363 |  | 16,027,735 | 285 |  | 2,398,926 | 15,959 |  | 146,703,879 |  | 9,193 | 10.3\% |

PERS Plan 3

|  | Added to Rolls |  |  | Removed from Rolls |  |  | Rolls - End of Year |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Year Ended | Number |  | Annual Allowances | Number |  | Annual Allowances | Number |  | Annual Allowances |  | Average Annual Allowance | \% Increase in Annual Allowance |
| 6/30/2016 | 549 | \$ | 6,749,974 | 51 | \$ | 472,466 | 3,684 | \$ | 38,310,147 | \$ | 10,399 | 21.8\% |
| 6/30/2015 | 581 |  | 6,525,449 | 29 |  | 179,408 | 3,186 |  | 31,459,343 |  | 9,874 | 26.8\% |
| 6/30/2014 | 527 |  | 5,973,884 | 32 |  | 179,191 | 2,634 |  | 24,801,688 |  | 9,416 | 33.6\% |
| 6/30/2013 | 414 |  | 4,231,693 | 25 |  | 175,440 | 2,139 |  | 18,566,461 |  | 8,680 | 31.1\% |
| 6/30/2012 | 377 |  | 3,768,015 | 15 |  | 95,645 | 1,750 |  | 14,165,571 |  | 8,095 | 36.6\% |
| 6/30/2011 | 289 |  | 2,750,573 | 15 |  | 115,610 | 1,388 |  | 10,366,918 |  | 7,469 | 36.8\% |
| 6/30/2010 | 211 |  | 1,847,618 | 17 |  | 105,335 | 1,114 |  | 7,575,590 |  | 6,800 | 33.1\% |
| 6/30/2009 | 188 |  | 1,431,296 | 11 |  | 68,324 | 920 |  | 5,691,504 |  | 6,186 | 34.6\% |
| 6/30/2008 | 153 |  | 973,585 | 9 |  | 39,824 | 743 |  | 4,227,474 |  | 5,690 | 31.2\% |
| 6/30/2007 | 120 |  | 767,458 | 7 |  | 36,995 | 599 |  | 3,222,482 |  | 5,380 | 29.4\% |

## Schedules of Retirees and Beneficiaries Added to and Removed from Rolls (cont.)

## SERS Plan 2

|  | Added to Rolls |  |  | Removed from Rolls |  |  | Rolls - End of Year |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Year Ended | Number |  | Annual Allowances | Number |  | Annual Allowances | Number |  | Annual Allowances |  | Average Annual Allowance | \% Increase in Annual Allowance |
| 6/30/2016 | 951 | \$ | 10,196,114 | 133 | \$ | 1,208,588 | 7,380 | \$ | 76,081,031 | \$ | 10,309 | 15.6\% |
| 6/30/2015 | 865 |  | 9,200,978 | 99 |  | 851,704 | 6,562 |  | 65,840,085 |  | 10,034 | 16.1\% |
| 6/30/2014 | 796 |  | 8,658,343 | 84 |  | 710,331 | 5,796 |  | 56,703,435 |  | 9,783 | 19.2\% |
| 6/30/2013 | 729 |  | 7,922,612 | 82 |  | 669,493 | 5,084 |  | 47,586,513 |  | 9,360 | 21.1\% |
| 6/30/2012 | 685 |  | 7,196,654 | 71 |  | 556,280 | 4,437 |  | 39,304,032 |  | 8,858 | 22.0\% |
| 6/30/2011 | 560 |  | 5,481,726 | 48 |  | 331,627 | 3,823 |  | 32,224,861 |  | 8,429 | 21.8\% |
| 6/30/2010 | 482 |  | 4,325,732 | 41 |  | 339,774 | 3,311 |  | 26,455,961 |  | 7,990 | 20.9\% |
| 6/30/2009 | 454 |  | 3,836,380 | 32 |  | 197,969 | 2,870 |  | 21,890,772 |  | 7,627 | 23.0\% |
| 6/30/2008 | 450 |  | 3,526,561 | 28 |  | 186,696 | 2,448 |  | 17,799,193 |  | 7,271 | 26.1\% |
| 6/30/2007 | 231 |  | 1,721,633 | 20 |  | 112,108 | 2,026 |  | 14,110,609 |  | 6,965 | 13.0\% |

## SERS Plan 3

|  | Added to Rolls |  |  | Removed from Rolls |  |  | Rolls - End of Year |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Year Ended | Number |  | Annual Allowances | Number |  | Annual <br> Allowances | Number |  | Annual Allowances |  | Average Annual Allowance | \% Increase in Annual Allowance |
| 6/30/2016 | 1,020 | \$ | 6,004,617 | 62 | \$ | 332,298 | 6,708 | \$ | 37,605,743 | \$ | 5,606 | 20.0\% |
| 6/30/2015 | 981 |  | 6,027,951 | 56 |  | 226,130 | 5,750 |  | 31,328,571 |  | 5,448 | 24.4\% |
| 6/30/2014 | 875 |  | 5,235,885 | 45 |  | 185,272 | 4,825 |  | 25,178,188 |  | 5,218 | 28.1\% |
| 6/30/2013 | 803 |  | 4,385,800 | 22 |  | 91,177 | 3,995 |  | 19,657,323 |  | 4,920 | 31.1\% |
| 6/30/2012 | 636 |  | 3,285,871 | 27 |  | 105,484 | 3,214 |  | 14,992,908 |  | 4,665 | 28.5\% |
| 6/30/2011 | 553 |  | 3,038,825 | 21 |  | 73,455 | 2,605 |  | 11,667,747 |  | 4,479 | 37.2\% |
| 6/30/2010 | 332 |  | 1,614,718 | 18 |  | 51,140 | 2,073 |  | 8,504,426 |  | 4,102 | 25.6\% |
| 6/30/2009 | 346 |  | 1,552,969 | 12 |  | 36,518 | 1,759 |  | 6,768,866 |  | 3,848 | 31.9\% |
| 6/30/2008 | 325 |  | 1,370,967 | 15 |  | 57,309 | 1,425 |  | 5,130,021 |  | 3,600 | 37.5\% |
| 6/30/2007 | 178 |  | 695,857 | 6 |  | 14,025 | 1,115 |  | 3,730,124 |  | 3,345 | 22.7\% |

PSERS Plan 2

|  | Added to Rolls |  |  | Removed from Rolls |  |  | Rolls - End of Year |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Year Ended | Number |  | Annual Allowances | Number |  | Annual Allowances | Number |  | Annual Allowances |  | Average Annual Allowance | \% Increase in Annual Allowance |
| 6/30/2016 | 29 | \$ | 292,170 | 1 | \$ | 8,993 | 108 | \$ | 757,267 | \$ | 7,012 | 62.4\% |
| 6/30/2015 | 19 |  | 141,388 | 1 |  | 4,020 | 80 |  | 466,218 |  | 5,828 | 43.2\% |
| 6/30/2014 | 19 |  | 137,777 | - |  | - | 62 |  | 325,492 |  | 5,250 | 76.0\% |
| 6/30/2013 | 16 |  | 98,050 | - |  | - | 43 |  | 184,938 |  | 4,301 | 116.0\% |
| 6/30/2012 | 12 |  | 46,142 | - |  | - | 27 |  | 85,628 |  | 3,171 | 117.6\% |
| 6/30/2011 | 8 |  | 25,844 | - |  | - | 15 |  | 39,355 |  | 2,624 | 192.3\% |
| 6/30/2010 | 5 |  | 10,383 | - |  | - | 7 |  | 13,645 |  | 1,924 | 339.7\% |
| 6/30/2009 | 1 |  | 2,409 | - |  | - | 2 |  | 3,062 |  | 1,531 | 368.9\% |
| 6/30/2008 | 1 |  | 653 | - |  | - | 1 |  | 653 |  | 653 | 0.0\% |
| 6/30/2007 | - |  | - | - |  | - | - |  | - |  | - | n/a |

Schedules of Retirees and Beneficiaries Added to and Removed from Rolls (cont.)

## TRS Plan 1

|  | Added to Rolls |  |  | Removed from Rolls |  |  | Rolls - End of Year |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Year Ended | Number |  | Annual Allowances | Number |  | Annual Allowances | Number |  | Annual <br> Allowances |  | Average Annual Allowance | \% Increase in Annual Allowance |
| 6/30/2016 | 646 | \$ | 20,261,374 | 1,098 | \$ | 22,164,314 | 34,787 | \$ | 897,662,583 | \$ | 25,805 | 0.0\% |
| 6/30/2015 | 745 |  | 23,336,449 | 1,145 |  | 22,271,095 | 35,239 |  | 897,354,684 |  | 25,465 | 0.3\% |
| 6/30/2014 | 834 |  | 27,345,364 | 1,107 |  | 21,680,225 | 35,639 |  | 894,749,810 |  | 25,106 | 0.8\% |
| 6/30/2013 | 889 |  | 28,516,769 | 1,031 |  | 19,814,149 | 35,912 |  | 887,718,032 |  | 24,719 | 1.2\% |
| 6/30/2012 | 1,007 |  | 32,011,915 | 1,071 |  | 19,959,639 | 36,054 |  | 877,408,017 |  | 24,336 | 1.6\% |
| 6/30/2011 | 1,161 |  | 37,444,310 | 1,058 |  | 18,622,578 | 36,118 |  | 863,605,633 |  | 23,911 | 4.0\% |
| 6/30/2010 | 947 |  | 27,363,548 | 964 |  | 16,376,709 | 36,015 |  | 829,998,363 |  | 23,046 | 3.2\% |
| 6/30/2009 | 1,193 |  | 33,860,034 | 1,040 |  | 16,463,852 | 36,032 |  | 804,572,786 |  | 22,329 | 3.9\% |
| 6/30/2008 | 1,564 |  | 43,927,319 | 1,069 |  | 16,443,154 | 35,879 |  | 774,340,924 |  | 21,582 | 5.2\% |
| 6/30/2007 | 370 |  | 6,636,490 | 731 |  | 11,088,213 | 35,384 |  | 735,750,464 |  | 20,793 | (0.7)\% |

TRS Plan 2

|  | Added to Rolls |  |  | Removed from Rolls |  |  | Rolls - End of Year |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Year Ended | Number |  | Annual Allowances | Number |  | Annual Allowances | Number |  | Annual <br> Allowances |  | Average Annual Allowance | \% Increase in Annual Allowance |
| 6/30/2016 | 444 | \$ | 11,780,089 | 62 | \$ | 1,099,744 | 4,687 | \$ | 104,820,736 | \$ | 22,364 | 13.6\% |
| 6/30/2015 | 452 |  | 11,891,498 | 41 |  | 703,305 | 4,305 |  | 92,291,775 |  | 21,438 | 15.4\% |
| 6/30/2014 | 493 |  | 12,353,083 | 44 |  | 699,410 | 3,894 |  | 79,974,743 |  | 20,538 | 20.0\% |
| 6/30/2013 | 422 |  | 10,037,156 | 37 |  | 626,458 | 3,445 |  | 66,622,927 |  | 19,339 | 19.6\% |
| 6/30/2012 | 424 |  | 9,371,702 | 21 |  | 336,553 | 3,060 |  | 55,682,494 |  | 18,197 | 20.8\% |
| 6/30/2011 | 362 |  | 7,470,573 | 25 |  | 307,667 | 2,657 |  | 46,085,043 |  | 17,345 | 21.3\% |
| 6/30/2010 | 249 |  | 5,208,999 | 33 |  | 383,886 | 2,320 |  | 37,984,977 |  | 16,373 | 17.7\% |
| 6/30/2009 | 246 |  | 4,939,050 | 21 |  | 265,215 | 2,104 |  | 32,273,082 |  | 15,339 | 20.2\% |
| 6/30/2008 | 244 |  | 4,076,287 | 29 |  | 323,867 | 1,879 |  | 26,844,925 |  | 14,287 | 19.5\% |
| 6/30/2007 | 105 |  | 1,426,931 | 15 |  | 141,168 | 1,664 |  | 22,470,949 |  | 13,504 | 6.2\% |

TRS Plan 3


Schedules of Retirees and Beneficiaries Added to and Removed from Rolls (cont.)

## LEOFF Plan 1

|  | Added to Rolls |  |  | Removed from Rolls |  |  | Rolls - End of Year |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Year Ended | Number |  | Annual Allowances | Number |  | Annual <br> Allowances | Number |  | Annual Allowances |  | Average Annual Allowance | \% Increase in Annual Allowance |
| 6/30/2016 | 132 | \$ | 7,074,185 | 261 | \$ | 11,649,210 | 7,378 | \$ | 359,684,499 | \$ | 48,751 | (0.4)\% |
| 6/30/2015 | 153 |  | 8,756,563 | 251 |  | 10,586,867 | 7,507 |  | 361,094,205 |  | 48,101 | 1.4\% |
| 6/30/2014 | 124 |  | 6,809,466 | 248 |  | 10,922,714 | 7,605 |  | 356,280,207 |  | 46,848 | 0.0\% |
| 6/30/2013 | 146 |  | 7,890,561 | 262 |  | 10,485,897 | 7,729 |  | 356,229,923 |  | 46,090 | 1.7\% |
| 6/30/2012 | 162 |  | 9,325,170 | 249 |  | 9,732,437 | 7,845 |  | 350,199,616 |  | 44,640 | 3.0\% |
| 6/30/2011 | 136 |  | 7,331,503 | 212 |  | 8,121,870 | 7,932 |  | 340,160,704 |  | 42,885 | 0.5\% |
| 6/30/2010 | 167 |  | 9,065,821 | 246 |  | 9,545,410 | 8,008 |  | 338,503,613 |  | 42,271 | 0.3\% |
| 6/30/2009 | 156 |  | 8,226,656 | 203 |  | 7,267,042 | 8,087 |  | 337,505,287 |  | 41,734 | 4.7\% |
| 6/30/2008 | 189 |  | 9,377,706 | 216 |  | 7,617,139 | 8,134 |  | 322,365,013 |  | 39,632 | 4.3\% |
| 6/30/2007 | 153 |  | 7,238,334 | 164 |  | 5,380,231 | 8,161 |  | 309,181,019 |  | 37,885 | 4.2\% |

## LEOFF Plan 2

|  | Added to Rolls |  |  | Removed from Rolls |  |  | Rolls - End of Year |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Year Ended | Number |  | Annual Allowances | Number |  | Annual <br> Allowances | Number |  | Annual <br> Allowances |  | Average Annual Allowance | \% Increase in Annual Allowance |
| 6/30/2016 | 586 | \$ | 31,191,906 | 37 | \$ | 1,239,165 | 4,259 | \$ | 190,425,480 | \$ | 44,711 | 21.2\% |
| 6/30/2015 | 497 |  | 25,745,170 | 22 |  | 891,857 | 3,710 |  | 157,094,929 |  | 42,344 | 20.4\% |
| 6/30/2014 | 478 |  | 23,448,749 | 25 |  | 779,746 | 3,235 |  | 130,428,517 |  | 40,318 | 24.0\% |
| 6/30/2013 | 457 |  | 21,512,439 | 19 |  | 571,580 | 2,782 |  | 105,193,996 |  | 37,812 | 28.5\% |
| 6/30/2012 | 355 |  | 16,447,618 | 26 |  | 705,284 | 2,344 |  | 81,874,896 |  | 34,930 | 25.1\% |
| 6/30/2011 | 389 |  | 15,718,562 | 13 |  | 333,059 | 2,015 |  | 65,459,659 |  | 32,486 | 33.8\% |
| 6/30/2010 | 285 |  | 10,278,954 | 13 |  | 332,332 | 1,639 |  | 48,926,257 |  | 29,851 | 29.2\% |
| 6/30/2009 | 243 |  | 8,478,268 | 10 |  | 216,179 | 1,367 |  | 37,876,404 |  | 27,708 | 31.0\% |
| 6/30/2008 | 227 |  | 6,985,801 | 17 |  | 279,908 | 1,134 |  | 28,904,921 |  | 25,489 | 33.7\% |
| 6/30/2007 | 153 |  | 4,353,299 | 8 |  | 144,930 | 924 |  | 21,611,590 |  | 23,389 | 24.3\% |


| WSPRS Plan l l |  |  |  |  |  |
| ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |

## Schedules of Retirees and Beneficiaries Added to and Removed from Rolls (cont.)

| JRS |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Added to Rolls |  |  | Removed from Rolls |  |  | Rolls - End of Year |  |  |  | Average Annual <br> Allowance | \% Increase in Annual Allowance |
| Year Ended | Number |  | Annual Allowances | Number |  | Annual Allowances | Number |  | Annual Allowances |  |  |  |
| 6/30/2016 | 4 | \$ | 227,622 | 6 | \$ | 591,387 | 104 | \$ | 8,952,238 | \$ | 86,079 | (2.5)\% |
| 6/30/2015 | 3 |  | 166,803 | 5 |  | 414,930 | 106 |  | 9,185,874 |  | 86,659 | (1.3)\% |
| 6/30/2014 | - |  | - | 6 |  | 366,825 | 108 |  | 9,308,919 |  | 86,194 | (1.4)\% |
| 6/30/2013 | 7 |  | 476,184 | 12 |  | 877,160 | 114 |  | 9,440,927 |  | 82,815 | (1.5)\% |
| 6/30/2012 | 4 |  | 317,799 | 9 |  | 670,577 | 119 |  | 9,584,381 |  | 80,541 | (1.7)\% |
| 6/30/2011 | 4 |  | 285,689 | 5 |  | 400,572 | 124 |  | 9,745,840 |  | 78,595 | 0.1\% |
| 6/30/2010 | 10 |  | 700,776 | 9 |  | 626,362 | 125 |  | 9,733,805 |  | 77,870 | 3.5\% |
| 6/30/2009 | 4 |  | 276,433 | 7 |  | 497,241 | 124 |  | 9,401,392 |  | 75,818 | 0.4\% |
| 6/30/2008 | 4 |  | 267,383 | 7 |  | 374,274 | 127 |  | 9,359,660 |  | 73,698 | 1.7\% |
| 6/30/2007 | 3 |  | 160,260 | 5 |  | 392,686 | 130 |  | 9,201,726 |  | 70,783 | (2.5)\% |

## JRF

|  | Added to Rolls |  |  | Removed from Rolls |  |  | Rolls - End of Year |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Year Ended | Number |  | Annual <br> Allowances | Number |  | Annual Allowances | Number |  | Annual <br> Allowances |  | Average Annual Allowance | \% Increase in Annual Allowance |
| 6/30/2016 | - | \$ | - | 1 | \$ | - | 11 | \$ | 438,882 | \$ | 39,898 | (1.2)\% |
| 6/30/2015 | - |  | - | - |  | - | 12 |  | 444,282 |  | 37,024 | 0.0\% |
| 6/30/2014 | - |  | - | - |  | - | 12 |  | 444,282 |  | 37,024 | 0.0\% |
| 6/30/2013 | - |  | - | - |  | - | 12 |  | 444,282 |  | 37,024 | (7.7)\% |
| 6/30/2012 | - |  | - | 1 |  | 18,329 | 12 |  | 481,389 |  | 40,116 | (3.7)\% |
| 6/30/2011 | - |  | - | - |  | - | 13 |  | 499,719 |  | 38,440 | 0.0\% |
| 6/30/2010 | - |  | - | - |  | - | 13 |  | 499,719 |  | 38,440 | 0.0\% |
| 6/30/2009 | - |  | - | - |  | - | 13 |  | 499,719 |  | 38,440 | 0.0\% |
| 6/30/2008 | - |  | - | 2 |  | - | 13 |  | 499,719 |  | 38,440 | (13.6)\% |
| 6/30/2007 | - |  | - | - |  | 75,233 | 15 |  | 578,135 |  | 38,542 | 0.0\% |

[^16]
## Solvency Tests

## PERS Plan 1

Dollars in Millions


PERS Plan 2/3
Dollars in Millions

|  | Accrued Liabilities (Aggregate Cost Method) |  | Portion of Accrued Liabilities Covered by Assets |  |
| ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |

SERS Plan 2/3
Dollars in Millions

| Accrued Liabilities (Aggregate Cost Method) |  |  |  |  |  |  |  | Portion of Accrued Liabilities Covered by Assets |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Valuation Date | (1) Active Member Contributions |  | (2) Inactive Member Liability |  | (3) Excess Accrued Liability |  | $(1+2+3)$ <br> Total Accrued Liability |  | Valuation Assets | (1) Active Member Contributions | (2) Inactive Member Liability | (3) Excess <br> Accrued Liability |
| 6/30/2016 | \$ 377.0 | \$ | 2,011.1 | \$ | 1,793.1 | \$ | 4,181.2 | \$ | 4,181.2 | 100\% | 100\% | 100\% |
| 6/30/2015 | 347.4 |  | 1,751.4 |  | 1,801.8 |  | 3,900.6 |  | 3,900.6 | 100\% | 100\% | 100\% |
| 6/30/2014 | 328.0 |  | 1,492.9 |  | 1,803.0 |  | 3,623.8 |  | 3,623.8 | 100\% | 100\% | 100\% |
| 6/30/2013 | 309.2 |  | 1,267.1 |  | 1,758.3 |  | 3,334.6 |  | 3,334.6 | 100\% | 100\% | 100\% |
| 6/30/2012 | 295.3 |  | 1,018.0 |  | 1,787.0 |  | 3,100.3 |  | 3,100.3 | 100\% | 100\% | 100\% |
| 6/30/2011 | 279.8 |  | 862.1 |  | 1,730.3 |  | 2,872.1 |  | 2,872.1 | 100\% | 100\% | 100\% |
| 6/30/2010 | 266.2 |  | 713.8 |  | 1,684.1 |  | 2,664.1 |  | 2,664.1 | 100\% | 100\% | 100\% |
| 6/30/2009 | 251.5 |  | 613.7 |  | 1,637.9 |  | 2,503.2 |  | 2,503.2 | 100\% | 100\% | 100\% |
| 6/30/2008 | 226.5 |  | 523.7 |  | 1,552.4 |  | 2,302.6 |  | 2,302.6 | 100\% | 100\% | 100\% |
| 6/30/2007 | 207.1 |  | 431.4 |  | 1,494.9 |  | 2,133.4 |  | 2,133.4 | 100\% | 100\% | 100\% |

## Solvency Tests (cont.)

PSERS Plan 2
Dollars in Millions

| Accrued Liabilities (Aggregate Cost Method) |  |  |  |  |  |  | Portion of Accrued Liabilities Covered by Assets |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Valuation Date | (1) Active Member Contributions | (2) Inactive Member Liability |  | (3) Excess <br> Accrued Liability |  | $(1+2+3)$ <br> Total Accrued Liability |  | Valuation Assets | (1) Active Member Contributions | (2) Inactive Member Liability | (3) Excess Accrued Liability |
| 6/30/2016 | \$ 147.9 | \$ 43.1 | \$ | 210.6 | \$ | 401.6 | \$ | 401.6 | 100\% | 100\% | 100\% |
| 6/30/2015 | 128.4 | 29.5 |  | 180.1 |  | 337.9 |  | 337.9 | 100\% | 100\% | 100\% |
| 6/30/2014 | 109.5 | 21.5 |  | 147.2 |  | 278.2 |  | 278.2 | 100\% | 100\% | 100\% |
| 6/30/2013 | 92.5 | 14.7 |  | 117.1 |  | 224.2 |  | 224.2 | 100\% | 100\% | 100\% |
| 6/30/2012 | 76.5 | 9.2 |  | 94.8 |  | 180.5 |  | 180.5 | 100\% | 100\% | 100\% |
| 6/30/2011 | 62.0 | 6.1 |  | 72.6 |  | 140.7 |  | 140.7 | 100\% | 100\% | 100\% |
| 6/30/2010 | 46.9 | 4.2 |  | 51.7 |  | 102.9 |  | 102.9 | 100\% | 100\% | 100\% |
| 6/30/2009 | 32.4 | 2.0 |  | 34.8 |  | 69.2 |  | 69.2 | 100\% | 100\% | 100\% |
| 6/30/2008 | 18.1 | 0.9 |  | 19.7 |  | 38.7 |  | 38.7 | 100\% | 100\% | 100\% |
| 6/30/2007 | 6.7 | 0.2 |  | 6.9 |  | 13.7 |  | 13.7 | 100\% | 100\% | 100\% |

## TRS Plan 1

Dollars in Millions

| Accrued Liabilities (Entry Age Cost Method) |  |  |  |  |  |  | Portion of Accrued Liabilities Covered by Assets |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Valuation Date | (1) Active Member Contributions | (2) Inactive Member Liability |  | (3) Excess <br> Accrued Liability |  | $(1+2+3)$ <br> Total Accrued Liability |  | Valuation Assets | (1) Active Member Contributions | (2) Inactive Member Liability | (3) Excess <br> Accrued Liability |
| 6/30/2016 | \$ 209.6 | \$ 8,494.7 | \$ | 195.7 | \$ | 8,900.0 | \$ | 5,439.6 | 100\% | 62\% | 0\% |
| 6/30/2015 | 277.0 | 8,562.6 |  | 268.0 |  | 9,107.5 |  | 5,870.5 | 100\% | 65\% | 0\% |
| 6/30/2014 | 347.4 | 8,530.4 |  | 372.3 |  | 9,250.1 |  | 6,352.8 | 100\% | 70\% | 0\% |
| 6/30/2013 | 433.7 | 8,511.5 |  | 441.0 |  | 9,386.1 |  | 6,717.1 | 100\% | 74\% | 0\% |
| 6/30/2012 | 509.9 | 7,952.4 |  | 534.4 |  | 8,996.7 |  | 7,144.5 | 100\% | 83\% | 0\% |
| 6/30/2011 | 598.1 | 7,934.2 |  | 662.4 |  | 9,194.7 |  | 7,485.0 | 100\% | 87\% | 0\% |
| 6/30/2010 | 663.6 | 7,586.5 |  | 870.0 |  | 9,120.0 |  | 7,791.3 | 100\% | 94\% | 0\% |
| 6/30/2009 | 725.6 | 8,821.7 |  | 1,264.8 |  | 10,812.1 |  | 8,146.2 | 100\% | 84\% | 0\% |
| 6/30/2008 | 790.2 | 8,564.6 |  | 1,399.1 |  | 10,753.9 |  | 8,262.3 | 100\% | 87\% | 0\% |
| 6/30/2007 | 766.4 | 8,670.1 |  | 1,389.0 |  | 10,825.6 |  | 8,302.3 | 100\% | 87\% | 0\% |

TRS Plan 2/3
Dollars in Millions

| Accrued Liabilities (Aggregate Cost Method) |  |  |  |  | Portion of Accrued Liabilities Covered by Assets |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Valuation Date |  | (2) Inactive Member Liability | (3) Excess Accrued Liability | $\begin{array}{r} (1+2+3) \\ \text { Total Accrued } \\ \text { Liability } \end{array}$ |  | Valuation Assets | $\begin{array}{r} \text { (1) Active } \\ \text { Member } \\ \text { Contributions } \end{array}$ | (2) Inactive Member Liability | (3) Excess Accrued Liability |
| 6/30/2016 | \$ 522.9 | \$ 4,019.4 | \$ 6,179.5 | \$ 10,721.8 | \$ | 10,721.8 | 100\% | 100\% | 100\% |
| 6/30/2015 | 474.6 | 3,443.8 | 6,034.4 | 9,952.8 |  | 9,952.8 | 100\% | 100\% | 100\% |
| 6/30/2014 | 448.5 | 2,858.6 | 5,885.9 | 9,193.0 |  | 9,193.0 | 100\% | 100\% | 100\% |
| 6/30/2013 | 424.4 | 2,335.8 | 5,645.8 | 8,406.1 |  | 8,406.1 | 100\% | 100\% | 100\% |
| 6/30/2012 | 402.9 | 1,831.7 | 5,523.4 | 7,757.9 |  | 7,757.9 | 100\% | 100\% | 100\% |
| 6/30/2011 | 382.6 | 1,516.3 | 5,241.7 | 7,140.6 |  | 7,140.6 | 100\% | 100\% | 100\% |
| 6/30/2010 | 366.3 | 1,224.5 | 5,002.5 | 6,593.3 |  | 6,593.3 | 100\% | 100\% | 100\% |
| 6/30/2009 | 349.7 | 1,032.2 | 4,778.1 | 6,160.0 |  | 6,160.0 | 100\% | 100\% | 100\% |
| 6/30/2008 | 322.2 | 883.1 | 4,475.8 | 5,681.0 |  | 5,681.0 | 100\% | 100\% | 100\% |
| 6/30/2007 | 302.6 | 790.8 | 4,183.7 | 5,277.0 |  | 5,277.0 | 100\% | 100\% | 100\% |

[^17]
## Solvency Tests (cont.)

## LEOFF Plan 1

Dollars in Millions

|  | Accrued Liabilities (Entry Age Cost Method) |  |  |  |  | Portion of Accrued Liabilities Covered by Assets |  |  |
| ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |

## LEOFF Plan 2

Dollars in Millions

| Accrued Liabilities (Aggregate Cost Method) |  |  |  |  |  |  |  | Portion of Accrued Liabilities Covered by Assets |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Valuation Date | (1) Active Member Contributions |  | (2) Inactive Member Liability |  | (3) Excess Accrued Liability |  | (1+2+3) <br> otal Accrued Liability |  | Valuation Assets | (1) Active Member Contributions | (2) Inactive Member Liability | (3) Excess Accrued Liability |
| 6/30/2016 | \$ 2,392.2 | \$ | 3,365.0 | \$ | 4,264.0 | \$ | 10,021.3 | \$ | 10,021.3 | 100\% | 100\% | 100\% |
| 6/30/2015 | 2,311.3 |  | 2,746.8 |  | 4,262.0 |  | 9,320.2 |  | 9,320.2 | 100\% | 100\% | 100\% |
| 6/30/2014 | 2,179.6 |  | 2,287.3 |  | 4,171.1 |  | 8,637.9 |  | 8,637.9 | 100\% | 100\% | 100\% |
| 6/30/2013 | 2,054.4 |  | 1,862.4 |  | 3,945.5 |  | 7,862.3 |  | 7,862.3 | 100\% | 100\% | 100\% |
| 6/30/2012 | 1,925.9 |  | 1,427.7 |  | 3,868.3 |  | 7,221.9 |  | 7,221.9 | 100\% | 100\% | 100\% |
| 6/30/2011 | 1,782.2 |  | 1,166.1 |  | 3,672.3 |  | 6,620.7 |  | 6,620.7 | 100\% | 100\% | 100\% |
| 6/30/2010 | 1,615.0 |  | 924.7 |  | 3,503.0 |  | 6,042.7 |  | 6,042.7 | 100\% | 100\% | 100\% |
| 6/30/2009 | 1,479.5 |  | 682.5 |  | 3,402.1 |  | 5,564.2 |  | 5,564.2 | 100\% | 100\% | 100\% |
| 6/30/2008 | 1,319.7 |  | 547.5 |  | 3,185.5 |  | 5,052.7 |  | 5,052.7 | 100\% | 100\% | 100\% |
| 6/30/2007 | 1,178.3 |  | 451.7 |  | 2,729.6 |  | 4,359.6 |  | 4,359.6 | 100\% | 100\% | 100\% |

WSPRS Plan 1/2
Dollars in Millions

| Accrued Liabilities (Aggregate Cost Method) |  |  |  |  |  |  | Portion of Accrued Liabilities Covered by Assets |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Valuation Date | (1) Active Member Contributions | (2) Inactive Member Liability |  | (3) Excess <br> Accrued Liability |  | $(1+2+3)$ <br> Total Accrued Liability |  | Valuation Assets | (1) Active Member Contributions | (2) Inactive <br> Member Liability | (3) Excess Accrued Liability |
| 6/30/2016 | \$ 75.0 | \$ 811.2 | \$ | 197.7 | \$ | 1,084.0 | \$ | 1,084.0 | 100\% | 100\% | 100\% |
| 6/30/2015 | 75.5 | 752.0 |  | 239.6 |  | 1,067.1 |  | 1,067.1 | 100\% | 100\% | 100\% |
| 6/30/2014 | 74.1 | 703.2 |  | 266.9 |  | 1,044.2 |  | 1,044.2 | 100\% | 100\% | 100\% |
| 6/30/2013 | 71.6 | 663.3 |  | 274.4 |  | 1,009.4 |  | 1,009.4 | 100\% | 100\% | 100\% |
| 6/30/2012 | 70.8 | 576.1 |  | 334.9 |  | 981.7 |  | 981.7 | 100\% | 100\% | 100\% |
| 6/30/2011 | 69.0 | 541.2 |  | 339.3 |  | 949.5 |  | 949.5 | 100\% | 100\% | 100\% |
| 6/30/2010 | 66.4 | 496.5 |  | 356.7 |  | 919.6 |  | 919.6 | 100\% | 100\% | 100\% |
| 6/30/2009 | 62.4 | 474.5 |  | 363.5 |  | 900.4 |  | 900.4 | 100\% | 100\% | 100\% |
| 6/30/2008 | 56.0 | 460.5 |  | 353.2 |  | 869.7 |  | 869.7 | 100\% | 100\% | 100\% |
| 6/30/2007 | 50.8 | 444.2 |  | 304.9 |  | 799.9 |  | 799.9 | 100\% | 100\% | 100\% |

## Solvency Tests (cont.)

## JRS ${ }^{1}$

Dollars in Millions

| Accrued Liabilities (Entry Age Cost Method) |  |  |  |  |  |  |  |  | Portion of Accrued Liabilities Covered by Assets |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Valuation Date |  | ctive |  | (2) Inactive Member Liability |  | (3) Excess Accrued Liability |  | (1+2+3) <br> Total Accrued Liability |  | Valuation Assets | (1) Active Member Contributions | (2) Inactive Member Liability | (3) Excess Accrued Liability |
| 6/30/2016 | \$ | - | \$ | 97.5 | \$ | - | \$ | 97.5 | \$ | 6.8 | n/a | 7\% | n/a |
| 6/30/2015 |  | - |  | 100.3 |  | - |  | 100.3 |  | 6.3 | n/a | 6\% | n/a |
| 6/30/2014 |  | - |  | 105.0 |  | - |  | 105.0 |  | 5.0 | n/a | 5\% | n/a |
| 6/30/2013 |  | - |  | 108.2 |  | - |  | 108.2 |  | 3.9 | n/a | 4\% | n/a |
| 6/30/2012 |  | 1.0 |  | 100.4 |  | 2.5 |  | 103.9 |  | 3.5 | 100\% | 2\% | 0\% |
| 6/30/2011 |  | 1.5 |  | 104.3 |  | 3.6 |  | 109.3 |  | 5.1 | 100\% | 3\% | 0\% |
| 6/30/2010 |  | 2.2 |  | 78.5 |  | 3.1 |  | 83.8 |  | 3.8 | 100\% | 2\% | 0\% |
| 6/30/2009 |  | 3.7 |  | 76.1 |  | 9.5 |  | 89.3 |  | 1.8 | 50\% | 0\% | 0\% |
| 6/30/2008 |  | 3.7 |  | 78.2 |  | 9.7 |  | 91.5 |  | 1.0 | 26\% | 0\% | 0\% |
| 6/30/2007 |  | 3.7 |  | 75.3 |  | 6.0 |  | 85.0 |  | 0.5 | 15\% | 0\% | 0\% |

## JRF ${ }^{1}$ <br> Dollars in Millions

| Accrued Liabilities (Entry Age Cost Method) |  |  |  |  |  |  |  |  | Portion of Accrued Liabilities Covered by Assets |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Valuation Date |  |  |  | (2) Inactive Member Liability |  | (3) Excess Accrued Liability |  | - +3 ) |  | Valuation Assets | (1) Active Member Contributions | (2) Inactive Member Liability | (3) Excess Accrued Liability |
| 6/30/2016 | \$ | - | \$ | 3.0 | \$ | - | \$ | 3.0 | \$ | 0.6 | n/a | 19\% | n/a |
| 6/30/2015 |  | - |  | 3.1 |  | - |  | 3.1 |  | 0.5 | n/a | 16\% | n/a |
| 6/30/2014 |  | - |  | 3.3 |  | - |  | 3.3 |  | 1.0 | n/a | 29\% | n/a |
| 6/30/2013 |  | - |  | 3.5 |  | - |  | 3.5 |  | 1.4 | n/a | 40\% | n/a |
| 6/30/2012 |  | - |  | 3.6 |  | - |  | 3.6 |  | 1.9 | n/a | 52\% | n/a |
| 6/30/2011 |  | - |  | 3.9 |  | - |  | 3.9 |  | 2.3 | n/a | 61\% | n/a |
| 6/30/2010 |  | - |  | 3.2 |  | - |  | 3.2 |  | 2.8 | n/a | 87\% | n/a |
| 6/30/2009 |  | - |  | 3.4 |  | - |  | 3.4 |  | 3.3 | n/a | 97\% | n/a |
| 6/30/2008 |  | - |  | 3.5 |  | - |  | 3.5 |  | 3.6 | n/a | 100\% | n/a |
| 6/30/2007 |  | - |  | 3.9 |  | - |  | 3.9 |  | 4.0 | n/a | 100\% | n/a |

${ }^{1}$ JRS and JRF are financed on a pay-as-you-go basis from a combination of investment earnings and funding from the state.
Totals might not agree due to rounding, and percentages are based on actual, not rounded, totals.
PERS Plan 2/3, SERS Plan 2/3, PSERS Plan 2, TRS Plan 2/3, LEOFF Plan 2 and WSPRS Plan 1/2: The Actuarial Accrued Liability (AAL) presented in these charts reflects the actual actuarial valuation method (aggregate cost) used to calculate the annual required contributions for these plans. This aggregate actuarial cost method does not separately amortize unfunded actuarial liabilities and, by definition, sets the accrued liabilities equal to the assets. Therefore, the funded status is always $100 \%$. These AAL amounts differ from those presented in the schedules of funded status and funding progress included within the Actuarial Section, where a different valuation method (entry age) is used as a surrogate.

Source: Office of the State Actuary

## Analysis of Selected Experience

PERS Plan 1: Selected Gains and Losses During Fiscal Years Ended June 30, 2007-2016 Resulting from Differences Between Assumed Experience and Actual Experience - Dollars in Millions

| \$ Gain (or Loss) for Year |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Type of Activity |  | 2016 |  | 2015 |  | 2014 |  | 2013 |  | 2012 |  | 2011 |  | 2010 |  | 2009 |  | 2008 |  | 2007 |
| Investment Returns ${ }^{1}$ | \$ | (339.8) | \$ | (447.8) | \$ | (308.7) | \$ | (417.4) | \$ | (340.4) | \$ | (397.7) | \$ | (668.0) | \$ | (298.2) | \$ | 151.6 | \$ | 186.0 |
| Salary Growth |  | (6.2) |  | 10.5 |  | (1.4) |  | 25.8 |  | 47.9 |  | 59.9 |  | 54.2 |  | 10.9 |  | (59.2) |  | 30.7 |
| Termination of Employment |  | (0.4) |  | 0.2 |  | (0.3) |  | 1.1 |  | 0.5 |  | 0.1 |  | 1.2 |  | (0.2) |  | (0.4) |  | 7.2 |
| Return to Work from Terminated |  | (4.8) |  | (2.6) |  | (3.9) |  | (2.8) |  | (3.2) |  | (6.4) |  | (8.0) |  | (9.7) |  | (49.1) |  | (14.4) |
| Gain (or Loss) | \$ | (351.2) | \$ | (439.7) | \$ | (314.3) | \$ | (393.3) | \$ | (295.2) | \$ | (344.1) | \$ | (620.6) | \$ | (297.2) | \$ | 42.9 | \$ | 209.5 |
| During Year from Selected Experience |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

PERS Plan 2/3: Selected Gains and Losses During Fiscal Years Ended June 30, 2007-2016 Resulting from Differences Between Assumed Experience and Actual Experience - Dollars in Millions

| \$ Gain (or Loss) for Year |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Type of Activity |  | 2016 |  | 2015 |  | 2014 |  | 2013 |  | 2012 |  | 2011 |  | 2010 |  | 2009 |  | 2008 |  | 2007 |
| Investment Returns ${ }^{1}$ | \$ | (700.3) | \$ | (591.8) | \$ | (323.2) | \$ | (302.6) | \$ | (295.6) | \$ | (404.3) | \$ | (619.2) | \$ | (134.3) | \$ | 273.4 | \$ | 327.6 |
| Salary Growth |  | (61.2) |  | 331.5 |  | 60.7 |  | 481.1 |  | 663.9 |  | 731.7 |  | 577.8 |  | 185.9 |  | (326.1) |  | 124.2 |
| Termination of Employment |  | 162.3 |  | 192.2 |  | 116.6 |  | 131.8 |  | 129.3 |  | 118.3 |  | 18.0 |  | 21.1 |  | 47.8 |  | 131.1 |
| Return to Work from Terminated |  | (98.1) |  | (68.1) |  | (64.7) |  | (66.3) |  | (58.3) |  | (44.1) |  | (50.2) |  | (47.8) |  | (97.1) |  | (86.8) |
| Gain (or Loss) | \$ | (697.3) | \$ | (136.2) | \$ | (210.6) | \$ | 244.0 | \$ | 439.3 | \$ | 401.6 | \$ | (73.6) | \$ | 24.9 | \$ | (102.0) | \$ | 496.1 |
| During Year from Selected Experience |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

SERS Plan 2/3: Selected Gains and Losses During Fiscal Years Ended June 30, 2007-2016
Resulting from Differences Between Assumed Experience and Actual Experience - Dollars in Millions

| \$ Gain (or Loss) for Year |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Type of Activity |  | 2016 |  | 2015 |  | 2014 |  | 2013 |  | 2012 |  | 2011 |  | 2010 |  | 2009 |  | 2008 |  | 2007 |
| Investment Returns ${ }^{1}$ | \$ | (126.3) | \$ | (96.2) | \$ | (64.0) | \$ | (66.4) | \$ | (69.6) | \$ | (80.5) | \$ | (115.1) | \$ | (33.2) | \$ | 39.1 | \$ | 46.3 |
| Salary Growth |  | (93.5) |  | (7.1) |  | 9.1 |  | 53.1 |  | 94.1 |  | 75.1 |  | 84.5 |  | (27.4) |  | (27.5) |  | 9.6 |
| Termination of Employment |  | 28.1 |  | 30.9 |  | 27.0 |  | 18.0 |  | 20.3 |  | 8.3 |  | 3.1 |  | 5.8 |  | 11.0 |  | 16.1 |
| Return to Work from Terminated |  | (5.9) |  | (8.9) |  | (6.5) |  | (4.7) |  | (3.5) |  | (5.2) |  | (5.5) |  | (6.2) |  | (8.4) |  | (74.3) |
| Gain (or Loss) | \$ | (197.6) | \$ | (81.3) | \$ | (34.4) | \$ | - | \$ | 41.3 | \$ | (2.3) | \$ | (33.0) | \$ | (61.0) | \$ | 14.2 | \$ | (2.3) |
| During Year from Selected Experience |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

[^18]
## Analysis of Selected Experience (cont.)

PSERS Plan 2: Selected Gains and Losses During Fiscal Years Ended June 30, 2007-2016
Resulting from Differences Between Assumed Experience and Actual Experience - Dollars in Millions

| \$ Gain (or Loss) for Year |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Type of Activity |  | 2016 |  | 2015 |  | 2014 |  | 2013 |  | 2012 |  | 2011 |  | 2010 |  | 2009 |  | 2008 |  | 2007 |
| Investment Returns ${ }^{1}$ | \$ | (3.9) | \$ | 0.8 | \$ | 1.3 | \$ | 0.8 | \$ | (0.4) | \$ | 0.4 | \$ | (1.2) | \$ | 0.4 | \$ | (0.3) | \$ | - |
| Salary Growth |  | 3.9 |  | 5.3 |  | 6.1 |  | 14.1 |  | 17.7 |  | 14.9 |  | 10.3 |  | 8.5 |  | (5.1) |  | 1.3 |
| Termination of Employment |  | 16.4 |  | 9.8 |  | 6.9 |  | 3.7 |  | 7.7 |  | 4.2 |  | 4.7 |  | (7.4) |  | 0.4 |  | (1.0) |
| Return to Work from Terminated |  | (3.5) |  | (2.5) |  | (0.5) |  | (0.9) |  | - |  | - |  | - |  | - |  | (0.9) |  | - |
| Gain (or Loss) | \$ | 12.9 | \$ | 13.4 | \$ | 13.8 | \$ | 17.7 | \$ | 25.0 | \$ | 19.5 | \$ | 13.8 | \$ | 1.5 | \$ | (5.9) | \$ | 0.3 |
| During Year from Selected Experience |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

TRS Plan 1: Selected Gains and Losses During Fiscal Years Ended June 30, 2007-2016
Resulting from Differences Between Assumed Experience and Actual Experience - Dollars in Millions

| \$ Gain (or Loss) for Year |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Type of Activity |  | 2016 |  | 2015 |  | 2014 |  | 2013 |  | 2012 |  | 2011 |  | 2010 |  | 2009 |  | 2008 |  | 2007 |
| Investment Returns ${ }^{1}$ | \$ | (355.6) | \$ | (414.5) | \$ | (311.3) | \$ | (324.0) | \$ | (262.3) | \$ | (247.3) | \$ | (502.1) | \$ | (287.8) | \$ | 26.1 | \$ | 24.9 |
| Salary Growth |  | (5.7) |  | 11.4 |  | 4.4 |  | 20.6 |  | 45.5 |  | 36.5 |  | 60.7 |  | (17.4) |  | (28.9) |  | 4.3 |
| Termination of Employment |  | - |  | (0.3) |  | (0.2) |  | 0.3 |  | (0.3) |  | 0.2 |  | 0.9 |  | 1.5 |  | 0.7 |  | (7.5) |
| Return to Work from Terminated Status |  | (1.2) |  | (1.0) |  | (0.9) |  | (1.6) |  | (2.2) |  | (4.4) |  | (7.3) |  | (6.0) |  | (23.6) |  | (6.8) |
| Gain (or Loss) <br> During Year from Selected Experience | \$ | (362.5) | \$ | (404.4) | \$ | (308.0) | \$ | (304.7) | \$ | (219.3) | \$ | (215.0) | \$ | (447.8) | \$ | (309.7) | \$ | (25.7) | \$ | 14.9 |

TRS Plan 2/3: Selected Gains and Losses During Fiscal Years Ended June 30, 2007-2016
Resulting from Differences Between Assumed Experience and Actual Experience - Dollars in Millions

| \$ Gain (or Loss) for Year |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Type of Activity |  | 2016 |  | 2015 |  | 2014 |  | 2013 |  | 2012 |  | 2011 |  | 2010 |  | 2009 |  | 2008 |  | 2007 |
| Investment Returns ${ }^{1}$ | \$ | (259.5) | \$ | (200.8) | \$ | (120.4) | \$ | (122.3) | \$ | (142.0) | \$ | (180.6) | \$ | (266.8) | \$ | (120.1) | \$ | 66.8 | \$ | 88.5 |
| Salary Growth |  | (72.2) |  | 234.4 |  | 148.9 |  | 226.6 |  | 389.0 |  | 252.6 |  | 341.3 |  | (67.3) |  | (52.7) |  | 20.6 |
| Termination of Employment |  | 209.9 |  | 201.4 |  | 152.6 |  | 120.7 |  | 130.0 |  | 85.5 |  | 92.9 |  | 71.7 |  | 54.8 |  | 56.5 |
| Return to Work from Terminated |  | (122.1) |  | (94.3) |  | (78.0) |  | (56.5) |  | (39.9) |  | (43.7) |  | (37.5) |  | (63.0) |  | (85.4) |  | (139.7) |
| Status | \$ | (243.9) | \$ | 140.7 | \$ | 103.1 | \$ | 168.5 | \$ | 337.1 | \$ | 113.8 | \$ | 129.9 | \$ | (178.7) | \$ | (16.5) | \$ | 25.9 |
| During Year from Selected Experience |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

[^19]
## Analysis of Selected Experience (cont.)

LEOFF Plan 1: Selected Gains and Losses During Fiscal Years Ended June 30, 2007-2016
Resulting from Differences Between Assumed Experience and Actual Experience - Dollars in Millions


LEOFF Plan 2: Selected Gains and Losses During Fiscal Years Ended June 30, 2007-2016 Resulting from Differences Between Assumed Experience and Actual Experience - Dollars in Millions

| \$ Gain (or Loss) for Year |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Type of Activity |  | 2016 |  | 2015 |  | 2014 |  | 2013 |  | 2012 |  | 2011 |  | 2010 |  | 2009 |  | 2008 |  | 2007 |
| Investment Returns ${ }^{1}$ | \$ | (74.8) | \$ | (43.6) | \$ | 88.0 | \$ | 16.7 | \$ | (4.5) | \$ | (1.9) | \$ | (68.7) | \$ | 19.4 | \$ | 135.8 | \$ | 159.7 |
| Salary Growth |  | 154.7 |  | (2.2) |  | 6.9 |  | 117.5 |  | 186.3 |  | 164.7 |  | 91.1 |  | 6.5 |  | (29.7) |  | 61.2 |
| Termination of Employment |  | 28.3 |  | 7.6 |  | 6.5 |  | 3.4 |  | 9.0 |  | 2.5 |  | 25.8 |  | 11.8 |  | 2.9 |  | 4.4 |
| Return to Work from Terminated |  | (3.2) |  | (4.5) |  | (5.4) |  | (6.6) |  | (4.5) |  | (16.8) |  | (12.6) |  | (7.9) |  | (22.6) |  | (43.9) |
| Gain (or Loss) | \$ | 105.0 | \$ | (42.7) | \$ | 96.0 | \$ | 131.0 | \$ | 186.3 | \$ | 148.5 | \$ | 35.6 | \$ | 29.8 | \$ | 86.4 | \$ | 181.4 |
| During Year from Selected Experience |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

WSPRS Plan 1/2: Selected Gains and Losses During Fiscal Years Ended June 30, 2007-2016 Resulting from Differences Between Assumed Experience and Actual Experience - Dollars in Millions

| \$ Gain (or Loss) for Year |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Type of Activity |  | 2016 |  | 2015 |  | 2014 |  | 2013 |  | 2012 |  | 2011 |  | 2010 |  | 2009 |  | 2008 |  | 2007 |
| Investment Returns ${ }^{1}$ | \$ | (30.7) | \$ | (23.3) | \$ | (10.0) | \$ | (10.2) | \$ | (6.7) | \$ | (8.5) | \$ | (20.5) | \$ | (6.2) | \$ | 28.4 | \$ | 32.0 |
| Salary Growth |  | (20.3) |  | 7.2 |  | (1.3) |  | 8.6 |  | 12.5 |  | 18.8 |  | 19.0 |  | (0.7) |  | (5.9) |  | 5.5 |
| Termination of Employment |  | 7.2 |  | 5.7 |  | 2.8 |  | (0.3) |  | 2.5 |  | 0.1 |  | (1.0) |  | 1.2 |  | 1.1 |  | 0.1 |
| Return to Work from Terminated |  | (0.2) |  | (0.5) |  | - |  | (0.4) |  | (0.3) |  | (0.2) |  | (0.5) |  | (0.5) |  | - |  | (49.7) |
| Gain (or Loss) | \$ | (44.0) | \$ | (10.9) | \$ | (8.5) | \$ | (2.3) | \$ | 8.0 | \$ | 10.2 | \$ | (3.0) | \$ | (6.2) | \$ | 23.6 | \$ | (12.1) |
| During Year from Selected Experience |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

[^20]
## Schedules of Funding Progress

The Schedules of Funding Progress present multiyear trend information about whether the actuarial values of plan assets are increasing or decreasing over time relative to the Actuarial Accrued Liabilities for benefits.

## PERS Plan 1

Dollars in Millions

| Actuarial Valuation Date | 6/30/2016 |  | 6/30/2015 |  | 6/30/2014 |  | 6/30/2013 |  | 6/30/2012 |  | 6/30/2011 |  | 6/30/2010 |  | 6/30/2009 |  | 6/30/2008 |  | 6/30/2007 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Actuarial Value of Plan Assets | \$ | 6,958 | \$ | 7,315 | \$ | 7,761 | \$ | 8,053 | \$ | 8,521 | \$ | 8,883 | \$ | 9,293 | \$ | 9,776 | \$ | 9,853 | \$ | 9,715 |
| Actuarial Accrued Liability | \$ | 12,323 | \$ | 12,553 | \$ | 12,720 | \$ | 12,874 | \$ | 12,360 | \$ | 12,571 | \$ | 12,538 | \$ | 13,984 | \$ | 13,901 | \$ | 13,740 |
| Unfunded Actuarial Liability | \$ | 5,365 | \$ | 5,239 | \$ | 4,959 | \$ | 4,821 | \$ | 3,839 | \$ | 3,688 | \$ | 3,245 | \$ | 4,209 | \$ | 4,048 | \$ | 4,025 |
| Percentage Funded |  | 56\% |  | 58\% |  | 61\% |  | 63\% |  | 69\% |  | 71\% |  | 74\% |  | 70\% |  | 71\% |  | 71\% |
| Covered Payroll ${ }^{1}$ | \$ | 11,744 | \$ | 11,151 | \$ | 10,804 | \$ | 10,417 | \$ | 10,400 | \$ | 10,516 | \$ | 10,575 | \$ | 10,571 | \$ | 10,106 | \$ | 9,291 |
| Unfunded Actuarial Liability as a Percentage of Covered Payroll |  | 46\% |  | 47\% |  | 46\% |  | 46\% |  | 37\% |  | 35\% |  | 31\% |  | 40\% |  | 40\% |  | 43\% |

${ }^{1}$ Portions of the above covered payroll include the covered payrolls of PERS Plan 2/3, SERS Plan $2 / 3$ and PSERS Plan 2. Refer to "Required Supplementary Information" in the Financial Section for the covered payroll detail by system plan.

PERS Plan 2/3
Dollars in Millions

| Actuarial Valuation Date | 6/30/2016 |  | 6/30/2015 |  | 6/30/2014 |  | 6/30/2013 |  | 6/30/2012 |  | 6/30/2011 |  | 6/30/2010 |  | 6/30/2009 |  | 6/30/2008 |  | 6/30/2007 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Actuarial Value of Plan Assets | \$ | 30,262 | \$ | 28,292 | \$ | 26,386 | \$ | 24,335 | \$ | 22,653 | \$ | 20,997 | \$ | 19,474 | \$ | 18,260 | \$ | 16,693 | \$ | 14,888 |
| Actuarial Accrued Liability | \$ | 34,759 | \$ | 32,008 | \$ | 29,321 | \$ | 26,540 | \$ | 22,780 | \$ | 21,627 | \$ | 20,029 | \$ | 18,398 | \$ | 16,508 | \$ | 14,661 |
| Unfunded Actuarial Liability | \$ | 4,497 | \$ | 3,715 | \$ | 2,935 | \$ | 2,205 | \$ | 127 | \$ | 630 | \$ | 555 | \$ | 137 | \$ | (185) | \$ | (227) |
| Percentage Funded |  | 87\% |  | 88\% |  | 90\% |  | 92\% |  | 99\% |  | 97\% |  | 97\% |  | 99\% |  | 101\% |  | 102\% |
| Covered Payroll | \$ | 9,323 | \$ | 8,877 | \$ | 8,608 | \$ | 8,265 | \$ | 8,126 | \$ | 8,140 | \$ | 8,151 | \$ | 8,108 | \$ | 7,698 | \$ | 7,020 |
| Unfunded Actuarial Liability as a Percentage of Covered Payroll |  | 48\% |  | 42\% |  | 34\% |  | 27\% |  | 2\% |  | 8\% |  | 7\% |  | 2\% |  | (2)\% |  | (3)\% |

SERS Plan 2/3
Dollars in Millions

| Actuarial Valuation Date | 6/30/2016 |  | 6/30/2015 |  | 6/30/2014 |  | 6/30/2013 |  | 6/30/2012 |  | 6/30/2011 |  | 6/30/2010 |  | 6/30/2009 |  | 6/30/2008 |  | 6/30/2007 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Actuarial Value of Plan Assets | \$ | 4,181 | \$ | 3,901 | \$ | 3,624 | \$ | 3,335 | \$ | 3,100 | \$ | 2,872 | \$ | 2,664 | \$ | 2,503 | \$ | 2,303 | \$ | 2,133 |
| Actuarial Accrued Liability | \$ | 4,826 | \$ | 4,381 | \$ | 3,965 | \$ | 3,581 | \$ | 3,103 | \$ | 2,956 | \$ | 2,706 | \$ | 2,493 | \$ | 2,207 | \$ | 1,998 |
| Unfunded Actuarial Liability | \$ | 644 | \$ | 481 | \$ | 341 | \$ | 247 | \$ | 3 | \$ | 84 | \$ | 41 | \$ | (10) | \$ | (95) | \$ | (136) |
| Percentage Funded |  | 87\% |  | 89\% |  | 91\% |  | 93\% |  | 100\% |  | 97\% |  | 98\% |  | 100\% |  | 104\% |  | 107\% |
| Covered Payroll | \$ | 1,878 | \$ | 1,720 | \$ | 1,616 | \$ | 1,549 | \$ | 1,639 | \$ | 1,650 | \$ | 1,619 | \$ | 1,586 | \$ | 1,516 | \$ | 1,407 |
| Unfunded Actuarial Liability as a Percentage of Covered Payroll |  | 34\% |  | 28\% |  | 21\% |  | 16\% |  | 0\% |  | 5\% |  | $3 \%$ |  | (1)\% |  | (6)\% |  | (10)\% |

[^21]
## Schedules of Funding Progress (cont.)

## PSERS Plan 2

Dollars in Millions

| Actuarial Valuation Date | 6/30/2016 |  | 6/30/2015 |  | 6/30/2014 |  | 6/30/2013 |  | 6/30/2012 |  | 6/30/2011 |  | 6/30/2010 |  | 6/30/2009 |  | 6/30/2008 |  | 6/30/2007 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Actuarial Value of Plan Assets | \$ | 402 | \$ | 338 | \$ | 278 | \$ | 224 | \$ | 180 | \$ | 141 | \$ | 103 | \$ | 69 | \$ | 39 | \$ | 14 |
| Actuarial Accrued Liability | \$ | 425 | \$ | 357 | \$ | 291 | \$ | 218 | \$ | 159 | \$ | 126 | \$ | 94 | \$ | 64 | \$ | 37 | \$ | 19 |
| Unfunded Actuarial Liability | \$ | 24 | \$ | 19 | \$ | 13 | \$ | (7) | \$ | (22) | \$ | (14) | \$ | (9) | \$ | (5) | \$ | (2) | \$ | 6 |
| Percentage Funded |  | 94\% |  | 95\% |  | 96\% |  | 103\% |  | 114\% |  | 111\% |  | 109\% |  | 108\% |  | 106\% |  | 71\% |
| Covered Payroll | \$ | 325 | \$ | 293 | \$ | 270 | \$ | 249 | \$ | 236 | \$ | 232 | \$ | 233 | \$ | 222 | \$ | 179 | \$ | 102 |
| Unfunded Actuarial Liability as a Percentage of Covered Payroll |  | 7\% |  | 6\% |  | 5\% |  | (3)\% |  | (9)\% |  | (6)\% |  | (4)\% |  | (2)\% |  | (1)\% |  | 6\% |

## TRS Plan 1

Dollars in Millions

| Actuarial Valuation Date | 6/30/2016 |  | 6/30/2015 |  | 6/30/2014 |  | 6/30/2013 |  | 6/30/2012 |  | 6/30/2011 |  | 6/30/2010 |  | 6/30/2009 |  | 6/30/2008 |  | 6/30/2007 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Actuarial Value of Plan Assets | \$ | 5,440 | \$ | 5,870 | \$ | 6,353 | \$ | 6,717 | \$ | 7,145 | \$ | 7,485 | \$ | 7,791 | \$ | 8,146 | \$ | 8,262 | \$ | 8,302 |
| Actuarial Accrued Liability | \$ | 8,900 | \$ | 9,107 | \$ | 9,250 | \$ | 9,429 | \$ | 9,038 | \$ | 9,232 | \$ | 9,201 | \$ | 10,820 | \$ | 10,754 | \$ | 10,826 |
| Unfunded Actuarial Liability | \$ | 3,460 | \$ | 3,237 | \$ | 2,897 | \$ | 2,712 | \$ | 1,894 | \$ | 1,747 | \$ | 1,410 | \$ | 2,674 | \$ | 2,492 | \$ | 2,524 |
| Percentage Funded |  | 61\% |  | 64\% |  | 69\% |  | 71\% |  | 79\% |  | 81\% |  | 85\% |  | 75\% |  | 77\% |  | 77\% |
| Covered Payroll ${ }^{1}$ | \$ | 5,138 | \$ | 4,795 | \$ | 4,585 | \$ | 4,396 | \$ | 4,443 | \$ | 4,521 | \$ | 4,475 | \$ | 4,430 | \$ | 4,190 | \$ | 3,961 |
| Unfunded Actuarial Liability as a Percentage of Covered Payroll |  | 67\% |  | 68\% |  | 63\% |  | 62\% |  | 43\% |  | 39\% |  | 32\% |  | 60\% |  | 59\% |  | 64\% |

${ }^{1}$ Portions of the above covered payroll include the covered payrolls of TRS Plan 2/3. Refer to "Required Supplementary Information" in the Financial Section for the covered payroll detail by system plan.

TRS Plan 2/3
Dollars in Millions

| Actuarial Valuation Date | 6/30/2016 |  | 6/30/2015 |  | 6/30/2014 |  | 6/30/2013 |  | 6/30/2012 |  | 6/30/2011 |  | 6/30/2010 |  | 6/30/2009 |  | 6/30/2008 |  | 6/30/2007 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Actuarial Value of Plan Assets | \$ | 10,722 | \$ | 9,953 | \$ | 9,193 | \$ | 8,406 | \$ | 7,758 | \$ | 7,141 | \$ | 6,593 | \$ | 6,160 | \$ | 5,681 | \$ | 5,277 |
| Actuarial Accrued Liability | \$ | 11,983 | \$ | 10,831 | \$ | 9,819 | \$ | 8,794 | \$ | 7,478 | \$ | 7,194 | \$ | 6,558 | \$ | 6,048 | \$ | 5,264 | \$ | 4,682 |
| Unfunded Actuarial Liability | \$ | 1,261 | \$ | 879 | \$ | 626 | \$ | 388 | \$ | (280) | \$ | 53 | \$ | (36) | \$ | (112) | \$ | (417) | \$ | (594) |
| Percentage Funded |  | 89\% |  | 92\% |  | 94\% |  | 96\% |  | 104\% |  | 99\% |  | 101\% |  | 102\% |  | 108\% |  | 113\% |
| Covered Payroll | \$ | 5,054 | \$ | 4,682 | \$ | 4,437 | \$ | 4,204 | \$ | 4,163 | \$ | 4,171 | \$ | 4,056 | \$ | 3,950 | \$ | 3,665 | \$ | 3,375 |
| Unfunded Actuarial Liability as a Percentage of Covered Payroll |  | 25\% |  | 19\% |  | 14\% |  | 9\% |  | (7)\% |  | 1\% |  | (1)\% |  | (3)\% |  | (11)\% |  | (18)\% |

## Schedules of Funding Progress (cont.)

## LEOFF Plan 1

Dollars in Millions

| Actuarial Valuation Date | 6/30/2016 | 6/30/2015 | 6/30/2014 | 6/30/2013 | 6/30/2012 | 6/30/2011 | 6/30/2010 | 6/30/2009 | 6/30/2008 | 6/30/2007 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Actuarial Value of Plan Assets | \$ 5,275 | \$ 5,404 | \$ 5,499 | \$ 5,516 | \$ 5,562 | \$ 5,565 | \$ 5,561 | \$ 5,612 | \$ 5,592 | \$ 5,298 |
| Actuarial Accrued Liability | \$ 4,197 | \$ 4,307 | \$ 4,323 | \$ 4,409 | $\$ \quad 4,120$ | $\$ \quad 4,145$ | \$ 4,393 | $\$ \quad 4,492$ | \$ 4,368 | \$ 4,340 |
| Unfunded Actuarial Liability | \$ $(1,078)$ | \$ $(1,097)$ | \$ $(1,177)$ | \$ $(1,108)$ | \$ $(1,441)$ | \$ (1,421) | \$ $(1,168)$ | \$ $(1,120)$ | \$ $(1,225)$ | \$ (958) |
| Percentage Funded | 126\% | 125\% | 127\% | 125\% | 135\% | 134\% | 127\% | 125\% | 128\% | 122\% |
| Covered Payroll <br> Unfunded Actuarial Liability as a Percentage of Covered Payroll | $\begin{array}{lr} \text { \$ } & 8 \\ (13,475) \% \end{array}$ | $\begin{aligned} & \text { \$ } \begin{array}{r} 11 \\ (9,973) \% \end{array}, ~ \end{aligned}$ | $\begin{aligned} & \$ \quad 14 \\ & (8,407) \% \end{aligned}$ | $\begin{aligned} & \$ \quad 17 \\ & \\ & (6,518) \% \end{aligned}$ | $\begin{array}{lr} \$ & 21 \\ & (6,862) \% \end{array}$ | $\begin{array}{lr} \$ & 27 \\ & (5,263) \% \end{array}$ | $\begin{aligned} & \text { \$ } \begin{array}{r} 32 \\ (3,650) \% \end{array} \end{aligned}$ | $\begin{array}{lr} \$ & 41 \\ & (2,732) \% \end{array}$ | $\begin{array}{cr} \$ & 41 \\ & (2,988) \% \end{array}$ | $\begin{aligned} & \$ \quad 46 \\ & \\ & (2,083) \% \end{aligned}$ |

LEOFF Plan 2
Dollars in Millions

| Actuarial Valuation Date | 6/30/2016 |  | 6/30/2015 |  | 6/30/2014 |  | 6/30/2013 |  | 6/30/2012 |  | 6/30/2011 |  | 6/30/2010 |  | 6/30/2009 |  | 6/30/2008 |  | 6/30/2007 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Actuarial Value of Plan Assets | \$ | 10,021 | \$ | 9,320 | \$ | 8,638 | \$ | 7,862 | \$ | 7,222 | \$ | 6,621 | \$ | 6,043 | \$ | 5,564 | \$ | 5,053 | \$ | 4,360 |
| Actuarial Accrued Liability | \$ | 9,571 | \$ | 8,838 | \$ | 8,069 | \$ | 7,220 | \$ | 6,353 | \$ | 5,941 | \$ | 5,164 | \$ | 4,641 | \$ | 3,998 | \$ | 3,626 |
| Unfunded Actuarial Liability | \$ | (450) | \$ | (482) | \$ | (569) | \$ | (643) | \$ | (869) | \$ | (679) | \$ | (879) | \$ | (923) | \$ | $(1,054)$ | \$ | (734) |
| Percentage Funded |  | 105\% |  | 105\% |  | 107\% |  | 109\% |  | 114\% |  | 111\% |  | 117\% |  | 120\% |  | 126\% |  | 120\% |
| Covered Payroll <br> Unfunded Actuarial Liability as a Percentage of Covered Payroll | \$ | $\begin{aligned} & 1,804 \\ & (25) \% \end{aligned}$ | \$ | $\begin{aligned} & 1,744 \\ & (28) \% \end{aligned}$ | \$ | $\begin{aligned} & 1,674 \\ & (34) \% \end{aligned}$ | \$ | $\begin{aligned} & 1,605 \\ & (40) \% \end{aligned}$ | \$ | $\begin{aligned} & 1,569 \\ & (55) \% \end{aligned}$ | \$ | 1,542 <br> (44)\% | \$ | $\begin{aligned} & 1,516 \\ & (58) \% \end{aligned}$ | \$ | $\begin{aligned} & 1,456 \\ & (63) \% \end{aligned}$ | \$ | $\begin{aligned} & 1,344 \\ & (78) \% \end{aligned}$ | \$ | $\begin{aligned} & 1,221 \\ & (60) \% \end{aligned}$ |

WSPRS Plan 1/2
Dollars in Millions

| Actuarial <br> Valuation Date | 6/30/2016 |  | 6/30/2015 |  | 6/30/2014 |  | 6/30/2013 |  | 6/30/2012 |  | 6/30/2011 |  | 6/30/2010 |  | 6/30/2009 |  | 6/30/2008 |  | 6/30/2007 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Actuarial Value of Plan Assets | \$ | 1,084 | \$ | 1,067 | \$ | 1,044 | \$ | 1,009 | \$ | 982 | \$ | 949 | \$ | 920 | \$ | 900 | \$ | 870 | \$ | 800 |
| Actuarial Accrued Liability | \$ | 1,186 | \$ | 1,093 | \$ | 1,042 | \$ | 987 | \$ | 884 | \$ | 859 | \$ | 812 | \$ | 790 | \$ | 745 | \$ | 702 |
| Unfunded Actuarial Liability | \$ | 102 | \$ | 26 | \$ | (2) | \$ | (22) | \$ | (97) | \$ | (90) | \$ | (107) | \$ | (110) | \$ | (124) | \$ | (98) |
| Percentage Funded |  | 91\% |  | 98\% |  | 100\% |  | 102\% |  | 111\% |  | 110\% |  | 113\% |  | 114\% |  | 117\% |  | 114\% |
| Covered Payroll | \$ | 87 | \$ | 84 | \$ | 83 | \$ | 82 | \$ | 82 | \$ | 82 | \$ | 83 | \$ | 83 | \$ | 79 | \$ | 73 |
| Unfunded Actuarial Liability as a Percentage of Covered Payroll |  | 117\% |  | 31\% |  | (2)\% |  | (27)\% |  | (118)\% |  | (110)\% |  | (129)\% |  | (133)\% |  | (157)\% |  | (134)\% |

## Schedules of Funding Progress (cont.)

| JRS <br> Dollars in Millions |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Actuarial Valuation Date <br> Actuarial Value of Plan Assets | 6/30/2016 |  | 6/30/2015 |  | 6/30/2014 |  | 6/30/2013 |  | 6/30/2012 |  | 6/30/2011 |  | 6/30/2010 |  | 6/30/2009 |  | 6/30/2008 |  | 6/30/2007 |  |
|  | \$ | 7 | \$ | 6 | \$ | 5 | \$ | 4 | \$ | 3 | \$ | 5 | \$ | 4 | \$ | 2 | \$ | 1 | \$ | 1 |
| Actuarial Accrued Liability | \$ | 98 | \$ | 100 | \$ | 105 | \$ | 108 | \$ | 104 | \$ | 109 | \$ | 84 | \$ | 89 | \$ | 92 | \$ | 85 |
| Unfunded <br> Actuarial Liability | \$ | 91 | \$ | 94 | \$ | 100 | \$ | 104 | \$ | 101 | \$ | 104 | \$ | 80 | \$ | 87 | \$ | 91 | \$ | 85 |
| Percentage Funded |  | 7\% |  | 6\% |  | 5\% |  | 4\% |  | 3\% |  | 5\% |  | 5\% |  | 2\% |  | 1\% |  | 1\% |
| Covered Payroll ${ }^{1}$ | \$ | - | \$ | - | \$ | - | \$ | 0.2 | \$ | 0.4 | \$ | 0.6 | \$ | 1.0 | \$ | 1.4 | \$ | 1.5 | \$ | 1.5 |
| Unfunded Actuarial Liability as a Percentage of Covered Payroll |  | n/a |  | n/a |  | n/a |  | 00\% |  | 50\% |  | 33\% |  | 8,000\% |  |  |  |  |  |  |


| JRF <br> Dollars in Millions |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Actuarial Valuation Date <br> Actuarial Value of Plan Assets | 6/30/2016 |  | 6/30/2015 |  | 6/30/2014 |  | 6/30/2013 |  | 6/30/2012 |  | 6/30/2011 |  | 6/30/2010 |  | 6/30/2009 |  | 6/30/2008 |  | 6/30/2007 |  |
|  | \$ | 0.6 | \$ | 0.5 | \$ | 1.0 | \$ | 1.4 | \$ | 1.9 | \$ | 2.3 | \$ | 2.8 | \$ | 3.3 | \$ | 3.6 | \$ | 4.0 |
| Actuarial Accrued Liability | \$ | 3.0 | \$ | 3.1 | \$ | 3.3 | \$ | 3.5 | \$ | 3.6 | \$ | 3.9 | \$ | 3.2 | \$ | 3.4 | \$ | 3.5 | \$ | 3.9 |
| Unfunded Actuarial Liability | \$ | 2.5 | \$ | 2.6 | \$ | 2.3 | \$ | 2.1 | \$ | 1.7 | \$ | 1.5 | \$ | 0.4 | \$ | 0.1 | \$ | (0.1) | \$ | (0.1) |
| Percentage Funded |  | 19\% |  | 16\% |  | 29\% |  | 40\% |  | 52\% |  | 61\% |  | 87\% |  | 97\% |  | 104\% |  | 103\% |
| Covered Payroll | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - |
| Unfunded Actuarial Liability as a Percentage of Covered Payroll |  | n/a |  | n/a |  | n/a |  | n/a |  | n/a |  | n/a |  | n/a |  | n/a |  | n/a |  | n/a |

Liability amounts and ratios/percentages are based on actual, not rounded, figures.
PERS Plan $2 / 3$, SERS Plan $2 / 3$, PSERS Plan 2 , TRS Plan $2 / 3$, LEOFF Plan 2 and WSPRS Plan $1 / 2$ : These plans all use the aggregate actuarial cost method, which does not separately amortize an Unfunded Actuarial Accrued Liabilities (UAAL) outside the normal cost. Instead, the entry age normal actuarial cost method was used to determine the UAAL. This method is intended to serve as a surrogate for the funded status of these plans.

Sources: Office of the State Actuary and Department of Retirement Systems
Ten-year schedules of actuarially determined and actual contributions are included in "Required Supplementary Information" in the Financial Section.

## Funded Status and Funding Progress

## Funded Status of Each Plan as of June 30, 2016, the Most Recent Actuarial Valuation Date Dollars in Millions

| Plan | Actuarial <br> Value of Assets (a) |  |  | Actuarial <br> diability <br> Entry Age <br> (b) |  | Unfunded AAL <br> (UAAL) <br> (b-a) | Funded Ratio (a/b) |  | Covered Payroll <br> (c) | UAAL as a \% of Covered Payroll [(b-a)/c] |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| PERS $1^{11}$ | \$ | 6,958.2 | \$ | 12,323.2 | \$ | 5,365.0 | 56\% | \$ | 11,744.2 | 46\% |
| PERS 2/3 ${ }^{2}$ |  | 30,262.5 |  | 34,759.2 |  | 4,496.7 | 87\% |  | 9,323.4 | 48\% |
| SERS $2 / 3{ }^{2}$ |  | 4,181.2 |  | 4,825.7 |  | 644.5 | 87\% |  | 1,877.9 | 34\% |
| PSERS $2^{2}$ |  | 401.6 |  | 425.1 |  | 23.5 | 94\% |  | 324.9 | 7\% |
| TRS $1^{3}$ |  | 5,439.6 |  | 8,900.0 |  | 3,460.4 | 61\% |  | 5,138.3 | 67\% |
| TRS 2/3 ${ }^{2}$ |  | 10,721.8 |  | 11,983.1 |  | 1,261.3 | 89\% |  | 5,054.1 | 25\% |
| LEOFF 1 |  | 5,275.0 |  | 4,197.4 |  | $(1,077.6)$ | 126\% |  | 7.9 | (13,641)\% |
| LEOFF $2^{2}$ |  | 10,021.3 |  | 9,570.9 |  | (450.4) | 105\% |  | 1,804.0 | (25)\% |
| WSPRS $1 / 2^{2}$ |  | 1,084.0 |  | 1,185.8 |  | 101.8 | 91\% |  | 86.7 | 117\% |
| JRS |  | 6.8 |  | 97.5 |  | 90.7 | 7\% |  | n/a | n/a |
| JRF |  | 0.6 |  | 3.0 |  | 2.5 | 19\% |  | n/a | n/a |
| Total | \$ | 74,352.6 | \$ | 88,270.9 | \$ | 13,918.4 | 84\% | \$ | 35,361.4 | 39\% |

${ }^{1}$ PERS Plan 1 includes the covered payrolls of PERS Plan 1 ( $\$ 218.0$ million), PERS Plan $2 / 3$ ( $\$ 9,323.4$ million), SERS Plan 2/3 ( $\$ 1,877.9$ million) and PSERS Plan 2 ( $\$ 324.9$ million). A portion of the employer contributions reported in PERS Plan 1 is based on the covered payrolls of PERS Plan $2 / 3$, SERS Plan $2 / 3$ and PSERS Plan 2 to fund the Unfunded Actuarial Accrued Liability (UAAL) of PERS Plan 1.
${ }^{2}$ These plans use the aggregate actuarial cost method, which does not separately amortize UAALs outside the normal cost. Instead, the entry age normal actuarial cost method was used to determine the UAAL. This method is intended to serve as a surrogate for the funded status of these plans.
${ }^{3}$ TRS Plan 1 includes the covered payrolls of TRS Plan 1 ( $\$ 84.2$ million) and TRS Plan 2/3 (\$5,054.1 million). A portion of the employer contributions reported in TRS Plan 1 is based on the covered payroll of TRS Plan $2 / 3$ to fund the UAAL of TRS Plan 1.

Totals might not agree due to rounding. Percentages are calculated using unrounded totals.
Sources: Office of the State Actuary and Department of Retirement Systems

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## Additional Information for the Defined Benefit Pension Plans

## Additional Information

For the Fiscal Year Ended June 30, 2017 - Page 1 of 2

|  | PERS Plan 1 | PERS Plan 2/3 | TRS Plan 1 | TRS Plan 2/3 | SERS Plan 2/3 | PSERS Plan 2 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Valuation Date | 6/30/2016 | 6/30/2016 | 6/30/2016 | 6/30/2016 | 6/30/2016 | 6/30/2016 |
| Actuarial Cost Method | entry age normal ${ }^{1}$ | aggregate ${ }^{2}$ | entry age normal ${ }^{1}$ | aggregate ${ }^{2}$ | aggregate ${ }^{2}$ | aggregate ${ }^{2}$ |
| Amortization Method - Funding | level $\%^{4}$ | $\mathrm{n} / \mathrm{a}$ | level $\%^{4}$ | $\mathrm{n} / \mathrm{a}$ | $\mathrm{n} / \mathrm{a}$ | n/a |
| Remaining Amortization Years (Closed) | 10-year rolling | n/a | 10-year rolling | n/a | n/a | n/a |
| Remaining Amortization Period (Closed) | n/a | n/a | n/a | n/a | n/a | n/a |
| Asset Valuation Method | 8-year graded smoothed fair value ${ }^{5}$ | 8-year graded <br> smoothed fair value ${ }^{5}$ | 8-year graded <br> smoothed <br> fair value ${ }^{5}$ | 8-year graded smoothed fair value ${ }^{5}$ | 8-year graded smoothed fair value ${ }^{5}$ | 8-year graded <br> smoothed <br> fair value ${ }^{5}$ |
| Actuarial Assumptions |  |  |  |  |  |  |
| Investment Rate of Return ${ }^{7}$ <br> Projected Salary Increases (Salary <br> Inflation at 3.75\% Plus the Service- <br> Based Salary Increase Described Below) | 7.70\% | 7.70\% | 7.70\% | 7.70\% | 7.70\% | 7.70\% |
| Initial Increases (Grades Down to 0\%) | 6.00\% | 6.00\% | 5.10\% | 5.10\% | 6.60\% | 6.00\% |
| Applied for X Years of Service | 17 years | 17 years | 25 years | 25 years | 20 years | 17 years |
| Includes Inflation at | n/a | 3.00\% | n/a | 3.00\% | 3.00\% | 3.00\% |
| Cost-of-Living Adjustments | Minimum COLA ${ }^{6}$ | CPI increase, maximum 3\% | Minimum COLA ${ }^{6}$ | CPI increase, maximum 3\% | CPI increase, maximum 3\% | CPI increase, maximum 3\% |


| Annual Gain/Loss |  |  |
| ---: | ---: | ---: |
| Rate of Return | Smoothing Period | Annual Recognition |
| $14.7 \%$ and higher | 8 years | $12.50 \%$ |
| $13.7-14.7 \%$ | 7 years | $14.29 \%$ |
| $12.7-13.7 \%$ | 6 years | $16.67 \%$ |
| $11.7-12.7 \%$ | 5 years | $20.00 \%$ |
| $10.7-11.7 \%$ | 4 years | $25.00 \%$ |
| $9.7-10.7 \%$ | 3 years | $33.33 \%$ |
| $8.7-9.7 \%$ | 2 years | $50.00 \%$ |
| $6.7-8.7 \%$ | 1 year | $100.00 \%$ |
| $5.7-6.7 \%$ | 2 years | $50.00 \%$ |
| $4.7-5.7 \%$ | 3 years | $33.33 \%$ |
| $3.7-4.7 \%$ | 4 years | $25.00 \%$ |
| $2.7-3.7 \%$ | 5 years | $20.00 \%$ |
| $1.7-2.7 \%$ | 6 years | $16.67 \%$ |
| $0.7-1.7 \%$ | 7 years | $14.29 \%$ |
| $0.7 \%$ and lower | 8 years | $12.50 \%$ |

Source: Office of the State Actuary

## Additional Information for the Defined Benefit Pension Plans (cont.)

| Additional Information |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | LEOFF Plan 1 | LEOFF Plan 2 | WSPRS <br> Plan 1/2 | JRS | JRF |
| Valuation Date | 6/30/2016 | 6/30/2016 | 6/30/2016 | 6/30/2016 | 6/30/2016 |
| Actuarial Cost Method | frozen initial liability ${ }^{1}$ | aggregate ${ }^{2}$ | aggregate ${ }^{2}$ | entry age ${ }^{3}$ | entry age ${ }^{3}$ |
| Amortization Method - Funding | level $\%^{4}$ | n/a | n/a | n/a | n/a |
| Remaining Amortization Years (Closed) | 8.00 | n/a | n/a | 5 -year rolling | 5 -year rolling |
| Remaining Amortization Period (Closed) | 6/30/2024 | n/a | n/a | n/a | n/a |
| Asset Valuation Method | 8 -year graded smoothed fair value ${ }^{5}$ | 8-year graded <br> smoothed fair value ${ }^{5}$ | 8 -year graded <br> smoothed fair value ${ }^{5}$ | market | market |
| Actuarial Assumptions |  |  |  |  |  |
| Investment Rate of Return ${ }^{7}$ <br> Projected Salary Increases (Salary Inflation at 3.75\% Plus the ServiceBased Salary Increase Described Below) | 7.70\% | 7.50\% | 7.70\% | 3.75\% | 3.75\% |
| Initial Increases (Grades Down to 0\%) | 10.70\% | 10.70\% | 10.70\% | 0.00\% | 0.00\% |
| Applied for X Years of Service | 25 years | 25 years | 25 years | n/a | n/a |
| Includes Inflation at | 3.00\% | 3.00\% | 3.00\% | 3.00\% | 3.00\% |
| Cost-of-Living Adjustments | CPI increase | CPI increase, maximum 3\% | CPI increase, maximum 3\% | CPI increase, maximum 3\% | none |

${ }^{1}$ PERS Plan 1 and TRS Plan 1 use a variation of the entry age cost method. LEOFF 1 uses a variation of the frozen initial liability (FLL) cost method.
${ }^{2}$ The aggregate actuarial cost method does not identify or separately amortize unfunded actuarial accrued liabilities.
${ }^{3}$ Pay-as-you-go basis for funding
${ }^{4}$ Level percent of the system's payroll, including assumed system growth
${ }^{5}$ Asset valuation method: Eight-year, smoothed, fair value
The actuarial value of assets is calculated using an adjusted market value method by starting with the market value of assets. For subsequent years, the actuarial value of assets is determined by adjusting the market value of assets to reflect the difference between the actual investment return and the expected investment return during each of the past eight years - or, if fewer, the completed years since adoption - at the rates per year (annual recognition) shown above. The LEOFF Plan 2 Annual Gain/Loss is centered around its $7.50 \%$ expected rate of return instead of $7.70 \%$.
${ }^{6}$ The PERS Plan 1 and TRS Plan 1 COLA
Qualifying retirees receive an increase in their monthly benefits once a year. The COLA on minimum benefit levels is calculated as the last unrounded COLA amount increased by $3 \%$, rounded to the nearest penny. Below are some historical monthly COLA amounts per year of service.
${ }^{7}$ The Legislature prescribes the assumed rate of investment return for all plans except JRS and JRF.

| Historical Monthly COLA <br> Amounts per Year of Service |  |  |
| ---: | ---: | ---: |
| Date | COLA Type | Amount |
| $7 / 1 / 2017$ | Minimum | $\$ 2.32$ |
| $7 / 1 / 2016$ | Minimum | $\$ 2.25$ |
| $7 / 1 / 2015$ | Minimum | $\$ 2.18$ |
| $7 / 1 / 2014$ | Minimum | $\$ 2.12$ |
| $7 / 1 / 2013$ | Minimum | $\$ 2.06$ |
| $7 / 1 / 2012$ | Minimum | $\$ 2.00$ |
| $7 / 1 / 2011$ | Minimum | $\$ 1.94$ |
| $7 / 1 / 2010$ | Uniform | $\$ 1.88$ |
| $7 / 1 / 2009$ | Uniform | $\$ 1.83$ |

## Required Contribution Rates

## Required Contribution Rates

Expressed as a Percentage of Current-Year Covered Payroll at the Close of Fiscal Year 2017

|  | Employer Actual Contribution Rates ${ }^{1}$ |  |  | Employee Actual Contribution Rates |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Plan 1 | Plan 2 | Plan $3^{2}$ | Plan 1 | Plan 2 | Plan 3 |
| PERS ${ }^{3}$ |  |  |  |  |  |  |
| Members Not Participating in JBM |  |  |  |  |  |  |
| State Agencies | 11.18\% | 11.18\% | 11.18\% | 6.00\% | 6.12\% | varies ${ }^{4}$ |
| Local Governmental Units | 11.18\% | 11.18\% | 11.18\% | 6.00\% | 6.12\% | varies ${ }^{4}$ |
| State Government Elected Officials | 16.68\% | 11.18\% | 11.18\% | 7.50\% | 6.12\% | varies ${ }^{4}$ |
| Members Participating in JBM |  |  |  |  |  |  |
| State Agencies | 13.68\% | 13.68\% | 13.68\% | 9.76\% | 12.80\% | $7.50 \%{ }^{5}$ |
| Local Governmental Units | 11.18\% | 11.18\% | 11.18\% | 12.26\% | 15.30\% | $7.50 \%{ }^{5}$ |
| $\text { SERS }^{3}$ |  |  |  |  |  |  |
| State Agencies | n/a | 11.58\% | 11.58\% | n/a | 5.63\% | varies ${ }^{4}$ |
| Local Governmental Units | n/a | 11.58\% | 11.58\% | n/a | 5.63\% | varies ${ }^{4}$ |
| PSERS ${ }^{3}$ |  |  |  |  |  |  |
| State Agencies | n/a | 11.54\% | n/a | n/a | 6.59\% | n/a |
| Local Governmental Units | n/a | 11.54\% | n/a | n/a | 6.59\% | n/a |
| TRS ${ }^{6}$ |  |  |  |  |  |  |
| Members Not Participating in JBM |  |  |  |  |  |  |
| State Agencies | 13.13\% | 13.13\% | 13.13\% | 6.00\% | 5.95\% | varies ${ }^{4}$ |
| Local Governmental Units | 13.13\% | 13.13\% | 13.13\% | 6.00\% | 5.95\% | varies ${ }^{4}$ |
| State Government Elected Officials | 13.13\% | 13.13\% | 13.13\% | 7.50\% | 5.95\% | varies ${ }^{4}$ |
| Members Participating in JBM |  |  |  |  |  |  |
| State Agencies | 13.13\% | n/a | n/a | 9.76\% | n/a | n/a |
| LEOFF |  |  |  |  |  |  |
| Local Governmental Units | 0.18\% | 5.23\% | n/a | n/a | 8.41\% | n/a |
| Ports and Universities | n/a | 8.59\% | n/a | n/a | 8.41\% | n/a |
| State of Washington | n/a | 3.36\% | n/a | n/a | n/a | n/a |
| WSPRS |  |  |  |  |  |  |
| State Agencies | 8.34\% | 8.34\% | n/a | 6.84\% | 6.84\% | n/a |
| ${ }^{1}$ Employer rates include an administrative expense rate of 0.18\%. |  |  |  |  |  |  |
| 2 Plan 3 defined benefit portion only |  |  |  |  |  |  |
| ${ }^{3}$ Employer rates include the rate to fund the Unfunded Actuarial Accrued Liability (UAAL) of PERS Plan 1. |  |  |  |  |  |  |
| ${ }^{4}$ Variable from 5\% to 15\% based on rate the member selects |  |  |  |  |  |  |
| ${ }^{5}$ Minimum rate |  |  |  |  |  |  |
| ${ }^{6}$ Employer rates include the rate to fund the UAAL of TRS Plan 1. |  |  |  |  |  |  |

## DCP by the Numbers

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## DCP Participation

This chart illustrates participation in DCP for the fiscal years ended June 30, 2008-2017, which includes the inauguration of auto-enrollment into the savings program.


## The Washington State Deferred Compensation

Program (DCP) is a supplemental retirement savings
program (an IRC Section 457 plan). Beginning in January 2017, the state began automatically enrolling all new, full-time state employees in the program with the ability to opt out.

Statistical Section

## Statistical Section Table of Contents

This section of the Department of Retirement Systems' Comprehensive Annual Financial Report presents detailed information that expands on the financial statements, note disclosures and required supplementary information that speak to the overall financial health of DRS.

## FINANCIAL TRENDS

174 These schedules contain trend information about how the financial performance and well-being of DRS have changed over time.

## DEMOGRAPHIC INFORMATION

190 These schedules contain demographic and historical information regarding membership and employer participation in the pension plans DRS offers.

## OPERATING INFORMATION

214 These schedules contain detailed payment information about the benefit services DRS provides.

## DEFERRED COMPENSATION INFORMATION

242 These schedules contain comprehensive information about the state's Deferred Compensation Program.

[^22]$\bar{s}$ Schedules of Changes in Fiduciary Net Position

|  |  | 6/30/2017 |  | 6/30/2016 |  | 6/30/2015 |  | 6/30/2014 |  | 6/30/2013 |  | 6/30/2012 |  | 6/30/2011 |  | 6/30/2010 |  | 6/30/2009 |  | 6/30/2008 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Additions by Source |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Employer Contributions | \$ | 609,287 | \$ | 595,982 | \$ | 462,100 | \$ | 448,895 | \$ | 266,270 | \$ | 257,197 | \$ | 145,585 | \$ | 154,023 | \$ | 325,248 | \$ | 221,787 |
| Employee Contributions |  | 11,092 |  | 13,663 |  | 15,806 |  | 18,797 |  | 21,362 |  | 24,317 |  | 28,767 |  | 33,152 |  | 37,791 |  | 41,925 |
| Investment Income (Loss) ${ }^{1}$ |  | 945,298 |  | 157,083 |  | 336,316 |  | 1,312,000 |  | 863,182 |  | 86,377 |  | 1,523,415 |  | 980,360 |  | ( $2,373,373$ ) |  | $(114,595)$ |
| Transfers |  | 7 |  | 117 |  | 22 |  | 36 |  | 38 |  | 97 |  | 90 |  | 1 |  | 1 |  | 343 |
| Miscellaneous ${ }^{2}$ |  | 7,521 |  | 7,630 |  | 8,650 |  | 12,189 |  | 12,024 |  | 10,269 |  | 12,705 |  | 11,566 |  | 10,700 |  | 13,262 |
| Total Additions |  | 1,573,205 |  | 774,475 |  | 822,894 |  | 1,791,917 |  | 1,162,876 |  | 378,257 |  | 1,710,562 |  | 1,179,102 |  | $(1,999,633)$ |  | 162,722 |
| Deductions by Type |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Benefits |  | 1,196,060 |  | 1,198,836 |  | 1,198,965 |  | 1,189,496 |  | 1,181,380 |  | 1,173,683 |  | 1,149,522 |  | 1,111,386 |  | 1,070,929 |  | 1,027,934 |
| Refunds |  | 3,159 |  | 4,373 |  | 4,029 |  | 4,219 |  | 3,998 |  | 4,554 |  | 3,470 |  | 4,946 |  | 5,071 |  | 5,573 |
| Transfers |  | 558 |  | 520 |  | 30 |  | - |  | 710 |  | 265 |  | 362 |  | 140 |  | 2,021 |  | 159 |
| Administrative Expenses |  | 3,342 |  | 2,819 |  | 2,707 |  | 3,016 |  | 4,773 |  | 3,522 |  | 3,213 |  | 3,885 |  | 4,401 |  | 4,739 |
| Total Deductions |  | 1,203,119 |  | 1,206,548 |  | 1,205,731 |  | 1,196,731 |  | 1,190,861 |  | 1,182,024 |  | 1,156,567 |  | 1,120,357 |  | 1,082,422 |  | 1,038,405 |
| Total Changes in Fiduciary Net Position | \$ | 370,086 | \$ | $(432,073)$ | \$ | $(382,837)$ | \$ | 595,186 | \$ | $(27,985)$ | \$ | $(803,767)$ | \$ | 553,995 | \$ | 58,745 | \$ | $(3,082,055)$ | \$ | $(875,683)$ |
| Fiduciary Net Position |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Beginning of Year |  | 7,129,005 |  | 7,561,078 |  | 7,943,915 |  | 7,348,729 |  | 7,376,714 |  | 8,180,481 |  | 7,626,486 |  | 7,567,741 |  | 10,649,796 |  | 11,525,479 |
| End of Year | \$ | 7,499,091 | \$ | 7,129,005 | \$ | 7,561,078 | \$ | 7,943,915 | \$ | 7,348,729 | \$ | 7,376,714 | \$ | 8,180,481 | \$ | 7,626,486 | \$ | 7,567,741 | \$ | 10,649,796 |
| Employer Contributions: \% of Covered Payroll |  | 4.9\% |  | 5.1\% |  | 4.1\% |  | 4.2\% |  | 2.6\% |  | 2.5\% |  | 1.4\% |  | 1.5\% |  | 3.1\% |  | 2.2\% |

${ }^{1}$ "Investment income" reflects dividends, interest, realized capital gains, and unrealized gains and losses.
2"Miscellaneous" includes restorations of employee contributions.

Schedules of Changes in Fiduciary Net Position (cont.)

## PERS Plan 2/3

Dollars in Thousands

|  |  | 6/30/2017 |  | 6/30/2016 |  | 6/30/2015 |  | 6/30/2014 |  | 6/30/2013 |  | 6/30/2012 |  | 6/30/2011 |  | 6/30/2010 |  | 6/30/2009 |  | 6/30/2008 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Additions by Source |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Employer Contributions | \$ | 621,927 | \$ | 563,328 | \$ | 446,127 | \$ | 430,345 | \$ | 389,020 | \$ | 385,253 | \$ | 328,258 | \$ | 327,460 | \$ | 439,744 | \$ | 318,740 |
| Employee Contributions |  | 486,407 |  | 472,528 |  | 355,350 |  | 346,270 |  | 315,755 |  | 310,160 |  | 263,885 |  | 264,231 |  | 368,127 |  | 268,573 |
| Investment Income (Loss) ${ }^{1}$ |  | 4,312,935 |  | 725,476 |  | 1,295,320 |  | 4,444,937 |  | 2,556,131 |  | 284,681 |  | 3,468,458 |  | 1,868,154 |  | $(4,058,631)$ |  | $(224,724)$ |
| Transfers |  | 385 |  | 360 |  | 206 |  | 141 |  | 293 |  | 270 |  | 4,036 |  | 11,611 |  | 722 |  | 316 |
| Miscellaneous ${ }^{2}$ |  | 46,347 |  | 37,477 |  | 31,176 |  | 32,830 |  | 29,922 |  | 24,765 |  | 26,818 |  | 15,749 |  | 14,157 |  | 17,245 |
| Total Additions |  | 5,468,001 |  | 1,799,169 |  | 2,128,179 |  | 5,254,523 |  | 3,291,121 |  | 1,005,129 |  | 4,091,455 |  | 2,487,205 |  | $(3,235,881)$ |  | 380,150 |
| Deductions by Type |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Benefits |  | 894,229 |  | 776,213 |  | 665,408 |  | 565,660 |  | 460,074 |  | 376,999 |  | 310,943 |  | 251,765 |  | 207,319 |  | 170,317 |
| Refunds |  | 37,374 |  | 36,302 |  | 35,497 |  | 35,202 |  | 35,679 |  | 35,716 |  | 33,686 |  | 31,425 |  | 26,442 |  | 26,574 |
| Transfers |  | 5,999 |  | 4,740 |  | 1,823 |  | 2,441 |  | 5,538 |  | 2,180 |  | 8,528 |  | 5,407 |  | 8,903 |  | 70,935 |
| Administrative Expenses |  | 14,218 |  | 12,023 |  | 10,591 |  | 9,977 |  | 10,560 |  | 9,082 |  | 8,325 |  | 8,643 |  | 8,277 |  | 9,889 |
| Total Deductions |  | 951,820 |  | 829,278 |  | 713,319 |  | 613,280 |  | 511,851 |  | 423,977 |  | 361,482 |  | 297,240 |  | 250,941 |  | 277,715 |
| Total Changes in Fiduciary Net Position | \$ | 4,516,181 | \$ | 969,891 | \$ | 1,414,860 | \$ | 4,641,243 | \$ | 2,779,270 | \$ | 581,152 | \$ | 3,729,973 | \$ | 2,189,965 | \$ | $(3,486,822)$ | \$ | 102,435 |
| Fiduciary Net Position |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Beginning of Year |  | 30,485,052 |  | 29,515,161 |  | 28,100,301 |  | 23,459,058 |  | 20,679,788 |  | 20,098,636 |  | 16,368,663 |  | 14,178,698 |  | 17,665,520 |  | 17,563,085 |
| End of Year | \$ | 35,001,233 | \$ | 30,485,052 | \$ | 29,515,161 | \$ | 28,100,301 | \$ | 23,459,058 | \$ | 20,679,788 | \$ | 20,098,636 | \$ | 16,368,663 | \$ | 14,178,698 | \$ | 17,665,520 |
| Employer Contributions: <br> \% of Covered Payroll |  | 6.3\% |  | 6.0\% |  | 5.0\% |  | 5.0\% |  | 4.7\% |  | 4.7\% |  | 4.0\% |  | 4.0\% |  | 5.4\% |  | 4.1\% |

${ }^{1}$ "Investment income" reflects dividends, interest, realized capital gains, and unrealized gains and losses.
${ }^{2}$ "Miscellaneous" includes restorations of employee contributions.

## ฐ Schedules of Changes in Fiduciary Net Position (cont.)


${ }^{1}$ "Investment income" reflects dividends, interest, realized capital gains, and unrealized gains and losses.
2 "Miscellaneous" includes restorations of employee contributions.

Schedules of Changes in Fiduciary Net Position (cont.)

| SERS Plan 2/3 <br> Dollars in Thousands | 6/30/2017 |  | 6/30/2016 |  | 6/30/2015 |  | 6/30/2014 |  | 6/30/2013 |  | 6/30/2012 |  | 6/30/2011 |  | 6/30/2010 |  | 6/30/2009 |  | 6/30/2008 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Additions by Source |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Employer Contributions | \$ | 134,727 | \$ | 115,480 | \$ | 97,386 | \$ | 88,783 | \$ | 78,400 | \$ | 74,640 | \$ | 62,316 | \$ | 62,090 | \$ | 63,526 | \$ | 52,139 |
| Employee Contributions |  | 51,627 |  | 45,946 |  | 34,939 |  | 31,305 |  | 26,018 |  | 24,095 |  | 19,247 |  | 20,105 |  | 26,062 |  | 20,726 |
| Investment Income (Loss) ${ }^{1}$ |  | 597,914 |  | 100,211 |  | 178,042 |  | 607,984 |  | 348,956 |  | 38,452 |  | 473,113 |  | 255,525 |  | $(560,165)$ |  | $(29,922)$ |
| Transfers |  | 29 |  | 27 |  | 49 |  | 42 |  | 6 |  | 11 |  | 413 |  | 431 |  | 2,050 |  | 2,118 |
| Miscellaneous ${ }^{2}$ |  | 2,276 |  | 3,233 |  | 2,435 |  | 2,334 |  | 782 |  | 1,635 |  | 1,719 |  | 1,521 |  | 1,517 |  | 1,398 |
| Total Additions |  | 786,573 |  | 264,897 |  | 312,851 |  | 730,448 |  | 454,162 |  | 138,833 |  | 556,808 |  | 339,672 |  | $(467,010)$ |  | 46,459 |
| Deductions by Type |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Benefits |  | 130,039 |  | 112,753 |  | 96,184 |  | 81,216 |  | 66,426 |  | 53,630 |  | 43,338 |  | 34,449 |  | 28,307 |  | 22,627 |
| Refunds |  | 3,227 |  | 2,494 |  | 2,891 |  | 2,732 |  | 2,655 |  | 2,516 |  | 2,492 |  | 2,125 |  | 2,125 |  | 2,045 |
| Transfers |  | 2,606 |  | 1,242 |  | 630 |  | 504 |  | 330 |  | 454 |  | 423 |  | 8,141 |  | 956 |  | 89,481 |
| Administrative Expenses |  | 1,460 |  | 1,782 |  | 1,644 |  | 1,543 |  | 137 |  | 1,403 |  | 1,484 |  | 1,384 |  | 1,327 |  | 1,267 |
| Total Deductions |  | 137,332 |  | 118,271 |  | 101,349 |  | 85,995 |  | 69,548 |  | 58,003 |  | 47,737 |  | 46,099 |  | 32,715 |  | 115,420 |
| Total Changes in Fiduciary Net Position | \$ | 649,241 | \$ | 146,626 | \$ | 211,502 | \$ | 644,453 | \$ | 384,614 | \$ | 80,830 | \$ | 509,071 | \$ | 293,573 | \$ | $(499,725)$ | \$ | $(68,961)$ |
| Fiduciary Net Position |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Beginning of Year |  | 4,214,481 |  | 4,067,855 |  | 3,856,353 |  | 3,211,900 |  | 2,827,286 |  | 2,746,456 |  | 2,237,385 |  | 1,943,812 |  | 2,443,537 |  | 2,512,498 |
| End of Year | \$ | 4,863,722 | \$ | 4,214,481 | \$ | 4,067,855 | \$ | 3,856,353 | \$ | 3,211,900 | \$ | 2,827,286 | \$ | 2,746,456 | \$ | 2,237,385 | \$ | 1,943,812 | \$ | 2,443,537 |
| Employer Contributions: \% of Covered Payroll |  | 6.6\% |  | 6.2\% |  | 5.7\% |  | 5.5\% |  | 5.1\% |  | 4.6\% |  | 3.8\% |  | 3.8\% |  | 4.0\% |  | 3.4\% |

1 "Investment income" reflects dividends, interest, realized capital gains, and unrealized gains and losses.
2 "Miscellaneous" includes restorations of employee contributions.
$\breve{\mathrm{m}}$ Schedules of Changes in Fiduciary Net Position (cont.)

| SERS Plan 3 <br> Dollars in Thousands |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 6/30/2017 |  | 6/30/2016 |  | 6/30/2015 |  | 6/30/2014 |  | 6/30/2013 |  | 6/30/2012 |  | 6/30/2011 |  | 6/30/2010 |  | 6/30/2009 |  | 6/30/2008 |
| Additions by Source |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Employer Contributions | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - |
| Employee Contributions |  | 71,737 |  | 67,713 |  | 62,645 |  | 60,766 |  | 59,257 |  | 59,021 |  | 60,313 |  | 60,328 |  | 59,422 |  | 58,381 |
| Investment Income (Loss) ${ }^{1}$ |  | 225,696 |  | 32,171 |  | 62,821 |  | 245,336 |  | 147,193 |  | 10,372 |  | 209,367 |  | 108,480 |  | $(230,415)$ |  | $(27,970)$ |
| Transfers |  | 2,498 |  | 1,102 |  | 825 |  | 682 |  | 466 |  | 407 |  | 500 |  | 445 |  | 455 |  | 89,449 |
| Miscellaneous ${ }^{2}$ |  | 564 |  | 330 |  | 224 |  | 227 |  | 230 |  | 245 |  | 238 |  | 193 |  | 196 |  | 202 |
| Total Additions |  | 300,495 |  | 101,316 |  | 126,515 |  | 307,011 |  | 207,146 |  | 70,045 |  | 270,418 |  | 169,446 |  | $(170,342)$ |  | 120,062 |
| Deductions by Type |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Benefits |  | 4,055 |  | 2,610 |  | 1,526 |  | 854 |  | 463 |  | 302 |  | 182 |  | 91 |  | 62 |  | 8 |
| Refunds |  | 85,577 |  | 85,019 |  | 86,293 |  | 73,826 |  | 65,643 |  | 60,929 |  | 53,242 |  | 33,916 |  | 42,041 |  | 39,815 |
| Transfers |  | 258 |  | 311 |  | 270 |  | 302 |  | 190 |  | 163 |  | 597 |  | 416 |  | 520 |  | 183 |
| Administrative Expenses |  | 564 |  | 330 |  | 224 |  | 227 |  | 230 |  | 245 |  | 237 |  | 193 |  | 195 |  | 202 |
| Total Deductions |  | 90,454 |  | 88,270 |  | 88,313 |  | 75,209 |  | 66,526 |  | 61,639 |  | 54,258 |  | 34,616 |  | 42,818 |  | 40,208 |
| Total Changes in Fiduciary Net Position | \$ | 210,041 | \$ | 13,046 | \$ | 38,202 | \$ | 231,802 | \$ | 140,620 | \$ | 8,406 | \$ | 216,160 | \$ | 134,830 | \$ | $(213,160)$ | \$ | 79,854 |
| Fiduciary Net Position |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Beginning of Year |  | 1,701,518 |  | 1,688,472 |  | 1,650,270 |  | 1,418,468 |  | 1,277,848 |  | 1,269,442 |  | 1,053,282 |  | 918,452 |  | 1,131,612 |  | 1,051,758 |
| End of Year | \$ | 1,911,559 | \$ | 1,701,518 | \$ | 1,688,472 | \$ | 1,650,270 | \$ | 1,418,468 | \$ | 1,277,848 | \$ | 1,269,442 | \$ | 1,053,282 | \$ | 918,452 | \$ | 1,131,612 |
| Employer Contributions: \% of Covered Payroll |  | n/a |  | n/a |  | n/a |  | n/a |  | n/a |  | n/a |  | n/a |  | n/a |  | n/a |  | n/a |

1 "Investment income" reflects dividends, interest, realized capital gains, and unrealized gains and losses.
2 "Miscellaneous" includes restorations of employee contributions.

Schedules of Changes in Fiduciary Net Position (cont.)

## PSERS Plan 2

Dollars in Thousands

|  |  | 6/30/2017 |  | 6/30/2016 |  | 6/30/2015 |  | 6/30/2014 |  | 6/30/2013 |  | 6/30/2012 |  | 6/30/2011 |  | 6/30/2010 |  | 6/30/2009 |  | 30/2008 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Additions by Source |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Employer Contributions | \$ | 23,238 | \$ | 20,058 | \$ | 18,704 | \$ | 17,124 | \$ | 15,650 | \$ | 15,285 | \$ | 15,591 | \$ | 15,238 | \$ | 14,510 | \$ | 11,700 |
| Employee Contributions |  | 23,409 |  | 21,134 |  | 18,650 |  | 17,344 |  | 15,798 |  | 15,228 |  | 15,353 |  | 15,213 |  | 14,557 |  | 11,740 |
| Investment Income (Loss) ${ }^{1}$ |  | 59,852 |  | 10,097 |  | 15,082 |  | 45,144 |  | 22,468 |  | 2,778 |  | 21,255 |  | 7,358 |  | $(9,383)$ |  | (765) |
| Transfers |  | 5 |  | 1 |  | 1 |  | 5 |  | 4 |  | 8 |  | 5 |  | 32 |  | - |  | 3 |
| Miscellaneous ${ }^{2}$ |  | 507 |  | 173 |  | 146 |  | 212 |  | 81 |  | 141 |  | 124 |  | 45 |  | 30 |  | 14 |
| Total Additions |  | 107,011 |  | 51,463 |  | 52,583 |  | 79,829 |  | 54,001 |  | 33,440 |  | 52,328 |  | 37,886 |  | 19,714 |  | 22,692 |
| Deductions by Type |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Benefits |  | 1,148 |  | 630 |  | 444 |  | 256 |  | 148 |  | 70 |  | 35 |  | 17 |  | 5 |  | - |
| Refunds |  | 2,630 |  | 2,647 |  | 2,612 |  | 2,194 |  | 2,186 |  | 1,921 |  | 1,780 |  | 928 |  | 466 |  | 152 |
| Transfers |  | 85 |  | 90 |  | - |  | - |  | 4 |  | 6 |  | 3 |  | 2 |  | 3 |  | 2 |
| Administrative Expenses |  | 212 |  | 150 |  | 116 |  | 104 |  | 1 |  | 70 |  | 82 |  | 50 |  | 40 |  | 26 |
| Total Deductions |  | 4,075 |  | 3,517 |  | 3,172 |  | 2,554 |  | 2,339 |  | 2,067 |  | 1,900 |  | 997 |  | 514 |  | 180 |
| Total Changes in Fiduciary Net Position | \$ | 102,936 | \$ | 47,946 | \$ | 49,411 | \$ | 77,275 | \$ | 51,662 | \$ | 31,373 | \$ | 50,428 | \$ | 36,889 | \$ | 19,200 | \$ | 22,512 |
| Fiduciary Net Position |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Beginning of Year |  | 400,741 |  | 352,795 |  | 303,384 |  | 226,109 |  | 174,447 |  | 143,074 |  | 92,646 |  | 55,757 |  | 36,557 |  | 14,045 |
| End of Year | \$ | 503,677 | \$ | 400,741 | \$ | 352,795 | \$ | 303,384 | \$ | 226,109 | \$ | 174,447 | \$ | 143,074 | \$ | 92,646 | \$ | 55,757 | \$ | 36,557 |
| Employer Contributions: <br> \% of Covered Payroll |  | 6.5\% |  | 6.2\% |  | 6.4\% |  | 6.3\% |  | 6.3\% |  | 6.5\% |  | 6.7\% |  | 6.5\% |  | 6.5\% |  | 6.5\% |

${ }^{1}$ "Investment income" reflects dividends, interest, realized capital gains, and unrealized gains and losses.
2"Miscellaneous" includes restorations of employee contributions.
$\stackrel{\rightharpoonup}{\mathrm{a}}$ Schedules of Changes in Fiduciary Net Position (cont.)

| TRS Plan 1 <br> Dollars in Thousands |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 6/30/2017 |  | 6/30/2016 |  | 6/30/2015 |  | 6/30/2014 |  | 6/30/2013 |  | 6/30/2012 |  | 6/30/2011 |  | 6/30/2010 |  | 6/30/2009 |  | 6/30/2008 |
| Additions by Source |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Employer Contributions | \$ | 348,968 | \$ | 315,934 | \$ | 223,886 | \$ | 200,674 | \$ | 118,569 | \$ | 111,937 | \$ | 96,803 | \$ | 112,731 | \$ | 178,850 | \$ | 113,089 |
| Employee Contributions |  | 3,846 |  | 5,059 |  | 6,846 |  | 9,039 |  | 11,369 |  | 14,098 |  | 17,631 |  | 20,930 |  | 23,810 |  | 26,480 |
| Investment Income (Loss) ${ }^{1}$ |  | 728,987 |  | 118,306 |  | 269,746 |  | 1,079,807 |  | 720,704 |  | 73,203 |  | 1,279,513 |  | 813,504 |  | $(1,979,081)$ |  | $(93,982)$ |
| Transfers |  | - |  | - |  | - |  | 51 |  | - |  | 38 |  | 1 |  | 5 |  | 27 |  | 5 |
| Miscellaneous ${ }^{2}$ |  | 5,507 |  | 5,966 |  | 5,758 |  | 7,956 |  | 8,207 |  | 6,228 |  | 10,792 |  | 6,827 |  | 7,011 |  | 7,870 |
| Total Additions |  | 1,087,308 |  | 445,265 |  | 506,236 |  | 1,297,527 |  | 858,849 |  | 205,504 |  | 1,404,740 |  | 953,997 |  | $(1,769,383)$ |  | 53,462 |
| Deductions by Type |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Benefits |  | 911,058 |  | 924,377 |  | 927,015 |  | 925,975 |  | 914,610 |  | 913,864 |  | 899,819 |  | 859,250 |  | 850,262 |  | 844,986 |
| Refunds |  | 1,256 |  | 1,182 |  | 1,555 |  | 2,262 |  | 1,989 |  | 1,552 |  | 1,820 |  | 1,504 |  | 1,260 |  | 1,000 |
| Transfers |  | 407 |  | 386 |  | - |  | - |  | 578 |  | 223 |  | 159 |  | 118 |  | 1,449 |  | 82 |
| Administrative Expenses |  | 2,445 |  | 2,015 |  | 1,985 |  | 2,195 |  | 3,965 |  | 2,699 |  | 2,686 |  | 3,125 |  | 3,266 |  | 3,646 |
| Total Deductions |  | 915,166 |  | 927,960 |  | 930,555 |  | 930,432 |  | 921,142 |  | 918,338 |  | 904,484 |  | 863,997 |  | 856,237 |  | 849,714 |
| Total Changes in Fiduciary Net Position | \$ | 172,142 | \$ | $(482,695)$ | \$ | $(424,319)$ | \$ | 367,095 | \$ | $(62,293)$ | \$ | $(712,834)$ | \$ | 500,256 | \$ | 90,000 | \$ | $(2,625,620)$ | \$ | $(796,252)$ |
| Fiduciary Net Position |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Beginning of Year |  | 5,589,271 |  | 6,071,966 |  | 6,496,285 |  | 6,129,190 |  | 6,191,483 |  | 6,904,317 |  | 6,404,061 |  | 6,314,061 |  | 8,939,681 |  | 9,735,933 |
| End of Year | \$ | 5,761,413 | \$ | 5,589,271 | \$ | 6,071,966 | \$ | 6,496,285 | \$ | 6,129,190 | \$ | 6,191,483 | \$ | 6,904,317 | \$ | 6,404,061 | \$ | 6,314,061 | \$ | 8,939,681 |
| Employer Contributions: \% of Covered Payroll |  | 6.3\% |  | 6.2\% |  | 4.7\% |  | 4.4\% |  | 2.7\% |  | 2.5\% |  | 2.1\% |  | 2.5\% |  | 4.0\% |  | 2.7\% |

1 "Investment income" reflects dividends, interest, realized capital gains, and unrealized gains and losses.
2 "Miscellaneous" includes restorations of employee contributions.

Schedules of Changes in Fiduciary Net Position (cont.)

## TRS Plan 2/3

Dollars in Thousands

|  |  | 6/30/2017 |  | 6/30/2016 |  | 6/30/2015 |  | 6/30/2014 |  | 6/30/2013 |  | 6/30/2012 |  | 6/30/2011 |  | 6/30/2010 |  | 6/30/2009 |  | 6/30/2008 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Additions by Source |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Employer Contributions | \$ | 364,106 | \$ | 316,022 | \$ | 267,038 | \$ | 249,342 | \$ | 228,974 | \$ | 213,852 | \$ | 168,264 | \$ | 164,959 | \$ | 160,793 | \$ | 109,523 |
| Employee Contributions |  | 75,481 |  | 64,263 |  | 47,206 |  | 41,081 |  | 34,494 |  | 29,829 |  | 21,881 |  | 21,126 |  | 23,277 |  | 14,739 |
| Investment Income (Loss) ${ }^{1}$ |  | 1,539,464 |  | 258,964 |  | 453,535 |  | 1,539,901 |  | 877,562 |  | 96,411 |  | 1,175,293 |  | 629,396 |  | $(1,383,054)$ |  | $(73,457)$ |
| Transfers |  | 118 |  | 71 |  | 41 |  | 45 |  | 34 |  | 16 |  | 850 |  | 724 |  | 547 |  | 339 |
| Miscellaneous ${ }^{2}$ |  | 9,163 |  | 10,386 |  | 11,278 |  | 8,260 |  | 4,178 |  | 5,476 |  | 5,416 |  | 4,551 |  | 4,429 |  | 4,432 |
| Total Additions |  | 1,988,332 |  | 649,706 |  | 779,098 |  | 1,838,629 |  | 1,145,242 |  | 345,584 |  | 1,371,704 |  | 820,756 |  | $(1,194,008)$ |  | 55,576 |
| Deductions by Type |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Benefits |  | 254,721 |  | 218,011 |  | 183,212 |  | 149,522 |  | 116,662 |  | 91,400 |  | 72,138 |  | 55,654 |  | 44,795 |  | 36,016 |
| Refunds |  | 3,010 |  | 2,971 |  | 2,840 |  | 1,988 |  | 2,914 |  | 2,169 |  | 2,281 |  | 2,868 |  | 2,189 |  | 2,190 |
| Transfers |  | 3,462 |  | 1,934 |  | 659 |  | 445 |  | 858 |  | 652 |  | 390 |  | 369 |  | 2,670 |  | 168,866 |
| Administrative Expenses |  | 3,192 |  | 5,321 |  | 4,909 |  | 4,585 |  | 2,830 |  | 4,020 |  | 4,273 |  | 3,932 |  | 3,824 |  | 3,629 |
| Total Deductions |  | 264,385 |  | 228,237 |  | 191,620 |  | 156,540 |  | 123,264 |  | 98,241 |  | 79,082 |  | 62,823 |  | 53,478 |  | 210,701 |
| Total Changes in Fiduciary Net Position | \$ | 1,723,947 | \$ | 421,469 | \$ | 587,478 | \$ | 1,682,089 | \$ | 1,021,978 | \$ | 247,343 | \$ | 1,292,622 | \$ | 757,933 | \$ | $(1,247,486)$ | \$ | $(155,125)$ |
| Fiduciary Net Position |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Beginning of Year |  | 10,800,260 |  | 10,378,791 |  | 9,791,313 |  | 8,109,224 |  | 7,087,246 |  | 6,839,903 |  | 5,547,281 |  | 4,789,348 |  | 6,036,834 |  | 6,191,959 |
| End of Year | \$ | 12,524,207 | \$ | 10,800,260 | \$ | 10,378,791 | \$ | 9,791,313 | \$ | 8,109,224 | \$ | 7,087,246 | \$ | 6,839,903 | \$ | 5,547,281 | \$ | 4,789,348 | \$ | 6,036,834 |
| Employer Contributions: \% of Covered Payroll |  | 6.7\% |  | 6.3\% |  | 5.7\% |  | 5.6\% |  | 5.5\% |  | 5.1\% |  | 4.0\% |  | 4.1\% |  | 4.1\% |  | 3.0\% |

${ }^{1}$ "Investment income" reflects dividends, interest, realized capital gains, and unrealized gains and losses.
2"Miscellaneous" includes restorations of employee contributions.
$\stackrel{\rightharpoonup}{w}$ Schedules of Changes in Fiduciary Net Position (cont.)

| TRS Plan 3 <br> Dollars in Thousands | 6/30/2017 |  | 6/30/2016 |  | 6/30/2015 |  | 6/30/2014 |  | 6/30/2013 |  | 6/30/2012 |  | 6/30/2011 |  | 6/30/2010 |  | 6/30/2009 |  | 6/30/2008 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Additions by Source |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Employer Contributions | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - |
| Employee Contributions |  | 322,155 |  | 309,813 |  | 286,156 |  | 273,656 |  | 262,293 |  | 255,867 |  | 257,718 |  | 254,197 |  | 247,891 |  | 234,661 |
| Investment Income (Loss) ${ }^{1}$ |  | 1,000,359 |  | 125,289 |  | 256,717 |  | 1,044,040 |  | 627,742 |  | 34,065 |  | 866,178 |  | 424,811 |  | $(864,630)$ |  | $(177,645)$ |
| Transfers |  | 3,542 |  | 1,585 |  | 1,372 |  | 1,115 |  | 839 |  | 618 |  | 650 |  | 598 |  | 971 |  | 168,817 |
| Miscellaneous ${ }^{2}$ |  | 2,054 |  | 1,159 |  | 789 |  | 784 |  | 775 |  | 811 |  | 767 |  | 610 |  | 605 |  | 597 |
| Total Additions |  | 1,328,110 |  | 437,846 |  | 545,034 |  | 1,319,595 |  | 891,649 |  | 291,361 |  | 1,125,313 |  | 680,216 |  | $(615,163)$ |  | 226,430 |
| Deductions by Type |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Benefits |  | 14,687 |  | 10,034 |  | 5,924 |  | 3,084 |  | 1,569 |  | 1,149 |  | 542 |  | 257 |  | 128 |  | 45 |
| Refunds |  | 285,910 |  | 289,785 |  | 269,378 |  | 235,635 |  | 176,052 |  | 150,404 |  | 115,571 |  | 71,665 |  | 76,166 |  | 84,776 |
| Transfers |  | 948 |  | 938 |  | 717 |  | 721 |  | 522 |  | 520 |  | 1,368 |  | 1,084 |  | 550 |  | 512 |
| Administrative Expenses |  | 2,054 |  | 1,158 |  | 788 |  | 784 |  | 775 |  | 811 |  | 767 |  | 610 |  | 605 |  | 597 |
| Total Deductions |  | 303,599 |  | 301,915 |  | 276,807 |  | 240,224 |  | 178,918 |  | 152,884 |  | 118,248 |  | 73,616 |  | 77,449 |  | 85,930 |
| Total Changes in Fiduciary Net Position | \$ | 1,024,511 | \$ | 135,931 | \$ | 268,227 | \$ | 1,079,371 | \$ | 712,731 | \$ | 138,477 | \$ | 1,007,065 | \$ | 606,600 | \$ | $(692,612)$ | \$ | 140,500 |
| Fiduciary Net Position |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Beginning of Year |  | 7,367,109 |  | 7,231,178 |  | 6,962,951 |  | 5,883,580 |  | 5,170,849 |  | 5,032,372 |  | 4,025,307 |  | 3,418,707 |  | 4,111,319 |  | 3,970,819 |
| End of Year | \$ | 8,391,620 | \$ | 7,367,109 | \$ | 7,231,178 | \$ | 6,962,951 | \$ | 5,883,580 | \$ | 5,170,849 | \$ | 5,032,372 | \$ | 4,025,307 | \$ | 3,418,707 | \$ | 4,111,319 |
| Employer Contributions: \% of Covered Payroll |  | $\mathrm{n} / \mathrm{a}$ |  | n/a |  | n/a |  | n/a |  | n/a |  | n/a |  | n/a |  | n/a |  | n/a |  | n/a |

1 "Investment income" reflects dividends, interest, realized capital gains, and unrealized gains and losses.
2 "Miscellaneous" includes restorations of employee contributions.

## Schedules of Changes in Fiduciary Net Position (cont.)

| LEOFF Plan 1 <br> Dollars in Thousands |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 6/30/2017 |  | 6/30/2016 |  | 6/30/2015 |  | 6/30/2014 |  | 6/30/2013 |  | 6/30/2012 |  | 6/30/2011 |  | 6/30/2010 |  | 6/30/2009 |  | 6/30/2008 |
| Additions by Source |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Employer Contributions | \$ | - | \$ | - | \$ | 60 | \$ | 98 | \$ | 555 | \$ | 2 | \$ | 3 | \$ | 49 | \$ | 216 | \$ | 8 |
| Employee Contributions |  | - |  | - |  | 47 |  | - |  | - |  | - |  | - |  | 1 |  | 154 |  | - |
| Investment Income (Loss) ${ }^{1}$ |  | 723,823 |  | 120,952 |  | 248,796 |  | 934,125 |  | 586,475 |  | 61,152 |  | 937,507 |  | 566,844 |  | (1,353,904) |  | $(68,055)$ |
| Transfers |  | - |  | - |  | 237 |  | - |  | - |  | - |  | - |  | 112 |  | 173 |  | - |
| Miscellaneous ${ }^{2}$ |  | 4,342 |  | 2,973 |  | 3,071 |  | 2,931 |  | 4,300 |  | 3,393 |  | 3,130 |  | 3,913 |  | 2,658 |  | 3,185 |
| Total Additions |  | 728,165 |  | 123,925 |  | 252,211 |  | 937,154 |  | 591,330 |  | 64,547 |  | 940,640 |  | 570,919 |  | $(1,350,703)$ |  | $(64,862)$ |
| Deductions by Type |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Benefits |  | 360,060 |  | 360,484 |  | 358,411 |  | 355,740 |  | 351,796 |  | 343,438 |  | 338,775 |  | 338,231 |  | 327,033 |  | 313,530 |
| Refunds |  | 8 |  | 538 |  | 334 |  | 248 |  | 14 |  | 435 |  | 48 |  | 14 |  | 193 |  | 150 |
| Transfers |  | 405 |  | 371 |  | - |  | - |  | 484 |  | 176 |  | 331 |  | 83 |  | 998 |  | 56 |
| Administrative Expenses |  | 2,391 |  | 1,938 |  | 1,822 |  | 1,851 |  | 2,882 |  | 2,064 |  | 1,891 |  | 2,146 |  | 2,339 |  | 2,417 |
| Total Deductions |  | 362,864 |  | 363,331 |  | 360,567 |  | 357,839 |  | 355,176 |  | 346,113 |  | 341,045 |  | 340,474 |  | 330,563 |  | 316,153 |
| Total Changes in Fiduciary Net Position | \$ | 365,301 | \$ | $(239,406)$ | \$ | $(108,356)$ | \$ | 579,315 | \$ | 236,154 | \$ | $(281,566)$ | \$ | 599,595 | \$ | 230,445 | \$ | $(1,681,266)$ | \$ | $(381,015)$ |
| Fiduciary Net Position |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Beginning of Year |  | 5,372,094 |  | 5,611,500 |  | 5,719,856 |  | 5,140,541 |  | 4,904,387 |  | 5,185,953 |  | 4,586,358 |  | 4,355,913 |  | 6,037,179 |  | 6,418,194 |
| End of Year | \$ | 5,737,395 | \$ | 5,372,094 | \$ | 5,611,500 | \$ | 5,719,856 | \$ | 5,140,541 | \$ | 4,904,387 | \$ | 5,185,953 | \$ | 4,586,358 | \$ | 4,355,913 | \$ | 6,037,179 |
| Employer Contributions: <br> \% of Covered Payroll |  | 0.0\% |  | 0.0\% |  | 0.6\% |  | 0.7\% |  | 3.4\% |  | 0.0\% |  | 0.0\% |  | 0.2\% |  | 0.5\% |  | 0.0\% |

${ }^{1}$ "Investment income" reflects dividends, interest, realized capital gains, and unrealized gains and losses.
2 "Miscellaneous" includes restorations of employee contributions.
$\stackrel{\rightharpoonup}{\Phi}$ Schedules of Changes in Fiduciary Net Position (cont.)

| LEOFF Plan 2 <br> Dollars in Thousands |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 6/30/2017 |  | 6/30/2016 |  | 6/30/2015 |  | 6/30/2014 |  | 6/30/2013 |  | 6/30/2012 |  | 6/30/2011 |  | 6/30/2010 |  | 6/30/2009 |  | 6/30/2008 |
| Additions by Source |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Employer Contributions | \$ | 95,920 | \$ | 92,049 | \$ | 89,122 | \$ | 85,532 | \$ | 82,397 | \$ | 80,480 | \$ | 79,733 | \$ | 76,998 | \$ | 77,849 | \$ | 73,364 |
| Employee Contributions |  | 158,316 |  | 151,659 |  | 146,679 |  | 140,921 |  | 135,797 |  | 132,584 |  | 131,252 |  | 128,154 |  | 128,206 |  | 115,567 |
| State Contributions |  | 62,155 |  | 60,375 |  | 58,339 |  | 55,551 |  | 54,246 |  | 52,770 |  | 52,024 |  | 51,376 |  | 51,137 |  | 45,926 |
| Investment Income (Loss) ${ }^{1}$ |  | 1,448,382 |  | 244,054 |  | 430,410 |  | 1,456,269 |  | 825,071 |  | 92,867 |  | 1,084,240 |  | 568,518 |  | $(1,223,154)$ |  | $(70,257)$ |
| Transfers |  | 5 |  | 23 |  | - |  | 265 |  | 1,833 |  | 10 |  | 2,936 |  | 1,010 |  | 1,218 |  | 117 |
| Miscellaneous ${ }^{2}$ |  | 34,658 |  | 26,273 |  | 22,776 |  | 13,496 |  | 9,351 |  | 9,220 |  | 7,754 |  | 7,447 |  | 4,466 |  | 2,987 |
| Total Additions |  | 1,799,436 |  | 574,433 |  | 747,326 |  | 1,752,034 |  | 1,108,695 |  | 367,931 |  | 1,357,939 |  | 833,503 |  | $(960,278)$ |  | 167,704 |
| Deductions by Type |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Benefits |  | 219,715 |  | 184,067 |  | 151,486 |  | 124,921 |  | 100,532 |  | 78,153 |  | 61,876 |  | 46,158 |  | 36,615 |  | 27,505 |
| Refunds |  | 7,292 |  | 6,645 |  | 8,541 |  | 9,028 |  | 8,677 |  | 11,214 |  | 8,181 |  | 10,947 |  | 7,223 |  | 7,639 |
| Transfers |  | 832 |  | 705 |  | 238 |  | 24 |  | 226 |  | 282 |  | 147 |  | 205 |  | 1,146 |  | 49 |
| Administrative Expenses |  | 6,759 |  | 5,305 |  | 4,668 |  | 4,192 |  | 2,566 |  | 3,672 |  | 3,309 |  | 3,416 |  | 2,288 |  | 2,298 |
| Total Deductions |  | 234,598 |  | 196,722 |  | 164,933 |  | 138,165 |  | 112,001 |  | 93,321 |  | 73,513 |  | 60,726 |  | 47,272 |  | 37,491 |
| Total Changes in Fiduciary Net Position | \$ | 1,564,838 | \$ | 377,711 | \$ | 582,393 | \$ | 1,613,869 | \$ | 996,694 | \$ | 274,610 | \$ | 1,284,426 | \$ | 772,777 | \$ | $(1,007,550)$ | \$ | 130,213 |
| Fiduciary Net Position |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Beginning of Year |  | 10,211,360 |  | 9,833,649 |  | 9,251,256 |  | 7,637,387 |  | 6,640,693 |  | 6,366,083 |  | 5,081,657 |  | 4,308,880 |  | 5,316,430 |  | 5,186,217 |
| End of Year | \$ | 11,776,198 | \$ | 10,211,360 | \$ | 9,833,649 | \$ | 9,251,256 | \$ | 7,637,387 | \$ | 6,640,693 | \$ | 6,366,083 | \$ | 5,081,657 | \$ | 4,308,880 | \$ | 5,316,430 |
| Employer Contributions: <br> \% of Covered Payroll |  | 8.4\% |  | 8.5\% |  | 8.5\% |  | 8.4\% |  | 8.5\% |  | 8.5\% |  | 8.5\% |  | 8.5\% |  | 8.9\% |  | 8.9\% |

${ }^{1}$ "Investment income" reflects dividends, interest, realized capital gains, and unrealized gains and losses.
2"Miscellaneous" includes restorations of employee contributions.

Schedules of Changes in Fiduciary Net Position (cont.)

| WSPRS Plan $1 / 2$ <br> Dollars in Thousands |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 6/30/2017 |  | 6/30/2016 |  | 6/30/2015 |  | 6/30/2014 |  | 6/30/2013 |  | 6/30/2012 |  | 6/30/2011 |  | 6/30/2010 |  | 6/30/2009 |  | 6/30/2008 |
| Additions by Source |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Employer Contributions | \$ | 7,587 | \$ | 7,044 | \$ | 6,679 | \$ | 6,587 | \$ | 6,478 | \$ | 6,454 | \$ | 5,251 | \$ | 5,271 | \$ | 6,371 | \$ | 6,064 |
| Employee Contributions |  | 6,365 |  | 5,895 |  | 5,561 |  | 5,489 |  | 5,396 |  | 5,376 |  | 4,166 |  | 4,173 |  | 5,501 |  | 5,239 |
| Investment Income (Loss) ${ }^{1}$ |  | 151,021 |  | 25,354 |  | 49,046 |  | 176,856 |  | 106,664 |  | 11,481 |  | 158,571 |  | 91,335 |  | $(210,676)$ |  | $(10,992)$ |
| Transfers |  | 524 |  | 429 |  | 293 |  | 510 |  | 574 |  | 54 |  | 415 |  | 10 |  | 331 |  | 89 |
| Miscellaneous ${ }^{2}$ |  | 4,603 |  | 3,437 |  | 1,179 |  | 1,467 |  | 1,692 |  | 2,010 |  | 1,385 |  | 1,399 |  | 500 |  | 478 |
| Total Additions |  | 170,100 |  | 42,159 |  | 62,758 |  | 190,909 |  | 120,804 |  | 25,375 |  | 169,788 |  | 102,188 |  | $(197,973)$ |  | 878 |
| Deductions by Type |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Benefits |  | 56,666 |  | 53,651 |  | 49,772 |  | 47,143 |  | 43,521 |  | 40,368 |  | 38,387 |  | 36,116 |  | 34,522 |  | 32,963 |
| Refunds |  | 155 |  | 508 |  | 303 |  | 367 |  | 304 |  | 262 |  | 315 |  | 127 |  | 211 |  | 269 |
| Transfers |  | 86 |  | 76 |  | - |  | - |  | 88 |  | 32 |  | 22 |  | 14 |  | 160 |  | 8 |
| Administrative Expenses |  | 551 |  | 448 |  | 425 |  | 431 |  | 538 |  | 392 |  | 356 |  | 364 |  | 354 |  | 391 |
| Total Deductions |  | 57,458 |  | 54,683 |  | 50,500 |  | 47,941 |  | 44,451 |  | 41,054 |  | 39,080 |  | 36,621 |  | 35,247 |  | 33,631 |
| Total Changes in Fiduciary Net Position | \$ | 112,642 | \$ | $(12,524)$ | \$ | 12,258 | \$ | 142,968 | \$ | 76,353 | \$ | $(15,679)$ | \$ | 130,708 | \$ | 65,567 | \$ | $(233,220)$ | \$ | $(32,753)$ |
| Fiduciary Net Position |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Beginning of Year |  | 1,098,275 |  | 1,110,799 |  | 1,098,541 |  | 955,573 |  | 879,220 |  | 894,899 |  | 764,191 |  | 698,624 |  | 931,844 |  | 964,597 |
| End of Year | \$ | 1,210,917 | \$ | 1,098,275 | \$ | 1,110,799 | \$ | 1,098,541 | \$ | 955,573 | \$ | 879,220 | \$ | 894,899 | \$ | 764,191 | \$ | 698,624 | \$ | 931,844 |
| Employer Contributions: \% of Covered Payroll |  | 8.2\% |  | 8.1\% |  | 7.9\% |  | 7.9\% |  | 7.9\% |  | 7.9\% |  | 6.4\% |  | 6.4\% |  | 7.7\% |  | 7.7\% |

"Investment income" reflects dividends, interest, realized capital gains, and unrealized gains and losses.
2 "Miscellaneous" includes restorations of employee contributions.
$\stackrel{\rightharpoonup}{\mathrm{a}} \quad$ Schedules of Changes in Fiduciary Net Position (cont.)

${ }^{1}$ "Investment income" reflects dividends, interest, realized capital gains, and unrealized gains and losses.
2 "Miscellaneous" includes restorations of employee contributions.

## Schedules of Changes in Fiduciary Net Position (cont.)

| JRF |
| :--- |
| Dollars in Thousands |


|  |  | 6/30/2017 |  | 6/30/2016 |  | 6/30/2015 |  | 6/30/2014 |  | 6/30/2013 |  | 6/30/2012 |  | 6/30/2011 |  | 6/30/2010 |  | 6/30/2009 |  | 6/30/2008 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Additions by Source |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Employer Contributions | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - |
| Employee Contributions |  | - |  | - |  | - |  | - |  | - |  | - |  | - |  | - |  | - |  | - |
| State Contributions |  | 499 |  | 501 |  | - |  | - |  | - |  | - |  | - |  | - |  | - |  | - |
| Investment Income (Loss) ${ }^{1}$ |  | 4 |  | 7 |  | 4 |  | 8 |  | (5) |  | 19 |  | 11 |  | 48 |  | 141 |  | 179 |
| Transfers |  | - |  | - |  | - |  | - |  | - |  | - |  | - |  | - |  | - |  | - |
| Miscellaneous ${ }^{2}$ |  | - |  | - |  | - |  | - |  | - |  | 1 |  | 1 |  | 1 |  | 2 |  | 1 |
| Total Additions |  | 503 |  | 508 |  | 4 |  | 8 |  | (5) |  | 20 |  | 12 |  | 49 |  | 143 |  | 180 |
| Deductions by Type |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Benefits |  | 402 |  | 440 |  | 444 |  | 444 |  | 474 |  | 482 |  | 499 |  | 500 |  | 501 |  | 545 |
| Refunds |  | - |  | - |  | - |  | - |  | - |  | - |  | - |  | - |  | - |  | - |
| Transfers |  | - |  | - |  | - |  | - |  | - |  | - |  | - |  | - |  | 1 |  | - |
| Administrative Expenses |  | - |  | 1 |  | - |  | - |  | 1 |  | 1 |  | 1 |  | 1 |  | 1 |  | 2 |
| Total Deductions |  | 402 |  | 441 |  | 444 |  | 444 |  | 475 |  | 483 |  | 500 |  | 501 |  | 503 |  | 547 |
| Total Changes in Fiduciary Net Position | \$ | 101 | \$ | 67 | \$ | (440) | \$ | (436) | \$ | (480) | \$ | (463) | \$ | (488) | \$ | (452) | \$ | (360) | \$ | (367) |
| Fiduciary Net Position |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Beginning of Year |  | 583 |  | 516 |  | 956 |  | 1,392 |  | 1,872 |  | 2,335 |  | 2,823 |  | 3,275 |  | 3,635 |  | 4,002 |
| End of Year | \$ | 684 | \$ | 583 | \$ | 516 | \$ | 956 | \$ | 1,392 | \$ | 1,872 | \$ | 2,335 | \$ | 2,823 | \$ | 3,275 | \$ | 3,635 |
| Employer Contributions: \% of Covered Payroll |  | n/a |  | n/a |  | n/a |  | n/a |  | n/a |  | n/a |  | n/a |  | n/a |  | n/a |  | n/a |

${ }^{1}$ "Investment income" reflects dividends, interest, realized capital gains, and unrealized gains and losses.
2"Miscellaneous" includes restorations of employee contributions.
$\stackrel{\rightharpoonup}{\mathbf{m}}$ Schedules of Changes in Fiduciary Net Position (cont.)

| JRA <br> Dollars in Thousands | 6/30/2017 |  | 6/30/2016 |  | 6/30/2015 |  | 6/30/2014 |  | 6/30/2013 |  | 6/30/2012 |  | 6/30/2011 |  | 6/30/2010 |  | 6/30/2009 |  | 6/30/2008 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Additions by Source |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Employer Contributions | \$ | 17 | \$ | 21 | \$ | 20 | \$ | 25 | \$ | 32 | \$ | 38 | \$ | 43 | \$ | 43 | \$ | 42 | \$ | 70 |
| Employee Contributions |  | 17 |  | 21 |  | 20 |  | 25 |  | 32 |  | 38 |  | 43 |  | 43 |  | 42 |  | 71 |
| Investment Income (Loss) ${ }^{1}$ |  | 1,143 |  | (5) |  | 150 |  | 1,372 |  | 1,015 |  | (29) |  | 1,940 |  | 985 |  | $(1,910)$ |  | (906) |
| Transfers |  | - |  | - |  | - |  | - |  | - |  | - |  | - |  | - |  | - |  | - |
| Miscellaneous ${ }^{2}$ |  | - |  | - |  | - |  | (2) |  | 2 |  | 5 |  | 5 |  | 3 |  | 12 |  | 6 |
| Total Additions |  | 1,177 |  | 37 |  | 190 |  | 1,420 |  | 1,081 |  | 52 |  | 2,031 |  | 1,074 |  | $(1,814)$ |  | (759) |
| Deductions by Type |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Benefits |  | 1,661 |  | 1,231 |  | 976 |  | 668 |  | 1,071 |  | 810 |  | 445 |  | 389 |  | 461 |  | 6,540 |
| Refunds |  | - |  | - |  | - |  | - |  | - |  | - |  | - |  | 1 |  | - |  | - |
| Transfers |  | - |  | - |  | - |  | - |  | - |  | - |  | - |  | - |  | - |  | - |
| Administrative Expenses |  | - |  | 1 |  | - |  | - |  | - |  | - |  | - |  | - |  | - |  | - |
| Total Deductions |  | 1,661 |  | 1,232 |  | 976 |  | 668 |  | 1,071 |  | 810 |  | 445 |  | 390 |  | 461 |  | 6,540 |
| Total Changes in Fiduciary Net Position | \$ | (484) | \$ | $(1,195)$ | \$ | (786) | \$ | 752 | \$ | 10 | \$ | (758) | \$ | 1,586 | \$ | 684 | \$ | $(2,275)$ | \$ | $(7,299)$ |
| Fiduciary Net Position |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Beginning of Year |  | 11,050 |  | 12,245 |  | 13,031 |  | 12,279 |  | 12,269 |  | 13,027 |  | 11,441 |  | 10,757 |  | 13,032 |  | 20,331 |
| End of Year | \$ | 10,566 | \$ | 11,050 | \$ | 12,245 | \$ | 13,031 | \$ | 12,279 | \$ | 12,269 | \$ | 13,027 | \$ | 11,441 | \$ | 10,757 | \$ | 13,032 |
| Employer Contributions: \% of Covered Payroll |  | n/a |  | n/a |  | $\mathrm{n} / \mathrm{a}$ |  | n/a |  | n/a |  | n/a |  | n/a |  | n/a |  | n/a |  | n/a |

1 "Investment income" reflects dividends, interest, realized capital gains, and unrealized gains and losses.
2 "Miscellaneous" includes restorations of employee contributions.

## Schedules of Changes in Fiduciary Net Position (cont.)

| DCP <br> Dollars in Thousands |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 6/30/2017 |  | 6/30/2016 |  | 6/30/2015 |  | 6/30/2014 |  | 6/30/2013 |  | 6/30/2012 |  | 6/30/2011 |  | 6/30/2010 |  | 6/30/2009 |  | 6/30/2008 |
| Additions by Source |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Participant Contributions | \$ | 287,130 | \$ | 213,531 | \$ | 208,424 | \$ | 190,538 | \$ | 182,305 | \$ | 178,449 | \$ | 186,734 | \$ | 185,120 | \$ | 184,544 | \$ | 188,735 |
| Investment Income (Loss) ${ }^{1}$ |  | 401,891 |  | 12,008 |  | 51,431 |  | 397,083 |  | 263,381 |  | $(12,292)$ |  | 451,033 |  | 203,075 |  | $(344,592)$ |  | $(169,322)$ |
| Charges for Services |  | 2,584 |  | 2,317 |  | 2,347 |  | 1,949 |  | 1,566 |  | 1,677 |  | 1,610 |  | 1,780 |  | 1,405 |  | 838 |
| Transfers |  | - |  | - |  | - |  | - |  | - |  | - |  | - |  | - |  | - |  | - |
| Miscellaneous |  | 14 |  | 3 |  | 11 |  | 314 |  | 527 |  | 794 |  | 1,461 |  | 1,145 |  | 690 |  | 833 |
| Total Additions |  | 691,619 |  | 227,859 |  | 262,213 |  | 589,884 |  | 447,779 |  | 168,628 |  | 640,838 |  | 391,120 |  | $(157,953)$ |  | 21,084 |
| Deductions by Type |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Refunds |  | 232,229 |  | 215,450 |  | 225,334 |  | 212,298 |  | 178,638 |  | 171,741 |  | 149,010 |  | 108,578 |  | 106,645 |  | 135,877 |
| Transfers |  | - |  | - |  | - |  | - |  | - |  | - |  | - |  | - |  | 2 |  | - |
| Administrative Expenses |  | 2,208 |  | 1,941 |  | 2,196 |  | 1,651 |  | 1,568 |  | 1,594 |  | 1,735 |  | 1,512 |  | 1,468 |  | 1,488 |
| Total Deductions |  | 234,437 |  | 217,391 |  | 227,530 |  | 213,949 |  | 180,206 |  | 173,335 |  | 150,745 |  | 110,090 |  | 108,115 |  | 137,365 |
| Total Changes in Fiduciary <br> Net Position <br> Fiduciary Net Position | \$ | 457,182 | \$ | 10,468 | \$ | $34,683$ | \$ | $375,935$ | \$ | 267,573 | \$ | $(4,707)$ | \$ | 490,093 | \$ | 281,030 | \$ | $(266,068)$ | \$ | $(116,281)$ |
| Beginning of Year |  | 3,624,391 |  | 3,613,923 |  | 3,579,240 |  | 3,203,305 |  | 2,935,732 |  | 2,940,439 |  | 2,450,346 |  | 2,169,316 |  | 2,435,384 |  | 2,551,665 |
| End of Year | \$ | 4,081,573 | \$ | 3,624,391 | \$ | 3,613,923 | \$ | 3,579,240 | \$ | 3,203,305 | \$ | 2,935,732 | \$ | 2,940,439 | \$ | 2,450,346 | \$ | 2,169,316 | \$ | 2,435,384 |
| Employer Contributions: \% of Covered Payroll |  | n/a |  | n/a |  | $\mathrm{n} / \mathrm{a}$ |  | n/a |  | n/a |  | n/a |  | n/a |  | n/a |  | n/a |  | n/a |

"Investment income" reflects dividends, interest, realized capital gains, and unrealized gains and losses.

Distribution of Membership by System and Plan
Active Members
For the Years Ended June 30, 2008-2016, and September 30, 2007

| Plan |  | 2016 | 2015 | 2014 | 2013 | 2012 | 2011 | 2010 | 2009 | 2008 | 2007 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| PERS 1 | \% | 1.04\% | 1.30\% | 1.61\% | 1.94\% | 2.29\% | 2.64\% | 3.03\% | 3.43\% | 3.86\% | 4.41\% |
|  | Individuals | 3,227 | 3,927 | 4,782 | 5,653 | 6,635 | 7,733 | 9,007 | 10,354 | 11,663 | 12,975 |
|  | Avg. Age | 64 | 64 | 63 | 62 | 61 | 61 | 60 | 59 | 59 | 58 |
| PERS 2 | \% | 38.73\% | 39.09\% | 39.47\% | 39.73\% | 40.00\% | 39.92\% | 40.27\% | 40.35\% | 40.81\% | 41.00\% |
|  | Individuals | 119,677 | 117,768 | 116,985 | 115,751 | 115,877 | 117,096 | 119,826 | 121,800 | 123,285 | 120,625 |
|  | Avg. Age | 48 | 48 | 48 | 48 | 48 | 48 | 48 | 47 | 47 | 46 |
| PERS 3 | \% | 10.76\% | 10.49\% | 10.36\% | 10.06\% | 9.69\% | 9.41\% | 9.31\% | 8.97\% | 8.85\% | 8.30\% |
|  | Individuals | 33,240 | 31,602 | 30,694 | 29,302 | 28,078 | 27,588 | 27,693 | 27,081 | 26,720 | 24,422 |
|  | Avg. Age | 43 | 43 | 43 | 44 | 44 | 43 | 43 | 42 | 42 | 42 |
| SERS 2 | \% | 8.40\% | 8.12\% | 7.75\% | 7.47\% | 7.20\% | 7.09\% | 6.84\% | 6.69\% | 6.38\% | 6.04\% |
|  | Individuals | 25,950 | 24,479 | 22,950 | 21,760 | 20,846 | 20,784 | 20,358 | 20,197 | 19,264 | 17,767 |
|  | Avg. Age | 50 | 50 | 51 | 51 | 51 | 51 | 51 | 51 | 51 | 51 |
| SERS 3 | \% | 10.46\% | 10.40\% | 10.40\% | 10.48\% | 10.60\% | 10.76\% | 10.75\% | 10.69\% | 10.76\% | 11.24\% |
|  | Individuals | 32,314 | 31,326 | 30,832 | 30,535 | 30,712 | 31,548 | 31,981 | 32,277 | 32,510 | 33,058 |
|  | Avg. Age | 50 | 50 | 51 | 51 | 50 | 50 | 49 | 49 | 48 | 47 |
| PSERS 2 | \% | 1.77\% | 1.73\% | 1.63\% | 1.55\% | 1.47\% | 1.43\% | 1.42\% | 1.44\% | 1.32\% | 0.94\% |
|  | Individuals | 5,483 | 5,202 | 4,820 | 4,513 | 4,250 | 4,187 | 4,210 | 4,340 | 3,981 | 2,755 |
|  | Avg. Age | 40 | 40 | 40 | 40 | 40 | 40 | 39 | 38 | 37 | 38 |
| TRS 1 | \% | 0.31\% | 0.45\% | 0.62\% | 0.82\% | 1.04\% | 1.27\% | 1.54\% | 1.72\% | 2.01\% | 2.15\% |
|  | Individuals | 967 | 1,353 | 1,824 | 2,393 | 3,019 | 3,740 | 4,591 | 5,204 | 6,061 | 6,331 |
|  | Avg. Age | 65 | 65 | 64 | 63 | 62 | 62 | 61 | 60 | 59 | 58 |
| TRS 2 | \% | 5.58\% | 5.09\% | 4.60\% | 4.14\% | 3.74\% | 3.51\% | 3.17\% | 3.04\% | 2.68\% | 2.30\% |
|  | Individuals | 17,242 | 15,342 | 13,632 | 12,071 | 10,849 | 10,285 | 9,442 | 9,174 | 8,103 | 6,752 |
|  | Avg. Age | 42 | 42 | 43 | 44 | 46 | 46 | 48 | 48 | 49 | 52 |
| TRS 3 | \% | 17.06\% | 17.30\% | 17.50\% | 17.67\% | 17.77\% | 17.79\% | 17.57\% | 17.56\% | 17.33\% | 17.63\% |
|  | Individuals | 52,706 | 52,125 | 51,837 | 51,471 | 51,489 | 52,178 | 52,292 | 53,010 | 52,360 | 51,856 |
|  | Avg. Age | 46 | 46 | 46 | 46 | 46 | 45 | 45 | 44 | 43 | 43 |
| LEOFF 1 | \% | 0.02\% | 0.03\% | 0.04\% | 0.05\% | 0.06\% | 0.08\% | 0.10\% | 0.12\% | 0.14\% | 0.17\% |
|  | Individuals | 62 | 82 | 120 | 143 | 186 | 250 | 301 | 356 | 421 | 513 |
|  | Avg. Age | 65 | 64 | 63 | 62 | 61 | 60 | 60 | 59 | 58 | 57 |
| LEOFF 2 | \% | 5.56\% | 5.65\% | 5.66\% | 5.73\% | 5.77\% | 5.73\% | 5.64\% | 5.62\% | 5.50\% | 5.47\% |
|  | Individuals | 17,186 | 17,019 | 16,773 | 16,687 | 16,720 | 16,805 | 16,775 | 16,951 | 16,626 | 16,099 |
|  | Avg. Age | 44 | 44 | 44 | 44 | 43 | 43 | 42 | 42 | 41 | 41 |
| WSPRS 1 | \% | 0.16\% | 0.19\% | 0.21\% | 0.22\% | 0.25\% | 0.26\% | 0.27\% | 0.28\% | 0.28\% | 0.30\% |
|  | Individuals | 498 | 560 | 609 | 657 | 712 | 767 | 806 | 830 | 851 | 885 |
|  | Avg. Age | 48 | 47 | 46 | 46 | 45 | 45 | 44 | 43 | 42 | 41 |
| WSPRS 2 | \% | 0.15\% | 0.16\% | 0.15\% | 0.14\% | 0.12\% | 0.11\% | 0.09\% | 0.09\% | 0.08\% | 0.05\% |
|  | Individuals | 470 | 475 | 435 | 409 | 354 | 315 | 281 | 264 | 234 | 152 |
|  | Avg. Age | 34 | 33 | 33 | 33 | 32 | 32 | 32 | 31 | 30 | 31 |
| JRS | \% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% |
|  | Individuals | - | - | - | - | 2 | 3 | 5 | 9 | 10 | 11 |
|  | Avg. Age | n/a | n/a | n/a | n/a | 66 | 69 | 69 | 69 | 67 | 66 |
| JRF | \% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% |
|  | Individuals | - | - | - | - | - | - | - | - | - | - |
|  | Avg. Age | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a |
| Totals | \% | 100.00\% | 100.00\% | 100.00\% | 100.00\% | 100.00\% | 100.00\% | 100.00\% | 100.00\% | 100.00\% | 100.00\% |
|  | Individuals | 309,022 | 301,260 | 296,293 | 291,345 | 289,729 | 293,279 | 297,568 | 301,847 | 302,089 | 294,201 |

## Distribution of Membership by System and Plan (cont.)

## Inactive and Retired Members

For the Years Ended June 30, 2008-2016, and September 30, 2007

| Plan |  | 2016 | 2015 | 2014 | 2013 | 2012 | 2011 | 2010 | 2009 | 2008 | 2007 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| PERS 1 | \% | 21.69\% | 23.10\% | 24.57\% | 26.14\% | 27.70\% | 29.18\% | 30.63\% | 31.87\% | 33.11\% | 34.34\% |
|  | Individuals | 50,098 | 51,269 | 52,248 | 53,244 | 54,266 | 55,053 | 55,721 | 56,272 | 56,852 | 57,342 |
|  | Avg. Age | 76 | 75 | 75 | 74 | 74 | 74 | 74 | 73 | 73 | 73 |
| PERS 2 | \% | 30.31\% | 29.52\% | 28.73\% | 27.84\% | 26.93\% | 26.06\% | 25.04\% | 24.14\% | 23.23\% | 22.34\% |
|  | Individuals | 70,021 | 65,523 | 61,105 | 56,712 | 52,773 | 49,167 | 45,556 | 42,614 | 39,890 | 37,302 |
|  | Avg. Age | 64 | 64 | 63 | 63 | 62 | 62 | 61 | 60 | 60 | 59 |
| PERS 3 | \% | 3.86\% | 3.67\% | 3.39\% | 3.15\% | 2.92\% | 2.69\% | 2.46\% | 2.29\% | 2.12\% | 1.91\% |
|  | Individuals | 8,923 | 8,147 | 7,209 | 6,419 | 5,718 | 5,068 | 4,482 | 4,045 | 3,647 | 3,183 |
|  | Avg. Age | 60 | 60 | 59 | 58 | 57 | 56 | 55 | 54 | 53 | 52 |
| SERS 2 | \% | 5.67\% | 5.47\% | 5.25\% | 5.04\% | 4.81\% | 4.61\% | 4.44\% | 4.26\% | 3.99\% | 3.61\% |
|  | Individuals | 13,104 | 12,134 | 11,153 | 10,274 | 9,429 | 8,697 | 8,069 | 7,514 | 6,845 | 6,019 |
|  | Avg. Age | 64 | 64 | 63 | 62 | 62 | 61 | 60 | 58 | 58 | 57 |
| SERS 3 | \% | 6.35\% | 5.97\% | 5.55\% | 5.10\% | 4.67\% | 4.24\% | 3.86\% | 3.57\% | 3.28\% | 2.87\% |
|  | Individuals | 14,659 | 13,241 | 11,788 | 10,393 | 9,142 | 7,993 | 7,015 | 6,308 | 5,628 | 4,796 |
|  | Avg. Age | 63 | 62 | 62 | 61 | 60 | 60 | 59 | 58 | 57 | 56 |
| PSERS 2 | \% | 0.22\% | 0.17\% | 0.13\% | 0.08\% | 0.04\% | 0.01\% | 0.01\% | 0.00\% | 0.00\% | 0.00\% |
|  | Individuals | 501 | 374 | 275 | 162 | 87 | 16 | 7 | 2 | 1 | - |
|  | Avg. Age | 48 | 47 | 46 | 47 | 48 | 59 | 58 | 63 | 66 | n/a |
| TRS 1 | \% | 15.15\% | 16.00\% | 16.92\% | 17.82\% | 18.65\% | 19.45\% | 20.18\% | 20.88\% | 21.45\% | 22.41\% |
|  | Individuals | 35,004 | 35,506 | 35,962 | 36,303 | 36,531 | 36,699 | 36,716 | 36,875 | 36,839 | 37,420 |
|  | Avg. Age | 75 | 75 | 74 | 74 | 73 | 73 | 72 | 72 | 71 | 71 |
| TRS 2 | \% | 3.12\% | 3.03\% | 2.94\% | 2.84\% | 2.76\% | 2.69\% | 2.63\% | 2.59\% | 2.57\% | 2.57\% |
|  | Individuals | 7,219 | 6,733 | 6,251 | 5,775 | 5,408 | 5,080 | 4,787 | 4,576 | 4,418 | 4,288 |
|  | Avg. Age | 66 | 66 | 65 | 65 | 64 | 63 | 62 | 61 | 60 | 59 |
| TRS 3 | \% | 7.60\% | 7.08\% | 6.47\% | 5.88\% | 5.37\% | 4.84\% | 4.41\% | 4.04\% | 3.84\% | 3.48\% |
|  | Individuals | 17,561 | 15,712 | 13,749 | 11,965 | 10,524 | 9,134 | 8,017 | 7,136 | 6,592 | 5,811 |
|  | Avg. Age | 62 | 61 | 61 | 60 | 59 | 58 | 58 | 57 | 56 | 55 |
| LEOFF 1 | \% | 3.19\% | 3.38\% | 3.58\% | 3.80\% | 4.00\% | 4.20\% | 4.40\% | 4.58\% | 4.74\% | 4.89\% |
|  | Individuals | 7,379 | 7,507 | 7,607 | 7,730 | 7,845 | 7,933 | 8,009 | 8,089 | 8,135 | 8,165 |
|  | Avg. Age | 74 | 73 | 72 | 72 | 71 | 70 | 70 | 69 | 68 | 68 |
| LEOFF 2 | \% | 2.26\% | 2.02\% | 1.87\% | 1.71\% | 1.55\% | 1.42\% | 1.33\% | 1.16\% | 1.04\% | 0.93\% |
|  | Individuals | 5,212 | 4,495 | 3,984 | 3,480 | 3,033 | 2,670 | 2,420 | 2,039 | 1,783 | 1,553 |
|  | Avg. Age | 59 | 59 | 58 | 58 | 57 | 56 | 55 | 54 | 54 | 53 |
| WSPRS 1 | \% | 0.52\% | 0.52\% | 0.53\% | 0.53\% | 0.53\% | 0.53\% | 0.53\% | 0.54\% | 0.55\% | 0.56\% |
|  | Individuals | 1,200 | 1,156 | 1,120 | 1,083 | 1,035 | 992 | 970 | 956 | 947 | 933 |
|  | Avg. Age | 66 | 66 | 66 | 66 | 66 | 65 | 65 | 65 | 64 | 64 |
| WSPRS 2 | \% | 0.01\% | 0.01\% | 0.01\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% |
|  | Individuals | 28 | 20 | 15 | 10 | 8 | 6 | 6 | 4 | 2 | 1 |
|  | Avg. Age | 38 | 38 | 38 | 36 | 36 | 37 | 35 | 33 | 32 | 29 |
| JRS | \% | 0.05\% | 0.05\% | 0.05\% | 0.06\% | 0.06\% | 0.07\% | 0.07\% | 0.07\% | 0.07\% | 0.08\% |
|  | Individuals | 104 | 106 | 108 | 114 | 119 | 124 | 125 | 124 | 128 | 131 |
|  | Avg. Age | 82 | 81 | 80 | 80 | 80 | 80 | 79 | 79 | 79 | 78 |
| JRF | \% | 0.00\% | 0.01\% | 0.01\% | 0.01\% | 0.01\% | 0.01\% | 0.01\% | 0.01\% | 0.01\% | 0.01\% |
|  | Individuals | 11 | 12 | 12 | 12 | 12 | 13 | 13 | 13 | 13 | 15 |
|  | Avg. Age | 87 | 85 | 84 | 83 | 83 | 83 | 82 | 81 | 80 | 79 |
| Totals | \% | 100.00\% | 100.00\% | 100.00\% | 100.00\% | 100.00\% | 100.00\% | 100.00\% | 100.00\% | 100.00\% | 100.00\% |
|  | Individuals | 231,024 | 221,935 | 212,586 | 203,676 | 195,930 | 188,645 |  | 176,567 |  |  |

Source: Office of the State Actuary
Figures are as of the latest valuation date for each year.

## Principal Participating Employers by Plan

## PERS Plan 1

Current Year and Nine Years Prior

| For Fiscal Year Ended June 30, 2017 |  |  |  | 2008 (Calendar Year Statistics) |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Employer | Covered Employees | Rank | $\begin{array}{r} \text { \% of } \\ \text { Total Plan } \end{array}$ | Employer | Covered Employees | Rank | $\begin{array}{r} \text { \% of } \\ \text { Total Plan } \end{array}$ |
| State of Washington ${ }^{1}$ | 1,146 | 1 | 43.5\% | State of Washington | 5,920 | 1 | 49.5\% |
| King County | 158 | 2 | 6.0\% | King County | 343 | 2 | 2.9\% |
| Seattle SD 001 | 72 | 3 | 2.7\% | KC Metro | 315 | 3 | 2.6\% |
| Pierce County | 31 | 4 | 1.2\% | Seattle SD 001 | 185 | 4 | 1.5\% |
| Snohomish County | 31 | 5 | 1.2\% | Pierce County | 139 | 5 | 1.2\% |
| City of Everett | 19 | 6 | 0.7\% | Snohomish County | 127 | 6 | 1.1\% |
| Tacoma SD 010 | 17 | 7 | 0.6\% | Thurston County | 85 | 7 | 0.7\% |
| Spokane SD 081 | 16 | 8 | 0.6\% | Spokane County | 84 | 8 | 0.7\% |
| Spokane County | 15 | 9 | 0.6\% | Yakima County | 76 | 9 | 0.6\% |
| Kent SD 415 | 15 | 10 | 0.6\% | Spokane SD 081 | 74 | 10 | 0.6\% |
| All Other Employers ${ }^{2}$ | 1,116 |  | 42.3\% | All Other Employers | 4,627 |  | 38.6\% |
| Total (393 Employers) | 2,636 |  | 100.0\% | Total (618 Employers) | 11,975 |  | 100.0\% |
| All Other Employers | Number | Employees | ${ }^{1}$ Includes 110 component units of the state |  |  |  |  |
| State of Washington | - | - | ${ }^{2}$ In 2017, "all other employers" consisted of the employers at left. |  |  |  |  |
| School Districts | 168 | 606 |  |  |  |  |  |
| Counties/Municipalities | 110 | 306 |  |  |  |  |  |
| Other Political Subdivisions | 105 | 204 |  |  |  |  |  |
| Total | 383 | 1,116 |  |  |  |  |  |

## PERS Plan 2

Current Year and Nine Years Prior

| For Fiscal Year Ended June 30, 2017 |  |  |  | 2008 (Calendar Year Statistics) |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Employer | Covered Employees | Rank | \% of Total Plan | Employer | Covered Employees | Rank | $\begin{array}{r} \text { \% of } \\ \text { Total Plan } \end{array}$ |
| State of Washington ${ }^{1}$ | 64,349 | 1 | 51.8\% | State of Washington | 69,417 | 1 | 53.0\% |
| King County | 10,398 | 2 | 8.4\% | King County | 4,713 | 2 | 3.6\% |
| Pierce County | 1,937 | 3 | 1.6\% | KC Metro | 4,569 | 3 | 3.5\% |
| Snohomish County | 1,851 | 4 | 1.5\% | Pierce County | 2,580 | 4 | 2.0\% |
| Spokane County | 1,288 | 5 | 1.0\% | Snohomish County | 2,366 | 5 | 1.8\% |
| Clark County | 1,139 | 6 | 0.9\% | Spokane County | 1,521 | 6 | 1.2\% |
| Port of Seattle | 1,009 | 7 | 0.8\% | Clark County | 1,385 | 7 | 1.1\% |
| Snohomish County PUD 01 | 913 | 8 | 0.7\% | King County Public Health Dept. | 1,148 | 8 | 0.9\% |
| Pierce County PTBA | 841 | 9 | 0.7\% | City of Bellevue | 933 | 9 | 0.7\% |
| City of Bellevue | 836 | 10 | 0.7\% | Pierce County PTBA | 912 | 10 | 0.7\% |
| All Other Employers ${ }^{2}$ | 39,563 |  | 31.9\% | All Other Employers | 41,347 |  | 31.5\% |
| Total (808 Employers) | 124,124 |  | 100.0\% | Total (743 Employers) | 130,891 |  | 100.0\% |


| All Other Employers | Number | Employees | Includes 155 component units of the state |
| :---: | :---: | :---: | :---: |
| State of Washington | - | - | ${ }^{2}$ In 2017, "all other employers" consisted of the employers at left. |
| School Districts | - | - |  |
| Counties/Municipalities | 274 | 21,306 |  |
| Other Political Subdivisions | 524 | 18,257 |  |
| Total | 798 | 39,563 |  |

192 DRS $\nabla$ Statistical Section - Comprehensive Annual Financial Report

## Principal Participating Employers by Plan (cont.)

## PERS Plan 3

Current Year and Nine Years Prior

| For Fiscal Year Ended June 30, 2017 |  |  |  | 2008 (Calendar Year Statistics) |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Employer | Covered Employees | Rank | \% of Total Plan | Employer | Covered Employees | Rank | $\begin{array}{r} \text { \% of } \\ \text { Total Plan } \end{array}$ |
| State of Washington ${ }^{1}$ | 22,093 | 1 | 63.8\% | State of Washington | 18,251 | 1 | 62.9\% |
| King County | 2,087 | 2 | 6.0\% | King County | 810 | 2 | 2.8\% |
| Tacoma Metropolitan Park District | 433 | 3 | 1.3\% | KC Metro | 653 | 3 | 2.2\% |
| Pierce County | 426 | 4 | 1.2\% | Pierce County | 504 | 4 | 1.7\% |
| Snohomish County | 372 | 5 | 1.1\% | Snohomish County | 407 | 5 | 1.4\% |
| Energy Northwest | 323 | 6 | 0.9\% | Energy Northwest | 365 | 6 | 1.2\% |
| Spokane County | 259 | 7 | 0.7\% | King County Public Health Dept. | 281 | 7 | 1.0\% |
| Clark County | 226 | 8 | 0.7\% | Spokane County | 251 | 8 | 0.9\% |
| Port of Seattle | 221 | 9 | 0.6\% | Clark County | 239 | 9 | 0.8\% |
| Yakima County | 191 | 10 | 0.6\% | Yakima County | 225 | 10 | 0.8\% |
| All Other Employers² | 7,989 |  | 23.1\% | All Other Employers | 7,046 |  | 24.3\% |
| Total (560 Employers) | 34,620 |  | 100.0\% | Total (463 Employers) | 29,032 |  | 100.0\% |
| All Other Employers | Number | Employees | ${ }^{1}$ Includes 148 component units of the state |  |  |  |  |
| State of Washington | - | - | ${ }^{2}$ In 2017, "all other employers" consisted of the employers at left. |  |  |  |  |
| School Districts | - | - |  |  |  |  |  |
| Counties/Municipalities | 211 | 4,408 |  |  |  |  |  |
| Other Political Subdivisions | 339 | 3,581 |  |  |  |  |  |
| Total | 550 | 7,989 |  |  |  |  |  |

## SERS Plan 2

Current Year and Nine Years Prior

| For Fiscal Year Ended June 30, 2017 |  |  |  | 2008 (Calendar Year Statistics) |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Employer | Covered Employees | Rank | \% of Total Plan | Employer | Covered Employees | Rank | $\begin{array}{r} \text { \% of } \\ \text { Total Plan } \end{array}$ |
| Seattle SD 001 | 1,298 | 1 | 4.5\% | Seattle SD 001 | 941 | 1 | 4.6\% |
| Tacoma SD 010 | 691 | 2 | 2.4\% | Tacoma SD 010 | 726 | 2 | 3.5\% |
| Highline SD 401 | 664 | 3 | 2.3\% | Spokane SD 081 | 506 | 3 | 2.4\% |
| Spokane SD 081 | 577 | 4 | 2.0\% | Vancouver SD 037 | 485 | 4 | 2.3\% |
| Vancouver SD 037 | 560 | 5 | 1.9\% | Kent SD 415 | 470 | 5 | 2.3\% |
| Evergreen SD 114 | 550 | 6 | 1.9\% | Highline SD 401 | 449 | 6 | 2.2\% |
| Kent SD 415 | 544 | 7 | 1.9\% | Evergreen SD 114 | 403 | 7 | 1.9\% |
| Bellevue SD 405 | 531 | 8 | 1.8\% | Federal Way SD 210 | 389 | 8 | 1.9\% |
| Puyallup SD 003 | 506 | 9 | 1.8\% | Edmonds SD 015 | 369 | 9 | 1.8\% |
| Federal Way SD 210 | 454 | 10 | 1.6\% | Lake Washington SD 414 | 369 | 10 | 1.8\% |
| All Other Employers ${ }^{1}$ | 22,423 |  | 77.9\% | All Other Employers | 15,583 |  | 75.3\% |
| Total (309 Employers) | 28,798 |  | 100.0\% | Total (301 Employers) | 20,690 |  | 100.0\% |


| All Other Employers | Number | Employees |
| :--- | ---: | ---: |
| State of Washington | - | - |
| School Districts | 299 | 22,423 |
| Counties/Municipalities | - | - |
| Other Political Subdivisions | - | - |
| Total | $\mathbf{2 9 9}$ | $\mathbf{2 2 , 4 2 3}$ |

## Principal Participating Employers by Plan (cont.)

## SERS Plan 3

Current Year and Nine Years Prior

| For Fiscal Year Ended June 30, 2017 |  |  |  | 2008 (Calendar Year Statistics) |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Employer | Covered Employees | Rank | $\begin{array}{r} \text { \% of } \\ \text { Total Plan } \end{array}$ | Employer | Covered Employees | Rank | \% of Total Plan |
| Seattle SD 001 | 1,334 | 1 | 3.8\% | Seattle SD 001 | 1,062 | 1 | 3.1\% |
| Kent SD 415 | 1,028 | 2 | 2.9\% | Kent SD 415 | 1,020 | 2 | 2.9\% |
| Spokane SD 081 | 877 | 3 | 2.5\% | Evergreen SD 114 | 901 | 3 | 2.6\% |
| Tacoma SD 010 | 875 | 4 | 2.5\% | Spokane SD 081 | 874 | 4 | 2.5\% |
| Evergreen SD 114 | 834 | 5 | 2.4\% | Tacoma SD 010 | 758 | 5 | 2.2\% |
| Lake Washington SD 414 | 811 | 6 | 2.3\% | Vancouver SD 037 | 747 | 6 | 2.2\% |
| Vancouver SD 037 | 762 | 7 | 2.2\% | Federal Way SD 210 | 697 | 7 | 2.0\% |
| Edmonds SD 015 | 725 | 8 | 2.0\% | Lake Washington SD 414 | 694 | 8 | 2.0\% |
| Highline SD 401 | 703 | 9 | 2.0\% | Edmonds SD 015 | 677 | 9 | 2.0\% |
| Kennewick SD 017 | 697 | 10 | 1.9\% | Bethel SD 403 | 674 | 10 | 1.9\% |
| All Other Employers ${ }^{1}$ | 26,720 |  | 75.5\% | All Other Employers | 26,514 |  | 76.6\% |
| Total (307 Employers) | 35,366 |  | 100.0\% | Total (303 Employers) | 34,618 |  | 100.0\% |
| All Other Employers | Number | Employees | ${ }^{1}$ In 2017, "all other employers" consisted of the employers at left. |  |  |  |  |
| State of Washington | - | - |  |  |  |  |  |
| School Districts | 297 | 26,720 |  |  |  |  |  |
| Counties/Municipalities | - | - |  |  |  |  |  |
| Other Political Subdivisions | - | - |  |  |  |  |  |
| Total | 297 | 26,720 |  |  |  |  |  |

## PSERS Plan 2

Current Year and Nine Years Prior

| For Fiscal Year Ended June 30, 2017 |  |  |  | 2008 (Calendar Year Statistics) |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Employer | Covered Employees | Rank | \% of Total Plan | Employer | Covered Employees | Rank | $\begin{array}{r} \text { \% of } \\ \text { Total Plan } \end{array}$ |
| State of Washington ${ }^{1}$ | 3,292 | 1 | 56.1\% | State of Washington | 1,881 | 1 | 52.5\% |
| King County | 404 | 2 | 6.9\% | King County | 295 | 2 | 8.3\% |
| Pierce County | 241 | 3 | 4.1\% | Pierce County | 173 | 3 | 4.8\% |
| Snohomish County | 206 | 4 | 3.5\% | Snohomish County | 140 | 4 | 3.9\% |
| Spokane County | 192 | 5 | 3.3\% | Spokane County | 112 | 5 | 3.1\% |
| Thurston County | 137 | 6 | 2.3\% | Yakima County | 109 | 6 | 3.0\% |
| South Correctional Entity | 129 | 7 | 2.2\% | Thurston County | 97 | 7 | 2.7\% |
| Benton County | 106 | 8 | 1.8\% | Benton County | 77 | 8 | 2.2\% |
| Yakima County | 105 | 9 | 1.8\% | Kitsap County | 75 | 9 | 2.1\% |
| Clark County | 99 | 10 | 1.7\% | Cowlitz County | 67 | 10 | 1.9\% |
| All Other Employers ${ }^{2}$ | 959 |  | 16.3\% | All Other Employers | 555 |  | 15.5\% |
| Total (68 Employers) | 5,870 |  | 100.0\% | Total (64 Employers) | 3,581 |  | 100.0\% |


| All Other Employers | Number | Employees |
| :--- | ---: | ---: |
| State of Washington | - | - |
| School Districts | - | - |
| Counties/Municipalities | 58 | 959 |
| Other Political Subdivisions | - | - |
| Total | $\mathbf{5 8}$ | $\mathbf{9 5 9}$ |

${ }^{1}$ Includes six component units of the state
${ }^{2}$ In 2017, "all other employers" consisted of the employers at left.

194 DRS $\nabla$ Statistical Section - Comprehensive Annual Financial Report

## Principal Participating Employers by Plan (cont.)

## TRS Plan 1

Current Year and Nine Years Prior

| For Fiscal Year Ended June 30, 2017 |  |  |  | 2008 (Calendar Year Statistics) |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Employer | Covered Employees | Rank | \% of Total Plan | Employer | Covered Employees | Rank | \% of Total Plan |
| Seattle SD 001 | 44 | 1 | 6.2\% | Seattle SD 001 | 360 | 1 | 5.6\% |
| State of Washington ${ }^{1}$ | 42 | 2 | 5.9\% | State of Washington | 359 | 2 | 5.6\% |
| Tacoma SD 010 | 24 | 3 | 3.3\% | Tacoma SD 010 | 241 | 3 | 3.8\% |
| Lake Washington SD 414 | 19 | 4 | 2.6\% | Spokane SD 081 | 175 | 4 | 2.8\% |
| Spokane SD 081 | 18 | 5 | 2.5\% | Northshore SD 417 | 163 | 5 | 2.6\% |
| Bellevue SD 405 | 15 | 6 | 2.1\% | Lake Washington SD 414 | 158 | 6 | 2.5\% |
| Highline SD 401 | 15 | 7 | 2.1\% | Evergreen SD 114 | 128 | 7 | 2.0\% |
| Evergreen SD 114 | 14 | 8 | 2.0\% | Kent SD 415 | 123 | 8 | 1.9\% |
| Northshore SD 417 | 14 | 9 | 2.0\% | Vancouver SD 037 | 119 | 9 | 1.9\% |
| Central Valley SD 356 | 13 | 10 | 1.8\% | Puyallup SD 003 | 106 | 10 | 1.7\% |
| All Other Employers ${ }^{2}$ | 497 |  | 69.5\% | All Other Employers | 4,416 |  | 69.6\% |
| Total (163 Employers) | 715 |  | 100.0\% | Total (281 Employers) | 6,348 |  | 100.0\% |
| All Other Employers | Number | Employees | ${ }^{1}$ Includes 26 component units of the state |  |  |  |  |
| State of Washington | - | - | ${ }^{2}$ In 2017, "all other employers" consisted of the employers at left. |  |  |  |  |
| School Districts | 153 | 497 |  |  |  |  |  |
| Counties/Municipalities | - | - |  |  |  |  |  |
| Other Political Subdivisions | - | - |  |  |  |  |  |
| Total | 153 | 497 |  |  |  |  |  |

## TRS Plan 2

Current Year and Nine Years Prior

| For Fiscal Year Ended June 30, 2017 |  |  |  | 2008 (Calendar Year Statistics) |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Employer | Covered Employees | Rank | \% of Total Plan | Employer | Covered Employees | Rank | $\begin{array}{r} \text { \% of } \\ \text { Total Plan } \end{array}$ |
| Seattle SD 001 | 1,441 | 1 | 7.1\% | Seattle SD 001 | 581 | 1 | 5.9\% |
| Tacoma SD 010 | 586 | 2 | 2.8\% | Tacoma SD 010 | 424 | 2 | 4.3\% |
| Lake Washington SD 414 | 558 | 3 | 2.7\% | Spokane SD 081 | 311 | 3 | 3.1\% |
| Spokane SD 081 | 516 | 4 | 2.5\% | Kent SD 415 | 247 | 4 | 2.5\% |
| Evergreen SD 114 | 491 | 5 | 2.4\% | Evergreen SD 114 | 243 | 5 | 2.4\% |
| Vancouver SD 037 | 489 | 6 | 2.4\% | Vancouver SD 037 | 224 | 6 | 2.3\% |
| Highline SD 401 | 488 | 7 | 2.4\% | Issaquah SD 411 | 216 | 7 | 2.2\% |
| Kent SD 415 | 487 | 8 | 2.4\% | Lake Washington SD 414 | 215 | 8 | 2.2\% |
| Federal Way SD 210 | 442 | 9 | 2.2\% | Bethel SD 403 | 196 | 9 | 2.0\% |
| Bellevue SD 405 | 426 | 10 | 2.1\% | Bellevue SD 405 | 175 | 10 | 1.8\% |
| All Other Employers ${ }^{1}$ | 14,481 |  | 71.0\% | All Other Employers | 7,048 |  | 71.3\% |
| Total (307 Employers) | 20,405 |  | 100.0\% | Total (281 Employers) | 9,880 |  | 100.0\% |


| All Other Employers | Number | Employees |
| :--- | ---: | ---: |
| State of Washington ${ }^{2}$ | 1 | 83 |
| School Districts | 296 | 14,398 |
| Counties/Municipalities | - | - |
| Other Political Subdivisions | - | - |
| Total | $\mathbf{2 9 7}$ | $\mathbf{1 4 , 4 8 1}$ |

${ }^{1}$ In 2017, "all other employers" consisted of the employers at left.
${ }^{2}$ Includes 26 component units of the state

## Principal Participating Employers by Plan (cont.)

## TRS Plan 3

Current Year and Nine Years Prior

| For Fiscal Year Ended June 30, 2017 |  |  |  | 2008 (Calendar Year Statistics) |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Employer | Covered Employees | Rank | $\begin{array}{r} \text { \% of } \\ \text { Total Plan } \end{array}$ | Employer | Covered Employees | Rank | \% of Total Plan |
| Seattle SD 001 | 2,728 | 1 | 4.8\% | Seattle SD 001 | 2,539 | 1 | 4.6\% |
| Spokane SD 081 | 1,889 | 2 | 3.3\% | Spokane SD 081 | 1,745 | 2 | 3.1\% |
| Tacoma SD 010 | 1,661 | 3 | 2.9\% | Tacoma SD 010 | 1,539 | 3 | 2.8\% |
| Lake Washington SD 414 | 1,558 | 4 | 2.7\% | Kent SD 415 | 1,527 | 4 | 2.8\% |
| Kent SD 415 | 1,534 | 5 | 2.7\% | Evergreen SD 114 | 1,521 | 5 | 2.8\% |
| Evergreen SD 114 | 1,410 | 6 | 2.5\% | Lake Washington SD 414 | 1,300 | 6 | 2.4\% |
| Vancouver SD 037 | 1,243 | 7 | 2.2\% | Federal Way SD 210 | 1,268 | 7 | 2.3\% |
| Federal Way SD 210 | 1,224 | 8 | 2.1\% | Vancouver SD 037 | 1,183 | 8 | 2.1\% |
| Edmonds SD 015 | 1,127 | 9 | 2.0\% | Edmonds SD 015 | 1,119 | 9 | 2.0\% |
| Puyallup SD 003 | 1,119 | 10 | 2.0\% | Puyallup SD 003 | 1,111 | 10 | 2.0\% |
| All Other Employers ${ }^{1}$ | 41,620 |  | 72.8\% | All Other Employers | 40,393 |  | 73.1\% |
| Total (313 Employers) | 57,113 |  | 100.0\% | Total (302 Employers) | 55,245 |  | 100.0\% |
| All Other Employers | Number | Employees | ${ }^{1}$ In 2017, "all other employers" consisted of the employers at left. |  |  |  |  |
| State of Washington² | 1 | 794 | ${ }^{2}$ Includes 40 component units of the state |  |  |  |  |
| School Districts | 302 | 40,826 |  |  |  |  |  |
| Counties/Municipalities | - | - |  |  |  |  |  |
| Other Political Subdivisions | - | - |  |  |  |  |  |
| Total | 303 | 41,620 |  |  |  |  |  |

## LEOFF Plan 1

Current Year and Nine Years Prior

| For Fiscal Year Ended June 30, 2017 |  |  |  | 2008 (Calendar Year Statistics) |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Employer | Covered Employees | Rank | $\begin{array}{r} \text { \% of } \\ \text { Total Plan } \end{array}$ | Employer | Covered Employees | Rank | $\begin{array}{r} \text { \% of } \\ \text { Total Plan } \end{array}$ |
| City of Seattle | 17 | 1 | 40.5\% | City of Seattle | 113 | 1 | 24.6\% |
| City of Bellevue | 2 | 2 | 4.7\% | City of Spokane | 32 | 2 | 6.9\% |
| King County | 2 | 3 | 4.7\% | City of Tacoma | 28 | 3 | 6.1\% |
| City of Spokane | 2 | 4 | 4.7\% | City of Bellevue | 22 | 4 | 4.8\% |
| City of Aberdeen | 1 | 5 | 2.4\% | City of Everett | 17 | 5 | 3.7\% |
| City of Anacortes | 1 | 6 | 2.4\% | City of Bellingham | 16 | 6 | 3.5\% |
| City of Bellingham | 1 | 7 | 2.4\% | Pierce County FPD 02 | 12 | 7 | 2.6\% |
| City of Blaine | 1 | 8 | 2.4\% | King County | 11 | 8 | 2.4\% |
| City of Bremerton | 1 | 9 | 2.4\% | City of Renton | 10 | 9 | 2.2\% |
| Clark County | 1 | 10 | 2.4\% | Adams County | 1 | 10 | 0.2\% |
| All Other Employers ${ }^{1}$ | 13 |  | 31.0\% | All Other Employers | 198 |  | 43.0\% |
| Total (23 Employers) | 42 |  | 100.0\% | Total (90 Employers) | 460 |  | 100.0\% |


| All Other Employers | Number | Employees | 'In 2017, "all other employers" consisted of the employers at left. |
| :---: | :---: | :---: | :---: |
| State of Washington | - | - |  |
| School Districts | - | - |  |
| Counties/Municipalities | 8 | 8 |  |
| Other Political Subdivisions | 5 | 5 |  |
| Total | 13 | 13 |  |

196 DRS $\nabla$ Statistical Section - Comprehensive Annual Financial Report

## Principal Participating Employers by Plan (cont.)

## LEOFF Plan 2

Current Year and Nine Years Prior

| For Fiscal Year Ended June 30, 2017 |  |  |  | 2008 (Calendar Year Statistics) |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Employer | Covered Employees | Rank | $\begin{array}{r} \text { \% of } \\ \text { Total Plan } \end{array}$ | Employer | Covered Employees | Rank | $\begin{array}{r} \text { \% of } \\ \text { Total Plan } \end{array}$ |
| City of Seattle | 2,386 | 1 | 13.4\% | City of Seattle | 2,173 | 1 | 13.1\% |
| King County | 777 | 2 | 4.3\% | City of Tacoma | 755 | 2 | 4.6\% |
| City of Tacoma | 704 | 3 | 3.9\% | King County | 748 | 3 | 4.5\% |
| City of Spokane | 637 | 4 | 3.6\% | City of Spokane | 535 | 4 | 3.2\% |
| City of Vancouver | 387 | 5 | 2.2\% | City of Vancouver | 375 | 5 | 2.3\% |
| City of Bellevue | 382 | 6 | 2.1\% | City of Bellevue | 367 | 6 | 2.2\% |
| City of Everett | 354 | 7 | 2.0\% | City of Everett | 354 | 7 | 2.1\% |
| Pierce County | 320 | 8 | 1.8\% | Pierce County | 322 | 8 | 1.9\% |
| Snohomish County | 273 | 9 | 1.5\% | City of Kent | 285 | 9 | 1.7\% |
| City of Bellingham | 266 | 10 | 1.5\% | Snohomish County | 272 | 10 | 1.6\% |
| All Other Employers ${ }^{1}$ | 11,359 |  | 63.7\% | All Other Employers | 10,425 |  | 62.8\% |
| Total (370 Employers) | 17,845 |  | 100.0\% | Total (371 Employers) | 16,611 |  | 100.0\% |
| All Other Employers | Number | Employees | ${ }^{1}$ In 2017, "all other employers" consisted of the employers at left. <br> ${ }^{2}$ Includes nine component units of the state |  |  |  |  |
| State of Washington ${ }^{2}$ | 1 | 258 |  |  |  |  |  |
| School Districts | - | - |  |  |  |  |  |
| Counties/Municipalities | 193 | 6,640 |  |  |  |  |  |
| Other Political Subdivisions | 166 | 4,461 |  |  |  |  |  |
| Total | 360 | 11,359 |  |  |  |  |  |

Number of Participating Employers

| PERS Plan l |  |  |  |  |  |
| ---: | ---: | ---: | ---: | ---: | ---: |
| Fiscal Year Ended | Component Units <br> of WA State | Counties/ <br> Municipalities | Other Political <br> School Districts <br> Subdivisions | Total |  |
| $6 / 30 / 2017$ | 110 | 115 | 172 | 105 | 502 |
| $6 / 30 / 2016$ | 115 | 123 | 191 | 120 | 549 |
| $6 / 30 / 2015$ | 123 | 132 | 200 | 140 | 595 |
| $6 / 30 / 2014$ | 128 | 147 | 212 | 147 | 634 |
| $6 / 30 / 2013$ | 135 | 172 | 216 | 183 | 706 |
| $6 / 30 / 2012$ | 149 | 220 | 155 | 174 | 678 |
| $6 / 30 / 2011$ | 146 | 227 | 158 | 180 | 709 |
| $6 / 30 / 2010$ | 117 | 229 | 172 | 193 | 734 |
| $6 / 30 / 2009$ | 147 | 239 | 173 | 198 | 720 |
| $6 / 30 / 2008$ |  |  | 202 | 761 |  |


| PERS Plan 2 |  |  |  |  |  |
| ---: | ---: | ---: | ---: | ---: | ---: |
| Fiscal Year Ended | Component Units <br> of WA State | Counties/ <br> Municipalities | Other Political <br> School Districts <br> Subdivisions | Total |  |
| $6 / 30 / 2017$ | 155 | 280 | - | 527 | 962 |
| $6 / 30 / 2016$ | 153 | 278 | - | 515 | 946 |
| $6 / 30 / 2015$ | 157 | 276 | - | 510 | 943 |
| $6 / 30 / 2014$ | 169 | 275 | - | 490 | 934 |
| $6 / 30 / 2013$ | 167 | 169 | 276 | - | 491 |


| PERS Plan 3 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Fiscal Year Ended | Component Units of WA State | Counties/ Municipalities | School Districts | Other Political Subdivisions | Total |
| 6/30/2017 | 148 | 217 | - | 342 | 707 |
| 6/30/2016 | 145 | 212 | - | 330 | 687 |
| 6/30/2015 | 149 | 211 | - | 323 | 683 |
| 6/30/2014 | 158 | 209 | - | 306 | 673 |
| 6/30/2013 | 157 | 209 | - | 298 | 664 |
| 6/30/2012 | 157 | 206 | - | 300 | 663 |
| 6/30/2011 | 166 | 205 | - | 302 | 673 |
| 6/30/2010 | 163 | 209 | - | 287 | 659 |
| 6/30/2009 | 164 | 203 | - | 281 | 648 |
| 6/30/2008 | 162 | 199 | - | 265 | 626 |

## Number of Participating Employers (cont.)

| SERS Plan 2 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Fiscal Year Ended | Component Units of WA State | Counties/ Municipalities | School Districts | Other Political Subdivisions | Total |
| 6/30/2017 | - | - | 309 | - | 309 |
| 6/30/2016 | - | - | 307 | - | 307 |
| 6/30/2015 | - | - | 302 | - | 302 |
| 6/30/2014 | - | - | 303 | - | 303 |
| 6/30/2013 | - | - | 302 | - | 302 |
| 6/30/2012 | - | - | 299 | - | 299 |
| 6/30/2011 | - | - | 299 | - | 299 |
| 6/30/2010 | - | - | 298 | - | 298 |
| 6/30/2009 | - | - | 298 | - | 298 |
| 6/30/2008 | - | - | 299 | - | 299 |


| SERS Plan 3 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Fiscal Year Ended | Component Units of WA State | Counties/ Municipalities | School Districts | Other Political Subdivisions | Total |
| 6/30/2017 | - | - | 307 | - | 307 |
| 6/30/2016 | - | - | 306 | - | 306 |
| 6/30/2015 | - | - | 300 | - | 300 |
| 6/30/2014 | - | - | 300 | - | 300 |
| 6/30/2013 | - | - | 301 | - | 301 |
| 6/30/2012 | - | - | 301 | - | 301 |
| 6/30/2011 | - | - | 300 | - | 300 |
| 6/30/2010 | 1 | - | 300 | - | 301 |
| 6/30/2009 | 1 | - | 301 | - | 302 |
| 6/30/2008 | 1 | - | 303 | - | 304 |


| PSERS Plan 2 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Fiscal Year Ended | Component Units of WA State | Counties/ Municipalities | School Districts | Other Political Subdivisions | Total |
| 6/30/2017 | 6 | 66 | - | 1 | 73 |
| 6/30/2016 | 6 | 64 | - | 1 | 71 |
| 6/30/2015 | 9 | 65 | - | 1 | 75 |
| 6/30/2014 | 9 | 65 | - | 1 | 75 |
| 6/30/2013 | 9 | 65 | - | 1 | 75 |
| 6/30/2012 | 10 | 65 | - | 1 | 76 |
| 6/30/2011 | 11 | 65 | - | 1 | 77 |
| 6/30/2010 | 10 | 63 | - | - | 73 |
| 6/30/2009 | 10 | 63 | - | - | 73 |
| 6/30/2008 | 9 | 62 | - | - | 71 |

Number of Participating Employers (cont.)

| TRS Plan 1 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Fiscal Year Ended | Component Units of WA State | Counties/ Municipalities | School Districts | Other Political Subdivisions | Total |
| 6/30/2017 | 26 | - | 162 | - | 188 |
| 6/30/2016 | 31 | - | 189 | - | 220 |
| 6/30/2015 | 34 | - | 217 | - | 251 |
| 6/30/2014 | 36 | - | 228 | - | 264 |
| 6/30/2013 | 49 | - | 295 | - | 344 |
| 6/30/2012 | 47 | - | 257 | - | 304 |
| 6/30/2011 | 49 | - | 263 | - | 312 |
| 6/30/2010 | 54 | - | 271 | - | 325 |
| 6/30/2009 | 62 | - | 274 | - | 336 |
| 6/30/2008 | 63 | - | 276 | - | 339 |


| TRS Plan 2 |  |  |  |  |  |
| ---: | ---: | ---: | ---: | ---: | ---: |
| Fiscal Year Ended | Component Units <br> of WA State | Counties/ <br> Municipalities | School Districts | Subdivitical <br> Subsions | Total |
| $6 / 30 / 2017$ | 26 | - | 306 | - | 332 |
| $6 / 30 / 2016$ | 28 | - | 305 | - | 333 |
| $6 / 30 / 2015$ | 26 | - | 295 | - | 321 |
| $6 / 30 / 2014$ | 22 | - | 295 | - | 317 |
| $6 / 30 / 2013$ | 36 | - | 304 | - | 340 |
| $6 / 30 / 2012$ | 24 | - | 295 | - | 319 |
| $6 / 30 / 2011$ | 25 | - | 288 | - | 313 |
| $6 / 30 / 2010$ | 23 | - | 283 | - | 306 |
| $6 / 30 / 2009$ | 21 | - | 282 | - | 303 |
| $6 / 30 / 2008$ | 22 | - | 277 | - | 299 |


| TRS Plan 3 | Component Units <br> of WA State | Counties/ <br> Municipalities | School Districts | Other Political <br> Subdivisions | Total |
| ---: | ---: | ---: | ---: | ---: | ---: |
| Fiscal Year Ended | 40 | - | 312 | - | 352 |
| $6 / 30 / 2017$ | 40 | - | 310 | - | 350 |
| $6 / 30 / 2016$ | 41 | - | 303 | - | 344 |
| $6 / 30 / 2015$ | 39 | - | 302 | - | 341 |
| $6 / 30 / 2014$ | 38 | - | 303 | - | 341 |
| $6 / 30 / 2013$ | 35 | - | 302 | - | 337 |
| $6 / 30 / 2012$ | 28 | - | 302 | - | 330 |
| $6 / 30 / 2011$ | 31 | - | 302 | - | 333 |
| $6 / 30 / 2010$ | 31 | - | 303 | - | 334 |
| $6 / 30 / 2009$ | 30 | - | 302 | - | 332 |
| $6 / 30 / 2008$ |  |  |  | - | - |

## Number of Participating Employers (cont.)

| LEOFF Plan 1 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Fiscal Year Ended | Component Units of WA State | Counties/ Municipalities | School Districts | Other Political Subdivisions | Total |
| 6/30/2017 | - | 18 | - | 5 | 23 |
| 6/30/2016 | - | 23 | - | 6 | 29 |
| 6/30/2015 | - | 27 | - | 6 | 33 |
| 6/30/2014 | - | 36 | - | 9 | 45 |
| 6/30/2013 | - | 41 | - | 10 | 51 |
| 6/30/2012 | - | 42 | - | 12 | 54 |
| 6/30/2011 | - | 48 | - | 14 | 62 |
| 6/30/2010 | - | 54 | - | 15 | 69 |
| 6/30/2009 | - | 60 | - | 16 | 76 |
| 6/30/2008 | - | 71 | - | 16 | 87 |


| LEOFF Plan 2 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Fiscal Year Ended | Component Units of WA State | Counties/ Municipalities | School Districts | Other Political Subdivisions | Total |
| 6/30/2017 | 9 | 203 | - | 166 | 378 |
| 6/30/2016 | 8 | 204 | - | 164 | 376 |
| 6/30/2015 | 8 | 205 | - | 157 | 370 |
| 6/30/2014 | 8 | 204 | - | 157 | 369 |
| 6/30/2013 | 8 | 212 | - | 154 | 374 |
| 6/30/2012 | 8 | 212 | - | 153 | 373 |
| 6/30/2011 | 8 | 214 | - | 152 | 374 |
| 6/30/2010 | 8 | 215 | - | 149 | 372 |
| 6/30/2009 | 8 | 217 | - | 150 | 375 |
| 6/30/2008 | 7 | 219 | - | 148 | 374 |

## Employers Covered by DRS-Administered Retirement Systems

As of June 30, 2017 - Page 1 of 12
Aging and Long-Term Care
Aging \& Long-Term Care of
Eastern WA
Olympic Area Agency on Aging
SE WA Aging \& Long Term Care
Council of Governments
SW WA Council Government on
Aging and Disability

## Air Quality Agencies

Benton Clean Air Agency NW Clean Air Agency
Olympic Region Clean Air Agency
Puget Sound Clean Air Agency
Spokane Regional Clean Air Agency
SW Clean Air Agency
Yakima Regional Clean Air Agency
Airports, Airport Boards

Pangborn Memorial Airport
Snohomish Co. Airport
Spokane International Airport
Walla Walla Regional Airport

## Associations, Unions

King Co. Directors' Association
Sound Cities Association
WA Federation of State
Employees

## Cemetery Districts

Cowlitz Co. Cemetery Dist.
1, 2 \& 5
Pend Oreille Cemetery Dist. 1
Skagit Co. Cemetery Dist. 2

| Charter Schools |
| :--- |
| Excel Public Charter School |
| Green Dot Public Schools |
| PRIDE Prep Schools |
| Quileute Tribal School |
| Rainier Prep |
| SOAR Academy |
| Spokane International Academy |
| Summit Public Schools |
|  |
| Cities and Towns |
| Aberdeen |
| Airway Heights |
| Algona |
| Anacortes |
| Arlington |
| Asotin |
| Auburn |
| Bainbridge Island |
| Battle Ground |
| Beaux Arts Village |
| Bellevue |
| Bellingham |
| Benton City |
| Bingen |
| Black Diamond |
| Blaine |
| Bonney Lake |
| Bothell |
| Bremerton |
| Brewster |
| Bridgeport |
| Brier |
| Buckley |
| Burien |
| Burlington |
| Camas |
| Carbonado (Town of) |
| Carnation |
| Cashmere |
| Castle Rock |
| Cathlamet (Town of) |

Cities and Towns (cont.)
Centralia
Chehalis
Chelan
Cheney
Chewelah
Clarkston
Cle Elum
Clyde Hill
Colfax
College Place
Colton (Town of)
Colville
Conconully (Town of)
Concrete (Town of)
Connell
Cosmopolis
Coulee City (Town of)
Coulee Dam (Town of)
Coupeville (Town of)
Creston (Town of)
Cusick (Town of)
Darrington (Town of)
Davenport
Dayton
Deer Park
Des Moines
DuPont
Duvall
East Wenatchee
Eatonville (Town of)
Edgewood
Edmonds
Electric City
Ellensburg
Elma
Elmer City (Town of)
Entiat
Enumclaw
Ephrata
Everett
Everson
Fairfield (Town of)

## Employers Covered by DRS-Administered Retirement Systems (cont.)

As of June 30, 2017 - Page 2 of 12

| Cities and Towns (cont.) | Cities and Towns (cont.) | Cities and Towns (cont.) |
| :---: | :---: | :---: |
| Federal Way | Lynden | Orting |
| Ferndale | Lynnwood | Othello |
| Fife | Mabton | Pacific |
| Fircrest | Mansfield (Town of) | Palouse |
| Forks | Maple Valley | Pasco |
| Friday Harbor (Town of) | Marysville | Pateros |
| Garfield (Town of) | Mattawa (City of) | Pe Ell (Town of) |
| George | McCleary | Port Angeles |
| Gig Harbor | Medical Lake | Port Orchard |
| Gold Bar | Medina | Port Townsend |
| Goldendale | Mercer Island | Poulsbo |
| Grand Coulee | Metaline Falls (Town of) | Prosser |
| Grandview | Mill Creek | Pullman |
| Granger (Town of) | Millwood (Town of) | Puyallup |
| Granite Falls | Milton | Quincy |
| Hamilton (Town of) | Monroe | Rainier |
| Harrington (Town of) | Montesano | Raymond |
| Hoquiam | Morton | Reardan (Town of) |
| Hunts Point (Town of) | Moses Lake | Redmond |
| Ilwaco | Mossyrock | Renton |
| Issaquah | Mount Vernon | Republic |
| Kalama | Mountlake Terrace | Richland |
| Kelso | Moxee | Ridgefield |
| Kenmore | Mukilteo | Ritzville |
| Kennewick | Naches (Town of) | Riverside (Town of) |
| Kent | Napavine | Rock Island |
| Kettle Falls | Newcastle | Rosalia (Town of) |
| Kirkland | Newport | Roslyn |
| Kittitas | Nooksack | Roy |
| La Center | Normandy Park | Royal City |
| La Conner (Town of) | North Bend | Ruston (Town of) |
| LaCrosse (Town of) | North Bonneville | Sammamish |
| Lacey | Northport (Town of) | SeaTac |
| Lake Forest Park | Oak Harbor | Seattle |
| Lake Stevens | Oakesdale (Town of) | Sedro-Woolley |
| Lakewood | Oakville | Selah |
| Langley | Ocean Shores | Sequim |
| Leavenworth | Odessa (Town of) | Shelton |
| Liberty Lake | Okanogan | Shoreline |
| Lind (Town of) | Olympia | Skykomish (Town of) |
| Long Beach | Omak | Snohomish |
| Longview | Oroville | Snoqualmie |

## Employers Covered by DRS-Administered Retirement Systems (cont.)

As of June 30, 2017 - Page 3 of 12

| Cities and Towns (cont.) |
| :--- |
| Soap Lake |
| South Bend |
| South Cle Elum (Town of) |
| Spangle (Town of) |
| Spokane |
| Spokane Valley |
| Sprague |
| Springdale (Town of) |
| Stanwood |
| Steilacoom (Town of) |
| Stevenson |
| Sultan |
| Sumas |
| Sumner |
| Sunnyside |
| Tacoma |
| Tekoa |
| Tenino |
| Tieton |
| Toledo |
| Tonasket |
| Toppenish |
| Tukwila |
| Tumwater |
| Twisp (Town of) |
| Union Gap |
| Uniontown (Town of) |
| University Place |
| Vancouver |
| Waitsburg |
| Walla Walla |
| Wapato |
| Warden |
| Washougal |
| Washtucna (Town of) |
| Waterville (Town of) |
| Wenatchee |
| West Richland |
| Westport |
| White Salmon |
| Winlock |
| Winthrop (Town of) |


| Cities and Towns (cont.) |
| :--- |
| Woodinville |
| Woodland |
| Woodway (Town of) |
| Yacolt (Town of) |
| Yakima |
| Yarrow Point (Town of) |
| Yelm |
| Zillah |
| Conservation Districts |
| Cascadia |
| Clallam |
| Columbia |
| Cowlitz |
| Grays Harbor |
| King |
| Kittitas |
| Okanogan |
| Pacific |
| San Juan Islands |
| Snohomish |
| Spokane Co. |
| Stevens Co. |
| Thurston |
| Wahkiakum |
| Councils |
| Columbia River Council of |
| Governments |
| Cowlitz-Wahkiakum Council of |
| Governments |
| Grays Harbor Council of Council of Governments |
| Governments |
| Lewis, Mason, Thurston Council of |
| Governments |
| Northwest Regional Council |
| Pacific Council of Governments |
| Pacific Mountain Workforce |
| Sevelopent Council |

## Councils (cont.)

South Central Workforce Council
Spokane Area Workforce
Development Council
Thurston Regional Planning
Council
Whatcom Council of
Governments

## Counties

Adams
Asotin
Benton
Chelan
Clallam
Clark
Columbia
Cowlitz
Douglas
Ferry
Franklin
Garfield
Grant
Grays Harbor
Island
Jefferson
King
Kitsap
Kittitas
Klickitat
Lewis
Lincoln
Mason
Okanogan
Pacific
Pend Oreille
Pierce
San Juan
Skagit
Skamania
Snohomish
Spokane
Stevens

## Employers Covered by DRS-Administered Retirement Systems (cont.)

As of June 30, 2017 - Page 4 of 12

| Counties (cont.) |
| :--- |
| Thurston |
| Wahkiakum |
| Walla Walla |
| Whatcom |
| Whitman |
| Yakima |
|  |
| Development |
| Authorities/Districts |
| Cultural Development Auth. of |
| $\quad$ King Co. |
| North Bonneville Public |
| Development Auth. |
| Seattle Southside Regional |
| $\quad$ Tourism Auth. |
| Tricounty Economic Development |
| Dist. |
| Walla Walla Valley Metro |
| Planning Org. |

## Educational Service <br> Districts

ESD 101
ESD 105
ESD 112
ESD 113
ESD 123
North Central ESD 171
Northwest ESD 189
Olympic ESD 114
Puget Sound ESD 121

## Emergency Services and

 Communication DistrictsClark Regional Emergency
Services Agency
Franklin Co. Emergency
Management
Grays Harbor Communications

## Emergency Services and

 Communications Districts (cont.)Island Co. Emergency Services
Communication Ctr.
Jefferson Co. 911
Communications
Kitsap 911 Public Auth.
KITTCOM
Mason Co. Emergency Communications
Multi Agency Communications Center
NORCOM 911
North Country Emergency
Medical Service
RIVERCOM
San Juan Island Emergency Medical Service
Skagit Emergency Communication Center
SNOCOM 911
Snohomish Co. Emergency Radio System
South Beach Ambulance Service
South Sound 911
Thurston 911 Communications
Valley Communication Center

## Fire Protection Districts

Adams Co. FPD 5
Asotin Co. FPD 1
Bainbridge Island Fire Dept.
Benton Co. FPDs 1, 2, 4 \& 6
Central Kitsap Fire \& Rescue
Central Whidbey Island Fire \& Rescue
Chelan Co. FPDs 1, 3, 5, 6, 7 \& 9
Clallam Co. FPDs 1, 2, 3 \& 5
Clark Co. Fire \& Rescue
Clark Co. FPDs 3, 5, 6, 10 \& 13
Columbia Co. FPD 3

Fire Protection Districts (cont.)
Cowlitz 02 Fire \& Rescue
Cowlitz Co. FPDs 1, 3, 5 \& 6
Cowlitz-Skamania Co. FPD 7
Douglas Co. FPD 2
Douglas-Okanogan Co. FPD 15
East County Fire \& Rescue
East Pierce Co. Fire \& Rescue
Franklin Co. FPD 3
Garfield Co. FPD 1
Grant Co. FPDs 3, 5, 8 \& 10
Grays Harbor Co. FPDs 2 \& 5
Island Co. FPD 1
Jefferson Co. FPDs 1, 2, 3 \& 4
King Co. FPDs 2, 10, 16, 20,
27, 28, 34, 39, 40, 43, 44, 45 \& 50
Kitsap Co. FPDs 7, 10 \& 18
Kittitas Co. FPDs $1,2 \& 7$
Klickitat Co. FPDs 3 \& 7
Lake Stevens Fire
Lewis Co. FPDs 2, 3, 5, 6, 10, 14 \& 15
Mason Co. FPDs 3, 4, 5, 6, 11 \& 13
North County Regional Fire Auth.
North Highline Fire Dist.
North Mason Regional Fire Auth.
North Whidbey Fire \& Rescue
Okanogan Co. FPD 6
Pacific Co. FPD 1
Pend Oreille FPDs 2, 3 \& 4
Pierce Co. FPDs 3, 5, 6, 10, 13, $14,16,17,18,21,23 \& 27$
Puget Sound Regional Fire Auth.
Renton Regional Fire Auth.
Riverside Fire Auth.
San Juan Co. FPDs 2, 3 \& 4
Shoreline Fire Dept.
Skagit Co. FPDs 6, 8, 13 \& 14
Snohomish Co. FPDs 1, 4, 5, 7, $12,15,17,19,21,22 \& 26$

## Employers Covered by DRS-Administered Retirement Systems (cont.)

As of June 30, 2017 - Page 5 of 12

| Fire Protection Districts (cont.) | Housing Authorities (cont.) |
| :---: | :---: |
|  | Pierce Co. |
| Snoqualmie Pass Fire \& Rescue | Renton |
| Southeast Thurston Fire Auth. | Seattle |
| South Whatcom Fire Auth. | Skagit Co. |
| South Whidbey Fire \& EMS | Snohomish Co. |
| $\begin{aligned} & \text { Spokane Co. FPDs } 1,3,4,8,9 \text {, } \\ & 10 \& 13 \end{aligned}$ | Spokane |
|  | Tacoma |
| Stevens Co. FPD 1 | Thurston Co. |
| Thurston Co. FPDs 3, 5, 6, 8, 9, 12,13 \& 17 | Vancouver |
|  | Walla Walla |
| Valley Regional Fire Auth. |  |
| Vashon Island Fire \& Rescue Walla Walla Co. FPDs 4 \& 5 | Insurance Authorities |
| Walla Walla Co. FPDs 4 \& 5 West Benton Regional Fire Auth. | Enduris Washington |
| West Thurston Regional Fire Auth. | Health Benefit Exchange |
| Whatcom Co. FPDs 1, 7, 11, 14, 17,18 \& 21 | Transit Insurance Pool of WA WA Cities Insurance Auth. |
| Woodinville Fire \& Rescue | WA Counties Insurance Fund |
| Yakima Co. FPDs 4, 5, 6 \& 12 | WA Counties Risk Pool |
|  | Water \& Sewer Insurance Pool |
| Housing Authorities |  |
| Anacortes | Irrigation, Sewer and Water Districts |
| Asotin Co. |  |
| Bellingham | Agnew Irrigation Dist. |
| Bremerton | Ahtanum Irrigation Dist. |
| Chelan Co./Wenatchee | Alderwood Water \& Wastewater |
| Everett | Dist. |
| Grant Co. | Beacon Hill Water \& Sewer Dist. |
| Grays Harbor Co. | Belfair Water Dist. |
| Island Co. | Benton Irrigation Dist. |
| Joint Republic Ferry Co. | Birch Bay Water \& Sewer Dist. |
| Kelso | Brewster Flat Irrigation Dist. |
| Kennewick | Cascade Irrigation Dist. |
| King Co. | Cedar River Water \& Sewer Dist. |
| Kitsap Co. Consolidated | Chinook Water Dist. |
| Kittitas Co. | Clark Regional Wastewater Dist. |
| Longview | Clinton Water Dist. |
| Okanogan Co. | Coal Creek Utility Dist. |
| Othello | Coalition for Clean Water |
| Pasco/Franklin Co. | Columbia Irrigation Dist. |
| Peninsula | Columbia Valley Water Dist. |

## Employers Covered by DRS-Administered Retirement Systems (cont.)

As of June 30, 2017 - Page 6 of 12

## Irrigation, Sewer and Water Districts (cont.)

Malaga Water Dist.
Manchester Water Dist.
Midway Sewer Dist.
Moab Irrigation Dist. 20
Model Irrigation Dist. 18
Moses Lake Irrigation \& Rehabilitation Dist.
Mukilteo Water \& Wastewater Dist.
Naches-Selah Irrigation Dist.
NE Sammamish Sewer \& Water Dist.
North City Water Dist.
North Beach Water Dist.
North Perry Ave. Water Dist.
North Spokane Irrigation Dist. 8
Northshore Utility Dist.
Okanogan Irrigation Dist.
Olympic View Water Dist.
Orchard Ave. Irrigation Dist.
Oroville-Tonasket Irrigation Dist.
Pasadena Park Irrigation Dist. 17
Point Roberts Water Dist. 4
Quincy-Columbia Basin Irrigation Dist.
Ronald Wastewater Dist.
Roza Irrigation Dist.
Samish Water Dist.
Sammamish Plateau Water \&
Sewer Dist.
Seaview Sewer Dist.
Selah-Moxee Irrigation Dist.
Silver Lake Water Dist.
Silverdale Water Dist. 16
Skyway Water \& Sewer Dist.
Snoqualmie Pass Utility Dist.
Soos Creek Water \& Sewer Dist.
South Columbia Basin Irrigation Dist.
South Kitsap Water Reclamation Facility

## Irrigation, Sewer and Water Districts (cont.)

Spokane Co. Water Dist. 3
Stemilt Irrigation Dist.
Stevens Pass Sewer Dist.
Sunland Water Dist.
Sunnyside Valley Irrigation Dist.
SW Suburban Sewer Dist.
Terrace Heights Sewer Dist.
Three Rivers Regional Wastewater
Auth.
Trentwood Irrigation Dist. 3
Valley View Sewer Dist.
Valley Water Dist.
Vera Water \& Power
Walla Walla Watershed Management
Wenatchee Reclamation Dist.
Whatcom Co. Water Dist. 2 \& 7
Whitestone Reclamation Dist.
Whitworth Water Dist. 2
Willapa Valley Water Dist.
Woodinville Water Dist.
Yakima-Tieton Irrigation Dist.

## Libraries, Library Districts

Asotin Co. Rural Library Dist.
Central Skagit Rural Library Dist.
Columbia Co. Rural Library Dist.
Fort Vancouver Regional Library
Jefferson Co. Rural Library Dist.
King Co. Law Library
King Co. Rural Library Dist.
Kitsap Co. Rural Library Dist.
La Conner Regional Library
Lopez Island Library Dist.
Mid-Columbia Library
North Central Regional Library
North Olympic Library System
Orcas Island Library Dist.
Pend Oreille Library
Pierce Co. Law Library

Libraries, Library Districts (cont.)<br>Pierce Co. Rural Library Dist.<br>San Juan Island Co. Library<br>Sno-Isle Regional Library<br>Spokane Co. Law Library<br>Spokane Co. Library Dist.<br>Stevens Co. Rural Library<br>Timberland Regional Library<br>Upper Skagit Library Dist.<br>Walla Walla Co. Rural Library Dist.<br>Whatcom Co. Public Library<br>Whitman Co. Rural Library<br>Yakima Valley Regional Library

## Mosquito Districts

Adams Co. Mosquito Dist.
Benton Co. Mosquito Control Dist.
Columbia Mosquito Control Dist.
Franklin Co. Mosquito Control
Dist.
Yakima Co. Mosquito Control

## Parks and Recreation Districts

Bainbridge Island Merro Parks \& Recreation Dist.
Eastmont Metropolitan Parks Dist. Fidalgo Pool \& Fitness Center
Key Peninsula Metro Park Dist.
Manson Parks \& Recreation Dist.
Metropolitan Park Dist. of Tacoma
Peninsula Metropolitan Park Dist.
San Juan Island Park \& Recreation Dist.
Si View Metropolitan Park Dist.
South Whidbey Parks \& Recreation Dist.

## Employers Covered by DRS-Administered Retirement Systems (cont.)

As of June 30, 2017 - Page 7 of 12

| Ports | Ports (cont.) |
| :---: | :---: |
| Allyn | Wahkiakum Co. 1 |
| Anacortes | Whitman Co. |
| Bellingham | Willapa Harbor |
| Benton | Woodland |
| Bremerton |  |
| Brownsville | Public Facility Districts |
| Camas-Washougal |  |
| Centralia | Asotin Co. Public Facilities Dist. |
| Chehalis | Edmonds Public Facilities Dist. |
| Chelan Co. | Lynnwood Public Facilities Dist. |
| Clarkston | Public Stadium Auth. |
| Columbia | Spokane Public Facility Dist. |
| Douglas Co. |  |
| Edmonds | Public Health |
| Everett | Public Health |
| Friday Harbor | Asotin Co. Health Dist. |
| Garfield Co. | Benton-Franklin Health Dist. |
| Grant Co. 1, 2, 9 \& 10 | Chelan-Douglas Health Dist. |
| Grays Harbor | Garfield Co. Health Dist. |
| Ilwaco | Grant Co. Health Dist. |
| Kalama | Great Rivers Behavioral Health |
| Kennewick | Organization |
| Kingston | Greater Columbia Behavioral |
| Klickitat | Health |
| Longview | Kittitas Co. Public Hospital Dist. 2 |
| Mattawa | Kitsap Public Health Dist. |
| Olympia | NE Tricounty Health Dist. |
| Orcas | North Sound Regional Support |
| Othello | Network |
| Pasco | Snohomish Health Dist. |
| Peninsula | Spokane Regional Health Dist. |
| Port Angeles | Yakima Co. Health Dist. |
| Port Townsend |  |
| Ridgefield | Public Utility Districts |
| Seattle Pricter |  |
| Shelton | Asotin Co. PUD 1 |
| Skagit Co. | Benton Co. PUD 1 |
| Skamania Co. | Chelan Co. PUD 1 |
| Sunnyside | Clallam Co. PUD 1 |
| Tacoma | Clark Co. PUD |
| Vancouver | Columbia Basin Hydropower |
| Walla Walla | Cowlitz Co. PUD 1 |

## Public Utility Districts (cont.)

Douglas Co. PUD 1
Energy Northwest
Ferry Co. PUD 1
Franklin Co. Public Works 1
Franklin Co. PUD 1
Grant Co. Public Works
Grant Co. PUD 2
Grays Harbor Co. PUD 1
Jefferson Co. PUD 1
Kitsap Co. PUD 1
Kittitas Co. PUD 1
Klickitat Co. PUD 1
Lewis Co. PUD 1
Mason Co. PUD 1 \& 3
Okanogan Co. PUD 1
Pacific Co. PUD 2
Pend Oreille Co. PUD 1
Skagit Co. PUD 1
Skamania Co. PUD 1
Snohomish Co. PUD 1
Stevens Co. PUD
Thurston Co. PUD 1
Wahkiakum Co. PUD 1
West Sound Utility Dist.

## Road Departments

Chelan Co. Roads
Lincoln Co. Highway Dept.

## School Districts

Aberdeen
Adna
Almira
Anacortes
Arlington
Asotin Anatone
Auburn
Bainbridge Island
Battle Ground

## Employers Covered by DRS-Administered Retirement Systems (cont.)

As of June 30, 2017 - Page 8 of 12

| School Districts (cont.) |
| :--- |
| Bellevue |
| Bellingham |
| Benge |
| Bethel |
| Bickleton |
| Blaine |
| Boistfort |
| Bremerton |
| Brewster |
| Bridgeport |
| Brinnon |
| Burlington-Edison |
| Camas |
| Cape Flattery |
| Carbonado Historical |
| Cascade |
| Cashmere |
| Castle Rock |
| Centerville |
| Central Kitsap |
| Central Valley |
| Centralia |
| Chehalis |
| Cheney |
| Chewelah |
| Chimacum |
| Clarkston |
| Cle Elum-Roslyn |
| Clover Park |
| Colfax |
| College Place |
| Colton |
| Columbia (Stevens Co.) |
| Columbia (Walla Walla Co.) |
| Colville |
| Concrete |
| Conway |
| Cosmopolis |
| Coulee Hartline |
| Coupeville |
| Crescent |
| Creston |


| School Districts (cont.) | School Districts (cont.) |
| :---: | :---: |
| Curlew | Harrington |
| Cusick | Highland |
| Damman | Highline |
| Darrington | Hockinson |
| Davenport | Hood Canal |
| Dayton | Hoquiam |
| Deer Park | Inchelium |
| Dieringer | Index |
| Dixie | Issaquah |
| East Valley (Spokane Co.) | Kahlotus |
| East Valley (Yakima Co.) | Kalama |
| Eastmont | Keller |
| Easton | Kelso |
| Eatonville | Kennewick |
| Edmonds | Kent |
| Ellensburg | Kettle Falls |
| Elma | Kiona-Benton City |
| Endicott | Kittitas |
| Entiat | Klickitat |
| Enumclaw | La Center |
| Ephrata | La Conner |
| Evaline | LaCrosse |
| Everett | Lake Chelan |
| Evergreen (Clark Co.) | Lake Stevens |
| Evergreen (Stevens Co.) | Lake Washington |
| Federal Way | Lakewood |
| Ferndale | Lamont |
| Fife | Liberty |
| Finley | Lind |
| Franklin Pierce | Longview |
| Freeman | Loon Lake |
| Garfield | Lopez |
| Glenwood | Lyle |
| Goldendale | Lynden |
| Grand Coulee Dam | Mabton |
| Grandview | Mansfield |
| Granger | Manson |
| Granite Falls | Mary M. Knight |
| Grapeview | Mary Walker |
| Great Northern | Marysville |
| Green Mountain | McCleary |
| Griffin | Mead |

## Employers Covered by DRS-Administered Retirement Systems (cont.)

As of June 30, 2017 - Page 9 of 12

| School Districts (cont.) |
| :--- |
| Medical Lake |
| Mercer Island |
| Meridian |
| Methow Valley |
| Mill A |
| Monroe |
| Montesano |
| Morton |
| Moses Lake |
| Mossyrock |
| Mount Adams |
| Mount Baker |
| Mount Pleasant |
| Mount Vernon |
| Mukilteo |
| Naches Valley |
| Napavine |
| Naselle-Grays River Valley |
| Nespelem |
| Newport |
| Nine Mile Falls |
| Nooksack Valley |
| North Beach |
| North Franklin |
| North Kitsap |
| North Mason |
| North River |
| North Thurston |
| Northport |
| Northshore |
| Oak Harbor |
| Oakesdale |
| Oakville |
| Ocean Beach |
| Ocosta |
| Odessa |
| Okanogan |
| Olympia |
| Omak |
| Onalaska |
| Onion Creek |
| Orcas Island |


| School Districts (cont.) |
| :--- |
| Orchard Prairie |
| Orient |
| Orondo |
| Oroville |
| Orting |
| Othello |
| Palisades |
| Palouse |
| Pasco |
| Pateros |
| Paterson |
| Pe Ell |
| Peninsula |
| Pioneer |
| Pomeroy |
| Port Angeles |
| Port Townsend |
| Prescott |
| Prosser |
| Pullman |
| Puyallup |
| Queets-Clearwater |
| Quilcene |
| Quillayute |
| Quinault Lake |
| Quincy |
| Rainier |
| Raymond |
| Reardan-Edwall |
| Renton |
| Republic |
| Richland |
| Ridgefield |
| Ritzville |
| Riverside |
| Riverview |
| Rochester |
| Roosevelt |
| Rosalia |
| Royal |
| Saint John |
| San Juan Island |

## School Districts (cont.)

Satsop
Seattle
Sedro-Woolley
Selah
Selkirk
Sequim
Shaw Island
Shelton
Shoreline
Skamania
Skykomish
Snohomish
Snoqualmie Valley
Soap Lake
South Bend
South Kitsap
South Whidbey
Southside
Spokane
Sprague
Stanwood-Camano
Star
Starbuck
Stehekin
Steilacoom Historical
Steptoe
Stevenson-Carson
Sultan
Summit
Sumner
Sunnyside
Tacoma
Taholah
Tahoma
Tekoa
Tenino
Thorp
Toledo
Tonasket
Toppenish
Touchet
Toutle Lake

## Employers Covered by DRS-Administered Retirement Systems (cont.)

As of June 30, 2017 - Page 10 of 12

| School Districts (cont.) | Transportation Authorities, |
| :---: | :---: |
| Trout Lake | Transportation Districts (cont.) |
| Tukwila | Chelan-Douglas Transportat |
| Union Gap | Council |
| University Place | Clallam Transit System |
| Valley | Clark Co. P.T.B.A. |
| Vancouver | Columbia Co. Public |
| Vashon Island | Transportation |
| Wahkiakum | Garfield Co. P.T.B.A. |
| Wahluke | Grant Co. P.T.B.A. |
| Waitsburg | Grays Harbor Transportation |
| Walla Walla | Auth. |
| Wapato | Island Co. P.T.B.A. |
| Warden Jr. Consolidated | Jefferson Transit Auth. |
| Washougal | Kitsap Co. P.T.B.A. |
| Washtucna | Lewis P.T.B.A. |
| Waterville | Mason Co. P.T.B.A. |
| Wellpinit | Okanogan Co. Transit Auth. |
| Wenatchee | Pacific Transit System |
| West Valley (Spokane Co.) | Pierce Co. P.T.B.A. |
| West Valley (Yakima Co.) | Snohomish Co. P.T.B.A. |
| White Pass | Spokane Regional Transportation |
| White River | Council |
| White Salmon | Spokane Transit Auth. |
| Wilbur | SW WA Regional Transportation |
| Willapa Valley | Council |
| Wilson Creek | Thurston Co. P.T.B.A. |
| Winlock | Valley Transit |
| Wishkah Valley | Whatcom Transportation Auth. |
| Wishram |  |
| Woodland | Weed Control Districts |
| Yakima |  |
| Yelm | Benton Co. Noxious Weed |
| Zillah | Control Board |
|  | Grant Co. Noxious Weed Board |
| Transportation Authorities, | Grant Co. Weed Dist. 3 <br> Pierce Co. Noxious Weed Board |
| Transportation Districts | Spokane Co. Noxious Weed |
| Asotin Co. | Control Board |
| Ben Franklin Transit |  |
| Chelan-Douglas P.T.B.A. |  |

Transportation Authorities, Transportation Districts
(cont.)
Chelan-Douglas Transportation
Council
Clallam Transit System
Clark Co. P.T.B.A.
Columbia Co. Public
Transportation
Garfield Co. P.T.B.A.
Grant Co. P.T.B.A.
Grays Harbor Transportation
Auth.
Island Co. P.T.B.A.
Jefferson Transit Auth.
Kitsap Co. P.T.B.A.
Lewis P.T.B.A.
Mason Co. P.T.B.A.
Okanogan Co. Transit Auth.
Pacific Transit System
Pierce Co. P.T.B.A.
Snohomish Co. P.T.B.A.
Spokane Regional Transportation
Council
Spokane Transit Auth.
SW WA Regional Transportation Council
Thurston Co. P.T.B.A.
Valley Transit
Whatcom Transportation Auth.

Weed Control Districts

Benton Co. Noxious Weed Control Board
Grant Co. Noxious Weed Board
Grant Co. Weed Dist. 3
Pierce Co. Noxious Weed Board
Spokane Co. Noxious Weed
Control Board

## Other

## Other Government Entities

Housing Authorities Risk Retention Pool
Lower Columbia Fish Recovery Board
Northwest Seaport Alliance Port Development Auth.
School Information Processing Cooperative
Snohomish Co. Police Staff Auxiliary
South Correctional Entity
Tacoma-Pierce Co. Employment \& Training Consortium
Yakima Valley Conference of Governments

## State Entities

## State Agencies

Administrative Office of the Courts
Archaeology-Historic Preservation
Board for Volunteer Firefighters
Board of Industrial Insurance Appeals
Board of Tax Appeals
Child Study \& Treatment Center
Civil Legal Aide
Consolidated Support Services
Consolidated Technology Services
County Road Administration Board
Court of Appeals
Dept. of Agriculture
Dept. of Commerce
Dept. of Corrections
Dept. of Early Learning
Dept. of Ecology
Dept. of Employment Security
Dept. of Enterprise Services

## Employers Covered by DRS-Administered Retirement Systems (cont.)

As of June 30, 2017 - Page 11 of 12

## State Agencies (cont.)

Dept. of Financial Institutions
Dept. of Fish \& Wildlife
Dept. of Health
Dept. of Labor \& Industries
Dept. of Licensing
Dept. of Natural Resources
Dept. of Retirement Systems
Dept. of Revenue
Dept. of Services for the Blind
Dept. of Social \& Health
Services (8)
Dept. of Transportation
Dept. of Veterans Affairs
Eastern State Hospital
Eastern WA State Historical Society
Echo Glen Children's Center
Economic Development Finance Auth.
Environmental \& Land Use Hearings Office
Fircrest School
Green Hill School
Health Care Facilities Auth.
House of Representatives
Indian Advisory Council
Innovate Washington
Joint Legislative Audit \& Review Committee
Joint Legislative Systems Committee
Joint Transportation Committee
Lakeland Village
Law Library
LEAP Committee
LEOFF Plan 2 Retirement Board
Liquor \& Cannabis Board
Military Dept.
Naselle Youth Camp
Office of Administrative Hearings
Office of Financial Management
Office of Minority \& Women's
Business Enterprises

## State Agencies (cont.)

Office of Public Defense
Office of the Attorney General
Office of Forecast Council
Office of the Governor
Office of the Insurance
Commissioner
Office of Legislative Support Services
Office of the Lieutenant Governor
Office of the Secretary of State
Office of the State Actuary
Office of the State Auditor
Office of the State Treasurer
Puget Sound Partnership
Rainier School
Recreation \& Conservation Office
Senate
Special Commitment Center
State Board for Community \&
Technical Colleges
State Board of Accountancy
Statute Law Committee
Student Achievement Council
Superintendent of Public Instruction
Supreme Court
Transportation Improvement Board
Veterans Home - Spokane
Veterans Home - Walla Walla
WA Pollution Liability Insurance Agency
WA Soldiers Home \& Colony
WA State Bar Association
WA State Caseload Forecast Council
WA State Ferries
WA State Health Care Auth.
WA State Historical Society
WA State Investment Board
WA State Patrol

## State Agencies (cont.)

WA State School Directors' Association
WA State School for the Blind
WA State School for the Deaf
WA Veterans Home
Western State Hospital
Workforce Training \& Education
Coordinating Board
Yakima Valley School

## State Commissions

African-American Affairs
Apple
Arts
Asian American Affairs
Beef
Charter School
Columbia River Gorge
Conservation
Criminal Justice Training
Dairy Products
Fruit
Gambling
Grain
Hispanic Affairs
Hop
Horse Racing
Housing Finance
Human Rights
Judicial Conduct
Lottery
Parks \& Recreation
Potato
Public Disclosure
Public Employment Relations
Puget Sound Pilotage
Salaries for Elected Officials
Traffic Safety
Tree Fruit Research
Utilities \& Transportation
Wine

## Employers Covered by DRS-Administered Retirement Systems (cont.)

As of June 30, 2017 - Page 12 of 12

| Technical Colleges, |
| :--- |
| Community Colleges |
| Bates Technical College |
| Bellevue Community College |
| Bellingham Technical College |
| Big Bend Community College |
| Cascadia College |
| Centralia College |
| Clark Community College |
| Clover Park Technical College |
| Columbia Basin Community |
| College |
| Edmonds Community College |
| Everett Community College |
| Grays Harbor College |
| Green River College |
| Highline Community College |
| Lake Washington Institute of |
| Technology |
| Lower Columbia Community |
| College |
| Olympic College |
| Peninsula College |
| Pierce College |
| Renton Technical College |
| Seattle Community College |
| Shoreline Community College |
| Skagit Valley College |
| South Puget Sound Community |
| College |
| Spokane Community College |
| Tacoma Community College |
| Walla Walla Community College |
| Wenatchee Valley College |
| Whatcom Community College |
| Yakima Valley College |

## Universities

Central Washington University
Eastern Washington University
Evergreen State College
University of Washington
Washington State University
Western Washington University

## Schedules of Benefit Recipients by Type of Benefit

## PERS Plan 1

For the 12 Months Ended June 30, 2016

|  |  | Retirement Type |  |  |  | Option Selected ${ }^{1}$ |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Benefit Amount | Number of Retirees | Service | Duty Disability | Nonduty Disability | Survivor Payment | $\begin{array}{r} 1 \\ \text { Life } \end{array}$ | $\begin{array}{r} 2 \\ 100 \% \end{array}$ | $\begin{array}{r} 3 \\ 50 \% \end{array}$ | $\begin{array}{r} 4 \\ 66 \% \end{array}$ |
| \$ 0-500 ${ }^{2}$ | 3,449 | 2,597 | 5 | 175 | 672 | 2,273 | 774 | 363 | 39 |
| 501-1,000 | 7,556 | 5,301 | 3 | 327 | 1,925 | 4,625 | 1,600 | 1,193 | 138 |
| 1,001-1,500 | 7,781 | 6,006 | 2 | 244 | 1,529 | 4,754 | 1,755 | 1,073 | 199 |
| 1,501-2,000 | 9,407 | 8,526 | - | 129 | 752 | 6,541 | 1,582 | 990 | 294 |
| 2,001-2,500 | 7,059 | 6,659 | - | 25 | 375 | 4,749 | 1,163 | 819 | 328 |
| 2,501-3,000 | 5,088 | 4,894 | - | 11 | 183 | 3,355 | 797 | 654 | 282 |
| 3,001-3,500 | 3,369 | 3,273 | - | 4 | 92 | 2,247 | 445 | 425 | 252 |
| 3,501-4,000 | 2,175 | 2,131 | - | - | 44 | 1,397 | 349 | 268 | 161 |
| Over 4,000 | 3,384 | 3,324 | - | 1 | 59 | 1,976 | 512 | 513 | 383 |
| Totals | 49,268 | 42,711 | 10 | 916 | 5,631 | 31,917 | 8,977 | 6,298 | 2,076 |

${ }^{1} \mathbf{1}$ (Life): Retiree's lifetime; $\mathbf{2}$ (100\%): Beneficiary receives same monthly benefit for life; $\mathbf{3} \mathbf{( 5 0 \% ) : ~ B e n e f i c i a r y ~ r e c e i v e s ~ h a l f ~ t h e ~ m o n t h l y ~ b e n e f i t ~ f o r ~ l i f e ; ~}$ or $\mathbf{4}$ (66\%): Beneficiary receives two-thirds the monthly benefit for life
${ }^{2}$ Includes L\&I holdoffs

## PERS Plan 2

For the 12 Months Ended June 30, 2016

|  |  | Retirement Type |  |  |  | Option Selected ${ }^{1}$ |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Benefit Amount | Number of Retirees | Service | Duty Disability | Nonduty Disability | Survivor <br> Payment | $\begin{array}{r} 1 \\ \text { Life } \end{array}$ | $\begin{array}{r} 2 \\ 100 \% \end{array}$ | $\begin{array}{r} 3 \\ 50 \% \end{array}$ | $\begin{array}{r} 4 \\ 66 \% \end{array}$ |
| \$ 0-500 | 8,316 | 6,231 | - | 1,067 | 1,018 | 5,587 | 2,053 | 488 | 188 |
| 501-1,000 | 9,676 | 8,097 | - | 612 | 967 | 6,206 | 2,377 | 730 | 363 |
| 1,001-1,500 | 7,975 | 7,365 | - | 168 | 442 | 5,171 | 1,636 | 795 | 373 |
| 1,501-2,000 | 5,552 | 5,337 | - | 32 | 183 | 3,708 | 893 | 652 | 299 |
| 2,001-2,500 | 3,715 | 3,621 | - | 12 | 82 | 2,334 | 601 | 523 | 257 |
| 2,501-3,000 | 2,492 | 2,448 | - | 3 | 41 | 1,623 | 325 | 369 | 175 |
| 3,001-3,500 | 1,710 | 1,684 | - | 3 | 23 | 1,064 | 221 | 281 | 144 |
| 3,501-4,000 | 1,041 | 1,030 | - | 1 | 10 | 662 | 127 | 168 | 84 |
| Over 4,000 | 2,114 | 2,100 | - | 2 | 12 | 1,331 | 206 | 377 | 200 |
| Totals | 42,591 | 37,913 | - | 1,900 | 2,778 | 27,686 | 8,439 | 4,383 | 2,083 |

[^23]
## Schedules of Benefit Recipients by Type of Benefit (cont.)

## PERS Plan 3

For the 12 Months Ended June 30, 2016

|  |  | Retirement Type |  |  |  | Option Selected ${ }^{1}$ |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Benefit Amount | Number of Retirees | Service | Duty Disability | Nonduty Disability | Survivor Payment | $\begin{array}{r} 1 \\ \text { Life } \end{array}$ | $\begin{array}{r} 2 \\ 100 \% \end{array}$ | $\begin{array}{r} 3 \\ 50 \% \end{array}$ | $\begin{array}{r} 4 \\ 66 \% \end{array}$ |
| \$ 0-500 | 1,401 | 1,171 | - | 76 | 154 | 902 | 369 | 85 | 45 |
| 501-1,000 | 1,100 | 1,032 | - | 14 | 54 | 712 | 233 | 106 | 49 |
| 1,001-1,500 | 580 | 571 | - | 1 | 8 | 385 | 92 | 71 | 32 |
| 1,501-2,000 | 335 | 330 | - | 2 | 3 | 214 | 54 | 37 | 30 |
| 2,001-2,500 | 159 | 158 | - | - | 1 | 102 | 21 | 25 | 11 |
| 2,501-3,000 | 70 | 70 | - | - | - | 44 | 7 | 12 | 7 |
| 3,001-3,500 | 28 | 28 | - | - | - | 19 | 2 | 4 | 3 |
| 3,501-4,000 | 5 | 5 | - | - | - | 4 | 1 | - | - |
| Over 4,000 | 6 | 6 | - | - | - | 5 | - | 1 | - |
| Totals | 3,684 | 3,371 | - | 93 | 220 | 2,387 | 779 | 341 | 177 |

${ }^{1} \mathbf{1}$ (Life): Retiree's lifetime; $\mathbf{2}$ (100\%): Beneficiary receives same monthly benefit for life; $\mathbf{3} \mathbf{( 5 0 \% ) : ~ B e n e f i c i a r y ~ r e c e i v e s ~ h a l f ~ t h e ~ m o n t h l y ~ b e n e f i t ~ f o r ~ l i f e ; ~}$ or $\mathbf{4}$ (66\%): Beneficiary receives two-thirds the monthly benefit for life

## SERS Plan 2

For the 12 Months Ended June 30, 2016

|  |  | Retirement Type |  |  |  | Option Selected ${ }^{1}$ |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Benefit Amount | Number of Retirees | Service | $\begin{array}{r} \text { Duty } \\ \text { Disability } \end{array}$ | Nonduty Disability | Survivor Payment | $\begin{array}{r} 1 \\ \text { Life } \end{array}$ | $\begin{array}{r} 2 \\ 100 \% \end{array}$ | $\begin{array}{r} 3 \\ 50 \% \end{array}$ | $\begin{array}{r} 4 \\ 66 \% \end{array}$ |
| \$ 0-500 | 2,590 | 2,212 | - | 195 | 183 | 1,872 | 538 | 123 | 57 |
| 501-1,000 | 2,590 | 2,418 | - | 57 | 115 | 1,884 | 446 | 183 | 77 |
| 1,001-1,500 | 1,203 | 1,159 | - | 7 | 37 | 851 | 167 | 122 | 63 |
| 1,501-2,000 | 530 | 522 | - | 2 | 6 | 392 | 65 | 54 | 19 |
| 2,001-2,500 | 235 | 232 | - | 1 | 2 | 156 | 28 | 38 | 13 |
| 2,501-3,000 | 107 | 105 | - | - | 2 | 79 | 8 | 17 | 3 |
| 3,001-3,500 | 55 | 55 | - | - | - | 36 | 8 | 6 | 5 |
| 3,501-4,000 | 29 | 29 | - | - | - | 25 | 2 | 1 | 1 |
| Over 4,000 | 41 | 41 | - | - | - | 27 | 2 | 9 | 3 |
| Totals | 7,380 | 6,773 | - | 262 | 345 | 5,322 | 1,264 | 553 | 241 |

1 (Life): Retiree's lifetime; $\mathbf{2}$ (100\%): Beneficiary receives same monthly benefit for life; $\mathbf{3} \mathbf{( 5 0 \% )}$ : Beneficiary receives half the monthly benefit for life; or 4 (66\%): Beneficiary receives two-thirds the monthly benefit for life

## Schedules of Benefit Recipients by Type of Benefit (cont.)

## SERS Plan 3

For the 12 Months Ended June 30, 2016

|  |  | Retirement Type |  |  |  | Option Selected ${ }^{1}$ |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Benefit Amount | Number of Retirees | Service |  | Nonduty Disability | Survivor Payment | $\begin{array}{r} 1 \\ \text { Life } \end{array}$ | $\begin{array}{r} 2 \\ 100 \% \end{array}$ | $\begin{array}{r} 3 \\ 50 \% \end{array}$ | $\begin{array}{r} 4 \\ 66 \% \end{array}$ |
| \$ 0-500 | 4,506 | 4,232 | - | 81 | 193 | 3,253 | 938 | 216 | 99 |
| 501-1,000 | 1,685 | 1,649 | - | 6 | 30 | 1,212 | 257 | 152 | 64 |
| 1,001-1,500 | 376 | 373 | - | 1 | 2 | 270 | 44 | 44 | 18 |
| 1,501-2,000 | 102 | 102 | - | - | - | 81 | 9 | 8 | 4 |
| 2,001-2,500 | 26 | 26 | - | - | - | 21 | 5 | - | - |
| 2,501-3,000 | 4 | 4 | - | - | - | 2 | 2 | - | - |
| 3,001-3,500 | 6 | 6 | - | - | - | 4 | 1 | 1 | - |
| 3,501-4,000 | 2 | 2 | - | - | - | 2 | - | - | - |
| Over 4,000 | 1 | 1 | - | - | - | 1 | - | - | - |
| Totals | 6,708 | 6,395 | - | 88 | 225 | 4,846 | 1,256 | 421 | 185 |

${ }^{1} \mathbf{1}$ (Life): Retiree's lifetime; $\mathbf{2}$ (100\%): Beneficiary receives same monthly benefit for life; $\mathbf{3} \mathbf{( 5 0 \% ) : ~ B e n e f i c i a r y ~ r e c e i v e s ~ h a l f ~ t h e ~ m o n t h l y ~ b e n e f i t ~ f o r ~ l i f e ; ~}$ or $\mathbf{4}$ (66\%): Beneficiary receives two-thirds the monthly benefit for life

## PSERS Plan 2

For the 12 Months Ended June 30, 2016

|  |  | Retirement Type |  |  |  | Option Selected ${ }^{1}$ |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Benefit Amount | Number of Retirees | Service | Duty Disability | Nonduty Disability | Survivor Payment | $\begin{array}{r} 1 \\ \text { Life } \end{array}$ | $\begin{array}{r} 2 \\ 100 \% \end{array}$ | $\begin{array}{r} 3 \\ 50 \% \end{array}$ | $\begin{array}{r} 4 \\ 66 \% \end{array}$ |
| \$ 0-500 | 49 | 36 | - | 8 | 5 | 31 | 13 | 1 | 4 |
| 501-1,000 | 47 | 46 | - | - | 1 | 36 | 6 | 3 | 2 |
| 1,001-1,500 | 11 | 11 | - | - | - | 11 | - | - | - |
| 1,501-2,000 | 1 | 1 | - | - | - | 1 | - | - | - |
| 2,001-2,500 | - | - | - | - | - | - | - | - | - |
| 2,501-3,000 | - | - | - | - | - | - | - | - | - |
| 3,001-3,500 | - | - | - | - | - | - | - | - | - |
| 3,501-4,000 | - | - | - | - | - | - | - | - | - |
| Over 4,000 | - | - | - | - | - | - | - | - | - |
| Totals | 108 | 94 | - | 8 | 6 | 79 | 19 | 4 | 6 |

1 (Life): Retiree's lifetime; $\mathbf{2}$ (100\%): Beneficiary receives same monthly benefit for life; $\mathbf{3} \mathbf{( 5 0 \% )}$ : Beneficiary receives half the monthly benefit for life; or 4 (66\%): Beneficiary receives two-thirds the monthly benefit for life

## Schedules of Benefit Recipients by Type of Benefit (cont.)

## TRS Plan 1

For the 12 Months Ended June 30, 2016

|  |  | Retirement Type |  |  |  | Option Selected ${ }^{1}$ |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Benefit <br> Amount | Number of Retirees | Service | Duty Disability | Nonduty Disability | Survivor Payment | $\begin{array}{r} 1 \\ \text { Life } \end{array}$ | $\begin{array}{r} 2 \\ 100 \% \end{array}$ | $\begin{array}{r} 3 \\ 50 \% \end{array}$ | $\begin{array}{r} 4 \\ 66 \% \end{array}$ |
| \$ 0-500 | 1,336 | 1,145 | - | 32 | 159 | 918 | 314 | 86 | 18 |
| 501-1,000 | 2,754 | 1,811 | - | 120 | 823 | 1,493 | 571 | 643 | 47 |
| 1,001-1,500 | 3,643 | 2,667 | - | 122 | 854 | 1,802 | 1,075 | 641 | 125 |
| 1,501-2,000 | 9,266 | 8,521 | - | 180 | 565 | 6,228 | 1,834 | 896 | 308 |
| 2,001-2,500 | 7,343 | 7,031 | - | 57 | 255 | 4,998 | 1,266 | 786 | 293 |
| 2,501-3,000 | 4,452 | 4,314 | - | 20 | 118 | 2,722 | 909 | 547 | 274 |
| 3,001-3,500 | 2,887 | 2,843 | - | 2 | 42 | 1,737 | 587 | 352 | 211 |
| 3,501-4,000 | 1,555 | 1,526 | - | 2 | 27 | 923 | 314 | 201 | 117 |
| Over 4,000 | 1,551 | 1,524 | - | 3 | 24 | 888 | 299 | 225 | 139 |
| Totals | 34,787 | 31,382 | - | 538 | 2,867 | 21,709 | 7,169 | 4,377 | 1,532 |

${ }^{1} \mathbf{1}$ (Life): Retiree's lifetime; $\mathbf{2}$ (100\%): Beneficiary receives same monthly benefit for life; $\mathbf{3} \mathbf{( 5 0 \% ) : ~ B e n e f i c i a r y ~ r e c e i v e s ~ h a l f ~ t h e ~ m o n t h l y ~ b e n e f i t ~ f o r ~ l i f e ; ~}$ or $\mathbf{4}$ (66\%): Beneficiary receives two-thirds the monthly benefit for life

TRS Plan 2
For the 12 Months Ended June 30, 2016

|  |  | Retirement Type |  |  |  | Option Selected ${ }^{1}$ |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Benefit Amount | Number of Retirees | Service | Duty Disability | Nonduty Disability | Survivor Payment | $\begin{array}{r} 1 \\ \text { Life } \end{array}$ | $\begin{array}{r} 2 \\ 100 \% \end{array}$ | $\begin{array}{r} 3 \\ 50 \% \end{array}$ | $\begin{array}{r} 4 \\ 66 \% \end{array}$ |
| \$ 0-500 | 501 | 441 | - | 27 | 33 | 349 | 118 | 26 | 8 |
| 501-1,000 | 767 | 651 | - | 37 | 79 | 487 | 182 | 57 | 41 |
| 1,001-1,500 | 696 | 655 | - | 11 | 30 | 471 | 134 | 50 | 41 |
| 1,501-2,000 | 730 | 699 | - | 5 | 26 | 467 | 142 | 72 | 49 |
| 2,001-2,500 | 737 | 731 | - | 1 | 5 | 482 | 115 | 89 | 51 |
| 2,501-3,000 | 498 | 494 | - | 1 | 3 | 357 | 71 | 47 | 23 |
| 3,001-3,500 | 345 | 339 | - | - | 6 | 231 | 48 | 42 | 24 |
| 3,501-4,000 | 228 | 226 | - | - | 2 | 175 | 11 | 21 | 21 |
| Over 4,000 | 185 | 184 | - | - | 1 | 133 | 20 | 24 | 8 |
| Totals | 4,687 | 4,420 | - | 82 | 185 | 3,152 | 841 | 428 | 266 |

1 (Life): Retiree's lifetime; $\mathbf{2}$ (100\%): Beneficiary receives same monthly benefit for life; $\mathbf{3} \mathbf{( 5 0 \% )}$ : Beneficiary receives half the monthly benefit for life; or 4 (66\%): Beneficiary receives two-thirds the monthly benefit for life

## Schedules of Benefit Recipients by Type of Benefit (cont.)

## TRS Plan 3

For the 12 Months Ended June 30, 2016

|  |  | Retirement Type |  |  |  | Option Selected ${ }^{1}$ |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Benefit Amount | Number of Retirees | Service | Duty Disability | Nonduty Disability | Survivor Payment | $\begin{array}{r} 1 \\ \text { Life } \end{array}$ | $\begin{array}{r} 2 \\ 100 \% \end{array}$ | $\begin{array}{r} 3 \\ 50 \% \end{array}$ | $\begin{array}{r} 4 \\ 66 \% \end{array}$ |
| \$ 0-500 | 1,888 | 1,605 | - | 71 | 212 | 1,210 | 537 | 86 | 55 |
| 501-1,000 | 2,461 | 2,344 | - | 11 | 106 | 1,684 | 481 | 194 | 102 |
| 1,001-1,500 | 2,129 | 2,091 | - | 2 | 36 | 1,308 | 453 | 233 | 135 |
| 1,501-2,000 | 1,623 | 1,609 | - | 1 | 13 | 1,098 | 227 | 196 | 102 |
| 2,001-2,500 | 554 | 552 | - | - | 2 | 422 | 44 | 59 | 29 |
| 2,501-3,000 | 128 | 127 | - | - | 1 | 91 | 16 | 15 | 6 |
| 3,001-3,500 | 36 | 36 | - | - | - | 25 | 1 | 6 | 4 |
| 3,501-4,000 | 17 | 17 | - | - | - | 16 | 1 | - | - |
| Over 4,000 | 7 | 7 | - | - | - | 5 | 1 | 1 | - |
| Totals | 8,843 | 8,388 | - | 85 | 370 | 5,859 | 1,761 | 790 | 433 |

${ }^{1} 1$ (Life): Retiree's lifetime; 2 (100\%): Beneficiary receives same monthly benefit for life; $\mathbf{3} \mathbf{( 5 0 \% )}$ : Beneficiary receives half the monthly benefit for life; or $\mathbf{4}$ (66\%): Beneficiary receives two-thirds the monthly benefit for life

## LEOFF Plan 1

For the 12 Months Ended June 30, 2016

|  |  | Retirement Type |  |  |  | Option Selected ${ }^{1}$ |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Benefit <br> Amount | Number of Retirees | Service | Duty Disability | Nonduty Disability | Survivor Payment | $\begin{array}{r} 1 \\ \text { Life } \end{array}$ | $\begin{array}{r} 2^{2} \\ 100 \% \end{array}$ | $\begin{array}{r} 3^{2} \\ 50 \% \end{array}$ | $\begin{array}{r} 4^{2} \\ 66 \% \end{array}$ | (Standard) |
| \$ 0-500 | 19 | 14 | - | - | 5 | - | 1 | 1 | - | 17 |
| 501-1,000 | 49 | 37 | - | - | 12 | 1 | 2 | - | - | 46 |
| 1,001-1,500 | 51 | 27 | 1 | - | 23 | - | 5 | 3 | - | 43 |
| 1,501-2,000 | 76 | 24 | 11 | 11 | 30 | - | 7 | 4 | 2 | 63 |
| 2,001-2,500 | 303 | 50 | 109 | 51 | 93 | 2 | 59 | 6 | 9 | 227 |
| 2,501-3,000 | 873 | 127 | 383 | 118 | 245 | 9 | 149 | 8 | 9 | 698 |
| 3,001-3,500 | 1,605 | 247 | 788 | 150 | 420 | 8 | 158 | 16 | 24 | 1,399 |
| 3,501-4,000 | 1,534 | 335 | 792 | 54 | 353 | 21 | 58 | 9 | 9 | 1,437 |
| Over 4,000 | 2,868 | 1,651 | 761 | 11 | 445 | 8 | 55 | 11 | 17 | 2,777 |
| Totals | 7,378 | 2,512 | 2,845 | 395 | 1,626 | 49 | 494 | 58 | 70 | 6,707 |

${ }^{1} 1$ (Life): Retiree's lifetime; $\mathbf{2}$ (100\%): Beneficiary receives same monthly benefit for life; $\mathbf{3} \mathbf{( 5 0 \% )}$ : Beneficiary receives half the monthly benefit for life; 4 (66\%): Beneficiary receives two-thirds the monthly benefit for life; or $\mathbf{A}$ (Standard): Standard option, 100\% joint and survivor, with additional benefits to eligible children

[^24]
## Schedules of Benefit Recipients by Type of Benefit (cont.)

## LEOFF Plan 2

For the 12 Months Ended June 30, 2016

|  |  | Retirement Type |  |  |  | Option Selected ${ }^{1}$ |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Benefit <br> Amount | Number of Retirees | Service | Duty Disability | Nonduty Disability | Survivor Payment | $\begin{array}{r} 1 \\ \text { Life } \end{array}$ | $\begin{array}{r} 2^{2} \\ 100 \% \end{array}$ | $\begin{array}{r} 3^{2} \\ 50 \% \end{array}$ | $\begin{array}{r} 4^{2} \\ 66 \% \end{array}$ |
| \$ 0-500 | 101 | 62 | 11 | 6 | 22 | 51 | 41 | 8 | 1 |
| 501-1,000 | 219 | 155 | 24 | 3 | 37 | 95 | 102 | 12 | 10 |
| 1,001-1,500 | 268 | 205 | 33 | 7 | 23 | 105 | 119 | 24 | 20 |
| 1,501-2,000 | 273 | 197 | 36 | 8 | 32 | 101 | 122 | 28 | 22 |
| 2,001-2,500 | 321 | 267 | 30 | 5 | 19 | 112 | 140 | 41 | 28 |
| 2,501-3,000 | 378 | 316 | 34 | 3 | 25 | 149 | 148 | 49 | 32 |
| 3,001-3,500 | 438 | 379 | 35 | 7 | 17 | 195 | 142 | 57 | 44 |
| 3,501-4,000 | 432 | 384 | 30 | 7 | 11 | 179 | 142 | 65 | 46 |
| Over 4,000 | 1,829 | 1,695 | 93 | 7 | 34 | 822 | 449 | 293 | 265 |
| Totals | 4,259 | 3,660 | 326 | 53 | 220 | 1,809 | 1,405 | 577 | 468 |

${ }^{1} 1$ (Life): Retiree's lifetime; $\mathbf{2}$ (100\%): Beneficiary receives same monthly benefit for life; $\mathbf{3} \mathbf{( 5 0 \% )}$ : Beneficiary receives half the monthly benefit for life; or 4 (66\%): Beneficiary receives two-thirds the monthly benefit for life
${ }^{2}$ Joint and survivor options are available for post-retirement marriages.

WSPRS Plan 1
For the 12 Months Ended June 30, 2016

| Monthly Benefit Amount | Number of Retirees | Retirement Type |  |  |  | Option Selected ${ }^{1}$ |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Service | Duty <br> Disability | Nonduty Disability | Survivor <br> Payment | A | B | Life |
| \$ 0-500 | 4 | 4 | - | - | - | 2 | 2 | - |
| 501-1,000 | 10 | 3 | - | - | 7 | 7 | 3 | - |
| 1,001-1,500 | 27 | 10 | - | - | 17 | 22 | 5 | - |
| 1,501-2,000 | 25 | 6 | - | - | 19 | 25 | - | - |
| 2,001-2,500 | 37 | 12 | - | - | 25 | 28 | 9 | - |
| 2,501-3,000 | 39 | 16 | - | - | 23 | 31 | 8 | - |
| 3,001-3,500 | 123 | 90 | - | - | 33 | 45 | 75 | 3 |
| 3,501-4,000 | 185 | 168 | - | - | 17 | 74 | 110 | 1 |
| Over 4,000 | 628 | 609 | - | - | 19 | 273 | 341 | 14 |
| Totals | 1,078 | 918 | - | - | 160 | 507 | 553 | 18 |

${ }^{1}$ A: $\mathbf{1 0 0 \%}$ joint and survivor, with initial pension equal to the lesser of $50 \%$ AFC and $100 \%$ member's accrued benefit; B: $100 \%$ joint and survivor, with initial pension being the actuarial equivalent of the single-life annuity - this option is available for post-retirement marriages; or Life: Single-life annuity, joint annuitant removed post-retirement

Schedules of Benefit Recipients by Type of Benefit (cont.)

## JRS

For the 12 Months Ended June 30, 2016

|  |  | Retirement Type |  |  |  | Option Selected ${ }^{1}$ |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Benefit Amount | Number of Retirees | Service | Duty Disability | Nonduty Disability | Survivor <br> Payment | $\begin{array}{r} 1 \\ \text { Life } \end{array}$ | $\begin{array}{r} 2^{2} \\ 100 \% \end{array}$ | $\begin{array}{r} 3^{2} \\ 50 \% \end{array}$ | $\begin{array}{r} 4^{2} \\ 66 \% \end{array}$ | $\begin{array}{r} \text { A } \\ \text { (Standard) } \end{array}$ |
| \$ 0-500 | - | - | - | - | - | - | - | - | - | - |
| 501-1,000 | - | - | - | - | - | - | - | - | - | - |
| 1,001-1,500 | - | - | - | - | - | - | - | - | - | - |
| 1,501-2,000 | - | - | - | - | - | - | - | - | - | - |
| 2,001-2,500 | 1 | - | - | - | 1 | - | - | - | - | 1 |
| 2,501-3,000 | 1 | - | - | - | 1 | - | - | - | - | 1 |
| 3,001-3,500 | 2 | - | - | - | 2 | - | - | - | - | 2 |
| 3,501-4,000 | 7 | - | - | - | 7 | - | - | - | - | 7 |
| Over 4,000 | 93 | 62 | - | - | 31 | - | 6 | - | 1 | 86 |
| Totals | 104 | 62 | - | - | 42 | - | 6 | - | 1 | 97 |

${ }^{1} \mathbf{1}$ (Life): Retiree's lifetime; $\mathbf{2}$ (100\%): Beneficiary receives same monthly benefit for life; $\mathbf{3} \mathbf{( 5 0 \% ) : ~ B e n e f i c i a r y ~ r e c e i v e s ~ h a l f ~ t h e ~ m o n t h l y ~ b e n e f i t ~ f o r ~ l i f e ; ~}$ 4 (66\%): Beneficiary receives two-thirds the monthly benefit for life; or $\mathbf{A}$ (Standard): Standard option, $50 \%$ joint and survivor, for eligible spouses
${ }^{2}$ Joint and survivor options are available for post-retirement marriages.
Source: Office of the State Actuary

## Schedules of Average Benefit Payments to Service Retirees

| PERS Plan l |  |  |  |  |  |  |  |  |  |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |

[^25]
## Schedules of Average Benefit Payments to Service Retirees (cont.)

| PERS Plan $\mathbf{2}$ |  |  |  |  |  |  |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |

[^26]
## Schedules of Average Benefit Payments to Service Retirees (cont.)

| PERS Plan 3 |  |  |  |  |  |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |

## Period 7/1/2010 to 6/30/2011

|  | $\$$ | 241.09 | $\$$ | 404.62 | $\$$ | 682.89 | $\$$ | 935.99 | $\$$ | $1,393.48$ | $\$$ |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| Average Monthly Benefit | $\$$ | $4,045.67$ | $\$$ | $3,928.43$ | $\$$ | $4,681.79$ | $\$$ | $4,828.04$ | $\$$ | $5,589.99$ | $\$$ |
| Average Final Salary (Monthly) | 30 |  | 45 |  | 64 |  | 56 |  | 49 |  |  |
| Number of Active Retirees |  | 309.43 |  |  |  |  |  |  |  |  |  |


| Period 7/1/2009 to 6/30/2010 |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Average Monthly Benefit | \$ | 206.96 | \$ | 372.48 | \$ | 650.80 | \$ | 898.92 | \$ | 1,237.32 | \$ | 1,399.82 |
| Average Final Salary (Monthly) | \$ | 3,977.34 | \$ | 3,840.32 | \$ | 4,624.96 | \$ | 4,778.36 | \$ | 5,284.05 | \$ | 5,238.95 |
| Number of Active Retirees |  | 14 |  | 41 |  | 50 |  | 40 |  | 30 |  | 17 |
| Period 7/1/2008 to 6/30/2009 |  |  |  |  |  |  |  |  |  |  |  |  |
| Average Monthly Benefit | \$ | 203.00 | \$ | 370.16 | \$ | 590.03 | \$ | 868.92 | \$ | 1,140.46 | \$ | 959.19 |
| Average Final Salary (Monthly) | \$ | 3,144.81 | \$ | 3,813.15 | \$ | 4,340.40 | \$ | 5,186.33 | \$ | 5,312.97 | \$ | 3,803.49 |
| Number of Active Retirees |  | 22 |  | 39 |  | 40 |  | 38 |  | 32 |  |  |


| Period 7/1/2007 to 6/30/2008 |  |  |  |  |  |  |  |  |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| Average Monthly Benefit | $\$$ | 221.06 | $\$$ | 345.57 | $\$$ | 542.98 | $\$$ | 800.74 | $\$$ | $1,220.33$ |
| Average Final Salary (Monthly) | $\$$ | $3,288.42$ | $\$$ | $4,204.58$ | $\$$ | $4,249.64$ | $\$$ | $4,623.07$ | $\$$ | $5,530.27$ |
| Number of Active Retirees | 23 |  | 32 |  | 44 | $\$$ | - |  |  |  |


| Period 10/1/2006 to 6/30/2007 |  |  |  |  |  |  |  |  |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| Average Monthly Benefit | $\$$ | 248.25 | $\$$ | 355.02 | $\$$ | 492.07 | $\$$ | 825.20 | $\$$ | $1,066.43$ |
| Average Final Salary (Monthly) | $\$$ | $3,227.02$ | $\$$ | $4,094.89$ | $\$$ | $3,994.40$ | $\$$ | $4,749.23$ | $\$$ | $5,518.83$ |
| Number of Active Retirees |  | 9 |  | 24 |  | 34 |  | 25 | - |  |

[^27]
## Schedules of Average Benefit Payments to Service Retirees (cont.)

| SERS Plan 2 |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Retirement Effective Dates ${ }^{1}$ | Years of Credited Service |  |  |  |  |  |  |  |  |  |  |  |
|  |  | 5-10 |  | 11-15 |  | 16-20 |  | 21-25 |  | 26-30 |  | 31+ |
| Period 7/1/2015 to 6/30/2016 |  |  |  |  |  |  |  |  |  |  |  |  |
| Average Monthly Benefit | \$ | 279.35 | \$ | 614.17 | \$ | 868.70 | \$ | 1,042.68 | \$ | 1,530.65 | \$ | 2,284.69 |
| Average Final Salary (Monthly) | \$ | 2,429.88 | \$ | 2,454.73 | \$ | 2,618.60 | \$ | 2,661.27 | \$ | 3,000.84 | \$ | 3,649.45 |
| Number of Active Retirees |  | 189 |  | 126 |  | 192 |  | 192 |  | 113 |  | 57 |
| Period 7/1/2014 to 6/30/2015 |  |  |  |  |  |  |  |  |  |  |  |  |
| Average Monthly Benefit | \$ | 264.55 | \$ | 561.61 | \$ | 847.17 | \$ | 1,037.71 | \$ | 1,567.41 | \$ | 2,214.59 |
| Average Final Salary (Moonthly) | \$ | 2,307.13 | \$ | 2,212.53 | \$ | 2,542.82 | \$ | 2,655.90 | \$ | 3,162.58 | \$ | 3,633.35 |
| Number of Active Retirees |  | 138 |  | 147 |  | 191 |  | 185 |  | 95 |  | 52 |
| Period 7/1/2013 to 6/30/2014 |  |  |  |  |  |  |  |  |  |  |  |  |
| Average Monthly Benefit | \$ | 268.86 | \$ | 551.46 | \$ | 859.70 | \$ | 1,074.79 | \$ | 1,574.79 | \$ | 2,109.51 |
| Average Final Salary (Monthly) | \$ | 2,311.08 | \$ | 2,199.65 | \$ | 2,605.06 | \$ | 2,729.61 | \$ | 3,057.53 | \$ | 3,485.55 |
| Number of Active Retirees |  | 119 |  | 142 |  | 159 |  | 164 |  | 97 |  | 55 |
| Period 7/1/2012 to 6/30/2013 |  |  |  |  |  |  |  |  |  |  |  |  |
| Average Monthly Benefit | \$ | 295.83 | \$ | 547.42 | \$ | 867.06 | \$ | 984.72 | \$ | 1,587.72 | \$ | 2,455.16 |
| Average Final Salary (Monthly) | \$ | 2,552.68 | \$ | 2,277.65 | \$ | 2,634.94 | \$ | 2,549.87 | \$ | 3,178.29 | \$ | 4,042.17 |
| Number of Active Retirees |  | 109 |  | 137 |  | 132 |  | 151 |  | 97 |  | 43 |
| Period 7/1/2011 to 6/30/2012 |  |  |  |  |  |  |  |  |  |  |  |  |
| Average Monthly Benefit | \$ | 277.30 | \$ | 561.49 | \$ | 773.26 | \$ | 1,081.18 | \$ | 1,519.44 | \$ | 2,026.86 |
| Average Final Salary (Monthly) | \$ | 2,044.49 | \$ | 2,295.27 | \$ | 2,292.04 | \$ | 2,755.05 | \$ | 3,061.83 | \$ | 3,424.90 |
| Number of Active Retirees |  | 77 |  | 141 |  | 143 |  | 145 |  | 79 |  | 42 |
| Period 7/1/2010 to 6/30/2011 |  |  |  |  |  |  |  |  |  |  |  |  |
| Average Monthly Benefit | \$ | 325.48 | \$ | 534.80 | \$ | 792.65 | \$ | 980.32 | \$ | 1,455.60 | \$ | 2,150.54 |
| Average Final Salary (Monthly) | \$ | 2,239.23 | \$ | 2,126.03 | \$ | 2,341.99 | \$ | 2,488.89 | \$ | 2,963.79 | \$ | 3,471.57 |
| Number of Active Retirees |  | 83 |  | 105 |  | 135 |  | 95 |  | 75 |  | 22 |
| Period 7/1/2009 to 6/30/2010 |  |  |  |  |  |  |  |  |  |  |  |  |
| Average Monthly Benefit | \$ | 329.64 | \$ | 499.38 | \$ | 697.76 | \$ | 959.01 | \$ | 1,466.33 | \$ | 1,877.92 |
| Average Final Salary (Monthly) | \$ | 2,325.81 | \$ | 2,018.06 | \$ | 2,147.60 | \$ | 2,636.97 | \$ | 2,910.30 | \$ | 3,246.34 |
| Number of Active Retirees |  | 76 |  | 102 |  | 94 |  | 86 |  | 56 |  | 18 |
| Period 7/1/2008 to 6/30/2009 |  |  |  |  |  |  |  |  |  |  |  |  |
| Average Monthly Benefit | \$ | 306.14 | \$ | 490.36 | \$ | 717.17 | \$ | 982.85 | \$ | 1,597.73 | \$ | 2,427.76 |
| Average Final Salary (Monthly) | \$ | 1,974.14 | \$ | 2,020.86 | \$ | 2,133.43 | \$ | 2,542.47 | \$ | 3,044.62 | \$ | 3,936.89 |
| Number of Active Retirees |  | 97 |  | 91 |  | 86 |  | 89 |  | 47 |  | 1 |
| Period 7/1/2007 to 6/30/2008 |  |  |  |  |  |  |  |  |  |  |  |  |
| Average Monthly Benefit | \$ | 264.20 | \$ | 507.62 | \$ | 746.45 | \$ | 894.39 | \$ | 1,357.45 | \$ | - |
| Average Final Salary (Monthly) | \$ | 1,758.78 | \$ | 2,124.83 | \$ | 2,279.37 | \$ | 2,301.53 | \$ | 2,921.83 | \$ | - |
| Number of Active Retirees |  | 93 |  | 86 |  | 98 |  | 99 |  | 39 |  | - |
| Period 10/1/2006 to 6/30/2007 |  |  |  |  |  |  |  |  |  |  |  |  |
| Average Monthly Benefit | \$ | 235.84 | \$ | 463.48 | \$ | 688.93 | \$ | 1,068.36 | \$ | 1,199.69 | \$ | - |
| Average Final Salary (Monthly) | \$ | 1,673.42 | \$ | 1,807.94 | \$ | 2,101.47 | \$ | 2,811.31 | \$ | 2,836.34 | \$ | - |
| Number of Active Retirees |  | 43 |  | 52 |  | 43 |  | 43 |  | 18 |  | - |

[^28]
## Schedules of Average Benefit Payments to Service Retirees (cont.)

| SERS Plan 3 |  |  |  |  |  |  |  |  |  |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |

[^29]
## Schedules of Average Benefit Payments to Service Retirees (cont.)

| PSERS Plan ${ }^{1}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Retirement Effective Dates ${ }^{2}$ | Years of Credited Service |  |  |  |  |  |  |  |  |  |  |  |
|  | 5-10 |  | 11-15 |  | 16-20 |  | 21-25 |  | 26-30 |  | 31+ |  |
| Period 7/1/2015 to 6/30/2016 |  |  |  |  |  |  |  |  |  |  |  |  |
| Average Monthly Benefit | \$ | 887.22 | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - |
| Average Final Salary (Monthly) | \$ | 5,590.67 | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - |
| Number of Active Retirees |  | 27 |  | - |  | - |  | - |  | - |  | - |
| Period 7/1/2014 to 6/30/2015 |  |  |  |  |  |  |  |  |  |  |  |  |
| Average Monthly Benefit | \$ | 668.47 | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - |
| Average Final Salary (Monthly) | \$ | 5,087.53 | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - |
| Number of Active Retirees |  | 17 |  | - |  | - |  | - |  | - |  | - |
| Period 7/1/2013 to 6/30/2014 |  |  |  |  |  |  |  |  |  |  |  |  |
| Average Monthly Benefit | \$ | 666.76 | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - |
| Average Final Salary (Monthly) | \$ | 5,168.06 | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - |
| Number of Active Retirees |  | 15 |  | - |  | - |  | - |  | - |  | - |
| Period 7/1/2012 to 6/30/2013 |  |  |  |  |  |  |  |  |  |  |  |  |
| Average Monthly Benefit | \$ | 510.68 | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - |
| Average Final Salary (Monthly) | \$ | 5,261.25 | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - |
| Number of Active Retirees |  | 16 |  | - |  | - |  | - |  | - |  | - |
| Period 7/1/2011 to 6/30/2012 |  |  |  |  |  |  |  |  |  |  |  |  |
| Average Monthly Benefit | \$ | 339.82 | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - |
| Average Final Salary (Monthly) | \$ | 4,376.32 | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - |
| Number of Active Retirees |  | 9 |  | - |  | - |  | - |  | - |  | - |
| Period 7/1/2010 to 6/30/2011 |  |  |  |  |  |  |  |  |  |  |  |  |
| Average Monthly Benefit | \$ | 324.12 | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - |
| Average Final Salary (Monthly) | \$ | 4,822.01 | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - |
| Number of Active Retirees |  | 6 |  | - |  | - |  | - |  | - |  | - |
| Period 7/1/2009 to 6/30/2010 |  |  |  |  |  |  |  |  |  |  |  |  |
| Average Monthly Benefit | \$ | 271.60 | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - |
| Average Final Salary (Monthly) | \$ | 5,230.39 | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - |
| Number of Active Retirees |  | 3 |  | - |  | - |  | - |  | - |  | - |

${ }^{1}$ PSERS Plan 2 became effective July 1, 2006.
${ }^{2}$ Average monthly benefit and average final salary (monthly) figures include members at retirement who might not be audited. Retirees with missing or invalid data elements were excluded.

Source: Office of the State Actuary

## Schedules of Average Benefit Payments to Service Retirees (cont.)

| TRS Plan 1 |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Retirement Effective Dates ${ }^{1}$ | Years of Credited Service |  |  |  |  |  |  |  |  |  |  |  |
|  | 5-10 |  | 11-15 |  | 16-20 |  | 21-25 |  | 26-30 |  | 31+ |  |
| Period 7/1/2015 to 6/30/2016 |  |  |  |  |  |  |  |  |  |  |  |  |
| Average Monthly Benefit | \$ | 660.74 | \$ | 1,423.73 | \$ | 1,748.99 | \$ | 2,670.86 | \$ | 3,299.09 | \$ | 3,835.48 |
| Average Final Salary (Monthly) | \$ | 3,085.66 | \$ | 5,458.84 | \$ | 5,334.95 | \$ | 6,354.70 | \$ | 6,423.42 | \$ | 6,919.97 |
| Number of Active Retirees |  | 36 |  | 28 |  | 31 |  | 50 |  | 58 |  | 242 |
| Period 7/1/2014 to 6/30/2015 |  |  |  |  |  |  |  |  |  |  |  |  |
| Average Monthly Benefit | \$ | 647.12 | \$ | 1,092.42 | \$ | 1,893.48 | \$ | 2,623.54 | \$ | 3,228.70 | \$ | 3,801.44 |
| Average Final Salary (Monthly) | \$ | 3,099.63 | \$ | 3,884.19 | \$ | 5,272.62 | \$ | 6,078.62 | \$ | 6,375.43 | \$ | 6,776.52 |
| Number of Active Retirees |  | 38 |  | 28 |  | 41 |  | 76 |  | 67 |  | 286 |
| Period 7/1/2013 to 6/30/2014 |  |  |  |  |  |  |  |  |  |  |  |  |
| Average Monthly Benefit | \$ | 509.01 | \$ | 1,156.89 | \$ | 1,984.68 | \$ | 2,661.17 | \$ | 3,231.48 | \$ | 3,794.79 |
| Average Final Salary (Monthly) | \$ | 3,485.83 | \$ | 4,498.77 | \$ | 5,693.54 | \$ | 6,148.49 | \$ | 6,303.26 | \$ | 6,705.36 |
| Number of Active Retirees |  | 38 |  | 36 |  | 37 |  | 89 |  | 125 |  | 317 |
| Period 7/1/2012 to 6/30/2013 |  |  |  |  |  |  |  |  |  |  |  |  |
| Average Monthly Benefit | \$ | 470.00 | \$ | 1,123.24 | \$ | 1,894.30 | \$ | 2,644.85 | \$ | 3,539.29 | \$ | 3,775.79 |
| Average Final Salary (Monthly) | \$ | 3,065.75 | \$ | 4,277.86 | \$ | 5,538.86 | \$ | 6,107.19 | \$ | 6,783.63 | \$ | 6,667.23 |
| Number of Active Retirees |  | 59 |  | 51 |  | 61 |  | 94 |  | 102 |  | 350 |
| Period 7/1/2011 to 6/30/2012 |  |  |  |  |  |  |  |  |  |  |  |  |
| Average Monthly Benefit | \$ | 536.53 | \$ | 1,127.71 | \$ | 1,649.43 | \$ | 2,643.64 | \$ | 3,191.03 | \$ | 3,629.98 |
| Average Final Salary (Monthly) | \$ | 3,395.33 | \$ | 4,447.26 | \$ | 5,174.59 | \$ | 5,944.53 | \$ | 6,243.29 | \$ | 6,622.17 |
| Number of Active Retirees |  | 60 |  | 50 |  | 69 |  | 122 |  | 134 |  | 406 |

## Period 7/1/2010 to 6/30/2011

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| Average Monthly Benefit | $\$$ | 438.41 | $\$$ | 977.55 | $\$$ | $1,754.50$ | $\$$ | $2,556.44$ | $\$$ | $3,356.41$ | $\$$ | $3,665.13$ |
| Average Final Salary (Monthly) | $\$$ | $2,703.33$ | $\$$ | $3,893.89$ | $\$$ | $5,064.15$ | $\$$ | $5,972.05$ | $\$$ | $6,503.81$ | $\$$ | $6,557.94$ |
| Number of Active Retirees |  | 63 |  | 63 |  | 82 |  | 143 |  | 165 | 475 |  |


| Period 7/1/2009 to 6/30/2010 |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Average Monthly Benefit | \$ | 438.54 | \$ | 989.00 | \$ | 1,631.06 | \$ | 2,361.44 | \$ | 3,124.49 | \$ | 3,493.23 |
| Average Final Salary (Monthly) | \$ | 3,228.12 | \$ | 3,923.42 | \$ | 4,939.54 | \$ | 5,582.54 | \$ | 6,092.38 | \$ | 6,401.14 |
| Number of Active Retirees |  | 74 |  | 56 |  | 72 |  | 128 |  | 132 |  | 330 |

Period 7/1/2008 to 6/30/2009

| Average Monthly Benefit | \$ | 453.06 | \$ | 1,006.59 | \$ | 1,618.97 | \$ | 2,354.28 | \$ | 2,904.77 | \$ | 3,314.77 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Average Final Salary (Monthly) | \$ | 3,243.52 | \$ | 4,073.33 | \$ | 5,030.12 | \$ | 5,709.31 | \$ | 5,870.41 | \$ | 6,261.55 |
| Number of Active Retirees |  | 66 |  | 69 |  | 90 |  | 164 |  | 176 |  | 443 |
| Period 7/1/2007 to 6/30/2008 |  |  |  |  |  |  |  |  |  |  |  |  |
| Average Monthly Benefit | \$ | 418.90 | \$ | 1,013.91 | \$ | 1,591.61 | \$ | 2,227.52 | \$ | 2,928.20 | \$ | 2,893.41 |
| Average Final Salary (Monthly) | \$ | 2,808.31 | \$ | 4,134.13 | \$ | 4,821.23 | \$ | 5,317.30 | \$ | 5,904.30 | \$ | 5,809.84 |
| Number of Active Retirees |  | 66 |  | 57 |  | 114 |  | 192 |  | 408 |  | 531 |


| Period 10/1/2006 to $\mathbf{6 / 3 0 / 2 0 0 7}$ |  |  |  |  |  |  |  |  |  |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| Average Monthly Benefit | $\$$ | 348.74 | $\$$ | 839.10 | $\$$ | $1,321.85$ | $\$$ | $1,820.11$ | $\$$ | $2,848.13$ | $\$$ |
| $2,588.78$ |  |  |  |  |  |  |  |  |  |  |  |
| Average Final Salary (Monthly) | $\$$ | $2,641.07$ | $\$$ | $3,364.49$ | $\$$ | $4,122.54$ | $\$$ | $4,444.75$ | $\$$ | $5,736.18$ | $\$$ |
| Number of Active Retirees |  | 39 |  | 35 |  | 45 |  | 40 |  | 55 |  |

[^30]
## Schedules of Average Benefit Payments to Service Retirees (cont.)

| TRS Plan $\mathbf{2}$ |  |  |  |  |  |  |  |
| :--- | ---: | ---: | :--- | ---: | :--- | ---: | :--- | ---: | :--- |

Period 10/1/2006 to 6/30/2007

|  | $\$$ | 375.95 | $\$$ | 970.16 | $\$$ | $1,585.44$ | $\$$ | $1,911.48$ | $\$$ | $2,622.91$ | $\$$ |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| Average Monthly Benefit | $\$$ | $3,634.96$ | $\$$ | $4,054.58$ | $\$$ | $4,891.30$ | $\$$ | $5,337.42$ | $\$$ | $5,601.05$ | $\$$ |
| Average Final Salary (Monthly) |  | 24 |  | 28 |  | 20 |  | 16 |  | - |  |
| Number of Active Retirees |  |  |  |  |  |  |  |  |  |  |  |

[^31]
## Schedules of Average Benefit Payments to Service Retirees (cont.)

| TRS Plan 3 |  |  |  |  |  |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |

## Period 10/1/2006 to 6/30/2007

|  | $\$$ | 254.63 | $\$$ | 452.49 | $\$$ | 712.80 | $\$$ | $1,061.00$ | $\$$ | $1,243.51$ |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| Average Monthly Benefit | $\$$ | $4,146.59$ | $\$$ | $4,575.87$ | $\$$ | $4,909.18$ | $\$$ | $5,447.02$ | $\$$ | $5,750.52$ |
| Average Final Salary (Monthly) |  | 19 |  | 22 |  | 24 |  | 22 | - |  |
| Number of Active Retirees |  |  |  |  |  |  |  |  |  |  |

[^32]
## Schedules of Average Benefit Payments to Service Retirees (cont.)

## LEOFF Plan 1

| Retirement Effective Dates ${ }^{1}$ | Years of Credited Service |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 5-10 |  | 11-15 |  | 16-20 |  | 21-25 |  | 26-30 |  | 31+ |  |
| Period 7/1/2015 to 6/30/2016 |  |  |  |  |  |  |  |  |  |  |  |  |
| Average Monthly Benefit | \$ | - | \$ | - | \$ | - | \$ | - | \$ | 5,469.87 | \$ | 8,201.17 |
| Average Final Salary (Monthly) | \$ | - | \$ | - | \$ | - | \$ | - | \$ | 8,204.76 | \$ | 9,650.11 |
| Number of Active Retirees |  | - |  | - |  | - |  | - |  | 1 |  | 19 |
| Period 7/1/2014 to 6/30/2015 |  |  |  |  |  |  |  |  |  |  |  |  |
| Average Monthly Benefit | \$ | - | \$ | - | \$ | - | \$ | - | \$ | 3,891.00 | \$ | 8,081.82 |
| Average Final Salary (Monthly) | \$ | - | \$ | - | \$ | - | \$ | - | \$ | 6,708.00 | \$ | 9,859.16 |
| Number of Active Retirees |  | - |  | - |  | - |  | - |  | 1 |  | 40 |


| Period 7/1/2013 to 6/30/2014 |  |  |  |  |  |  |  |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Average Monthly Benefit | $\$$ | - | $\$$ | - | $\$$ | - | $\$$ | - | $\$$ | $3,690.00$ | $\$$ |


| Period 7/1/2011 to 6/30/2012 |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Average Monthly Benefit | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | 6,776.58 |
| Average Final Salary (Monthly) | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | 8,906.14 |
| Number of Active Retirees |  |  |  |  |  |  |  |  |  |  |  | 63 |
| Period 7/1/2010 to 6/30/2011 |  |  |  |  |  |  |  |  |  |  |  |  |
| Average Monthly Benefit | \$ | - | \$ | 2,608.42 | \$ | - | \$ | - | \$ | 3,770.38 | \$ | 6,799.27 |
| Average Final Salary (Monthly) | \$ | - | \$ | 12,347.54 | \$ | - | \$ | - | \$ | 6,693.02 | \$ | 9,117.73 |
| Number of Active Retirees |  | - |  | 1 |  | - |  | - |  | 1 |  | 49 |
| Period 7/1/2009 to 6/30/2010 |  |  |  |  |  |  |  |  |  |  |  |  |
| Average Monthly Benefit | \$ | - | \$ | - | \$ | - | \$ | - | \$ | 5,846.14 | \$ | 6,727.58 |
| Average Final Salary (Monthly) | \$ | - | \$ | - | \$ | - | \$ | - | \$ | 9,964.96 | \$ | 9,156.08 |
| Number of Active Retirees |  | - |  | - |  | - |  | - |  | 1 |  | 56 |
| Period 7/1/2008 to 6/30/2009 |  |  |  |  |  |  |  |  |  |  |  |  |
| Average Monthly Benefit | \$ | - | \$ | - | \$ | - | \$ | - | \$ | 8,876.88 | \$ | 5,773.59 |
| Average Final Salary (Monthly) | \$ | - | \$ | - | \$ | - | \$ | - | \$ | 13,656.74 | \$ | 8,293.04 |
| Number of Active Retirees |  | - |  | - |  | - |  | - |  | 1 |  | 67 |
| Period 7/1/2007 to 6/30/2008 |  |  |  |  |  |  |  |  |  |  |  |  |
| Average Monthly Benefit | \$ | - | \$ | 737.71 | \$ | - | \$ | 4,083.42 | \$ | 3,717.62 | \$ | 5,275.22 |
| Average Final Salary (Monthly) | \$ | - | \$ | 2,147.00 | \$ | - | \$ | 8,695.00 | \$ | 6,687.05 | \$ | 7,715.25 |
| Number of Active Retirees |  | - |  | 1 |  | - |  | 2 |  | 9 |  | 85 |
| Period 10/1/2006 to 6/30/2007 |  |  |  |  |  |  |  |  |  |  |  |  |
| Average Monthly Benefit | \$ | - | \$ | 1,086.00 | \$ | - | \$ | - | \$ | 3,785.27 | \$ | 5,086.57 |
| Average Final Salary (Monthly) | \$ | - | \$ | 5,204.00 | \$ | - | \$ | - | \$ | 6,727.37 | \$ | 7,548.05 |
| Number of Active Retirees |  | - |  | 1 |  | - |  | - |  | 20 |  | 63 |

[^33]
## Schedules of Average Benefit Payments to Service Retirees (cont.)

## LEOFF Plan 2

| Retirement Effective Dates ${ }^{1}$ | Years of Credited Service |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 5-10 |  | 11-15 |  | 16-20 |  | 21-25 |  | 26-30 |  | 31+ |
| Period 7/1/2015 to 6/30/2016 |  |  |  |  |  |  |  |  |  |  |  |  |
| Average Monthly Benefit | \$ | 758.78 | \$ | 1,616.33 | \$ | 2,564.02 | \$ | 3,865.95 | \$ | 4,902.78 | \$ | 6,347.89 |
| Average Final Salary (Monthly) | \$ | 5,915.24 | \$ | 6,911.12 | \$ | 7,401.28 | \$ | 8,542.15 | \$ | 9,038.72 | \$ | 9,929.16 |
| Number of Active Retirees |  | 22 |  | 32 |  | 41 |  | 100 |  | 152 |  | 176 |
| Period 7/1/2014 to 6/30/2015 |  |  |  |  |  |  |  |  |  |  |  |  |
| Average Monthly Benefit | \$ | 887.31 | \$ | 1,696.16 | \$ | 2,488.40 | \$ | 3,750.72 | \$ | 4,733.82 | \$ | 5,936.02 |
| Average Final Salary (Monthly) | \$ | 6,230.50 | \$ | 6,686.77 | \$ | 7,183.01 | \$ | 8,294.40 | \$ | 8,604.70 | \$ | 9,482.73 |
| Number of Active Retirees |  | 17 |  | 18 |  | 49 |  | 95 |  | 118 |  | 155 |
| Period 7/1/2013 to 6/30/2014 |  |  |  |  |  |  |  |  |  |  |  |  |
| Average Monthly Benefit | \$ | 803.11 | \$ | 1,600.48 | \$ | 2,477.29 | \$ | 3,531.18 | \$ | 4,758.98 | \$ | 5,607.91 |
| Average Final Salary (Monthly) | \$ | 6,199.64 | \$ | 6,603.23 | \$ | 7,405.91 | \$ | 7,967.27 | \$ | 8,837.62 | \$ | 9,087.48 |
| Number of Active Retirees |  | 27 |  | 18 |  | 30 |  | 107 |  | 100 |  | 149 |
| Period 7/1/2012 to 6/30/2013 |  |  |  |  |  |  |  |  |  |  |  |  |
| Average Monthly Benefit | \$ | 751.29 | \$ | 1,612.33 | \$ | 2,510.38 | \$ | 3,404.26 | \$ | 4,547.01 | \$ | 5,529.49 |
| Average Final Salary (Monthly) | \$ | 5,948.81 | \$ | 6,336.73 | \$ | 7,145.42 | \$ | 7,691.69 | \$ | 8,400.58 | \$ | 9,100.80 |
| Number of Active Retirees |  | 27 |  | 25 |  | 32 |  | 63 |  | 123 |  | 132 |
| Period 7/1/2011 to 6/30/2012 |  |  |  |  |  |  |  |  |  |  |  |  |
| Average Monthly Benefit | \$ | 918.50 | \$ | 1,913.13 | \$ | 2,270.71 | \$ | 3,261.72 | \$ | 4,377.04 | \$ | 5,398.33 |
| Average Final Salary (Monthly) | \$ | 5,730.21 | \$ | 7,272.37 | \$ | 6,685.73 | \$ | 7,510.37 | \$ | 8,172.98 | \$ | 8,963.58 |
| Number of Active Retirees |  | 21 |  | 17 |  | 30 |  | 61 |  | 82 |  | 112 |

Period 7/1/2010 to 6/30/2011

|  | $\$$ | 786.80 | $\$$ | $1,346.38$ | $\$$ | $2,628.43$ | $\$$ | $3,229.83$ | $\$$ | $4,442.23$ | $\$$ |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| Average Monthly Benefit | $\$$ | $6,436.60$ | $\$$ | $5,505.96$ | $\$$ | $7,191.87$ | $\$$ | $7,200.29$ | $\$$ | $8,131.03$ | $\$$ |
| Average Final Salary (Monthly) | 21 |  | 17 |  | 31 | $8,349.92$ |  |  |  |  |  |
| Number of Active Retirees |  | 21 |  | 71 |  | 104 | 73 |  |  |  |  |


| Period 7/1/2009 to 6/30/2010 |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Average Monthly Benefit | \$ | 802.80 | \$ | 1,430.37 | \$ | 2,176.26 | \$ | 2,935.73 | \$ | 4,107.79 | \$ | 4,329.19 |
| Average Final Salary (Monthly) | \$ | 5,885.87 | \$ | 5,662.91 | \$ | 6,203.07 | \$ | 6,911.64 | \$ | 7,594.47 | \$ | 7,264.63 |
| Number of Active Retirees |  | 24 |  | 17 |  | 21 |  | 43 |  | 99 |  | 33 |
| Period 7/1/2008 to 6/30/2009 |  |  |  |  |  |  |  |  |  |  |  |  |
| Average Monthly Benefit | \$ | 826.57 | \$ | 1,481.13 | \$ | 2,064.59 | \$ | 2,981.51 | \$ | 3,846.34 | \$ | 4,459.60 |
| Average Final Salary (Monthly) | \$ | 6,372.71 | \$ | 5,884.19 | \$ | 5,940.37 | \$ | 6,704.73 | \$ | 7,298.28 | \$ | 7,742.83 |
| Number of Active Retirees |  | 15 |  | 17 |  | 29 |  | 42 |  | 83 |  | 13 |


| Period 7/1/2007 to 6/30/2008 |  |  |  |  |  |  |  |  |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| Average Monthly Benefit | $\$$ | 782.60 | $\$$ | $1,146.25$ | $\$$ | $2,063.68$ | $\$$ | $2,806.54$ | $\$$ | $3,455.45$ |
| Average Final Salary (Monthly) | $\$$ | $5,913.15$ | $\$$ | $5,141.47$ | $\$$ | $6,100.96$ | $\$$ | $6,573.92$ | $\$$ | $6,853.86$ |
| Number of Active Retirees | 16 |  | 18 |  | 26 | $\$$ | - |  |  |  |


| Period 10/1/2006 to $\mathbf{6 / 3 0 / 2 0 0 7}$ |  |  |  |  |  |  |  |  |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| Average Monthly Benefit | $\$$ | 730.74 | $\$$ | $1,419.11$ | $\$$ | $2,036.97$ | $\$$ | $2,944.90$ | $\$$ | $3,301.90$ |
| Average Final Salary (Monthly) | $\$$ | $5,214.92$ | $\$$ | $5,723.21$ | $\$$ | $6,063.32$ | $\$$ | $6,574.48$ | $\$$ | $6,490.35$ |
| Number of Active Retirees | 10 |  | 15 |  | 24 |  | $6,326.98$ |  |  |  |

[^34]
## Schedules of Average Benefit Payments to Service Retirees (cont.)

| WSPRS Plan 1 |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Retirement Effective Dates ${ }^{1}$ | Years of Credited Service |  |  |  |  |  |  |  |  |  |  |  |
|  | 5-10 |  | 11-15 |  | 16-20 |  | 21-25 |  | 26-30 |  | 31+ |  |
| Period 7/1/2015 to 6/30/2016 |  |  |  |  |  |  |  |  |  |  |  |  |
| Average Monthly Benefit | \$ | 1,057.39 | \$ | 1,949.09 | \$ | 3,951.29 | \$ | 4,285.84 | \$ | 4,956.68 | \$ | 5,609.04 |
| Average Final Salary (Monthly) | \$ | 5,325.53 | \$ | 6,460.99 | \$ | 7,333.01 | \$ | 8,608.50 | \$ | 8,623.81 | \$ | 8,319.79 |
| Number of Active Retirees |  | 1 |  | 1 |  | 4 |  | 15 |  | 29 |  | 6 |
| Period 7/1/2014 to 6/30/2015 |  |  |  |  |  |  |  |  |  |  |  |  |
| Average Monthly Benefit | \$ | 515.10 | \$ | 1,616.68 | \$ | 3,108.68 | \$ | 4,153.86 | \$ | 4,386.37 | \$ | 4,883.71 |
| Average Final Salary (Monthly) | \$ | 6,961.40 | \$ | 6,969.05 | \$ | 7,161.79 | \$ | 8,328.60 | \$ | 8,007.96 | \$ | 7,820.79 |
| Number of Active Retirees |  | 1 |  | 2 |  | 2 |  | 16 |  | 24 |  | 3 |
| Period 7/1/2013 to 6/30/2014 |  |  |  |  |  |  |  |  |  |  |  |  |
| Average Monthly Benefit | \$ | - | \$ | 2,075.14 | \$ | 2,290.15 | \$ | 3,490.49 | \$ | 4,335.50 | \$ | 4,441.61 |
| Average Final Salary (Monthly) | \$ | - | \$ | 5,791.02 | \$ | 4,655.27 | \$ | 7,110.57 | \$ | 7,755.76 | \$ | 7,017.09 |
| Number of Active Retirees |  | - |  | 1 |  | 1 |  | 14 |  | 20 |  | 4 |
| Period 7/1/2012 to 6/30/2013 |  |  |  |  |  |  |  |  |  |  |  |  |
| Average Monthly Benefit | \$ | - | \$ | 1,946.46 | \$ | 3,228.52 | \$ | 3,916.57 | \$ | 4,033.93 | \$ | 5,808.61 |
| Average Final Salary (Monthly) | \$ | - | \$ | 7,447.17 | \$ | 9,971.82 | \$ | 8,046.79 | \$ | 7,561.30 | \$ | 8,363.83 |
| Number of Active Retirees |  | - |  | 2 |  | 2 |  | 12 |  | 30 |  | 9 |
| Period 7/1/2011 to 6/30/2012 |  |  |  |  |  |  |  |  |  |  |  |  |
| Average Monthly Benefit | \$ | 332.19 | \$ | 1,371.65 | \$ | 1,641.71 | \$ | 4,047.82 | \$ | 4,524.91 | \$ | 3,944.59 |
| Average Final Salary (Monthly) | \$ | 4,280.74 | \$ | 5,911.76 | \$ | 5,475.29 | \$ | 7,926.38 | \$ | 8,487.26 | \$ | 6,294.76 |
| Number of Active Retirees |  | 1 |  | 2 |  | 2 |  | 19 |  | 20 |  | 3 |
| Period 7/1/2010 to 6/30/2011 |  |  |  |  |  |  |  |  |  |  |  |  |
| Average Monthly Benefit | \$ | - | \$ | - | \$ | 1,300.91 | \$ | 3,981.43 | \$ | 4,307.44 | \$ | 3,807.43 |
| Average Final Salary (Monthly) | \$ | - | \$ | - | \$ | 5,279.73 | \$ | 7,767.77 | \$ | 7,696.70 | \$ | 6,534.53 |
| Number of Active Retirees |  | - |  | - |  | 1 |  | 14 |  | 20 |  | 1 |
| Period 7/1/2009 to 6/30/2010 |  |  |  |  |  |  |  |  |  |  |  |  |
| Average Monthly Benefit | \$ | - | \$ | - | \$ | - | \$ | 3,603.10 | \$ | 5,653.44 | \$ | 5,437.71 |
| Average Final Salary (Monthly) | \$ | - | \$ | - | \$ | - | \$ | 7,241.18 | \$ | 9,302.30 | \$ | 8,000.30 |
| Number of Active Retirees |  | - |  | - |  | - |  | 9 |  | 10 |  | 3 |
| Period 7/1/2008 to 6/30/2009 |  |  |  |  |  |  |  |  |  |  |  |  |
| Average Monthly Benefit | \$ | - | \$ | - | \$ | - | \$ | 3,205.87 | \$ | 3,984.48 | \$ | 5,748.34 |
| Average Final Salary (Monthly) | \$ | - | \$ | - | \$ | - | \$ | 6,495.52 | \$ | 7,139.94 | \$ | 8,014.31 |
| Number of Active Retirees |  | - |  | - |  | - |  | 2 |  | 7 |  | 3 |
| Period 7/1/2007 to 6/30/2008 |  |  |  |  |  |  |  |  |  |  |  |  |
| Average Monthly Benefit | \$ | 395.27 | \$ | - | \$ | - | \$ | 3,166.53 | \$ | 4,129.05 | \$ | 4,313.40 |
| Average Final Salary (Monthly) | \$ | 5,784.65 | \$ | - | \$ | - | \$ | 6,685.85 | \$ | 7,573.82 | \$ | 6,621.25 |
| Number of Active Retirees |  | 1 |  | - |  | - |  | 5 |  | 6 |  | 6 |
| Period 10/1/2006 to 6/30/2007 |  |  |  |  |  |  |  |  |  |  |  |  |
| Average Monthly Benefit | \$ | - | \$ | 1,385.52 | \$ | 2,000.54 | \$ | - | \$ | 3,887.12 | \$ | 4,422.67 |
| Average Final Salary (Monthly) | \$ | - | \$ | 5,980.57 | \$ | 5,755.62 | \$ | - | \$ | 7,254.30 | \$ | 6,698.61 |
| Number of Active Retirees |  | - |  | 1 |  | 1 |  | - |  | 5 |  | 6 |

[^35]
## Schedules of Average Benefit Payments to Service Retirees (cont.)

| JRS |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Retirement Effective Dates ${ }^{1}$ | Years of Credited Service |  |  |  |  |  |  |  |  |  |  |  |
|  |  | 5-10 |  | 11-15 |  | 16-20 |  | 21-25 |  | 26-30 |  | 31+ |
| Period 7/1/2015 to 6/30/2016 |  |  |  |  |  |  |  |  |  |  |  |  |
| Average Monthly Benefit | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - |
| Average Final Salary (Monthly) | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - |
| Number of Active Retirees |  | - |  | - |  | - |  | - |  | - |  | - |
| Period 7/1/2014 to 6/30/2015 |  |  |  |  |  |  |  |  |  |  |  |  |
| Average Monthly Benefit | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - |
| Average Final Salary (Monthly) | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - |
| Number of Active Retirees |  | - |  | - |  | - |  | - |  | - |  | - |
| Period 7/1/2013 to 6/30/2014 |  |  |  |  |  |  |  |  |  |  |  |  |
| Average Monthly Benefit | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - |
| Average Final Salary (Monthly) | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - |
| Number of Active Retirees |  | - |  | - |  | - |  | - |  | - |  | - |
| Period 7/1/2012 to 6/30/2013 |  |  |  |  |  |  |  |  |  |  |  |  |
| Average Monthly Benefit | \$ | - | \$ | - | \$ | - | \$ | - | \$ | 9,302.01 | \$ | - |
| Average Final Salary (Monthly) | \$ | - | \$ | - | \$ | - | \$ | - | \$ | 12,402.68 | \$ | - |
| Number of Active Retirees |  | - |  | - |  | - |  | - |  | 2 |  | - |
| Period 7/1/2011 to 6/30/2012 |  |  |  |  |  |  |  |  |  |  |  |  |
| Average Monthly Benefit | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | 10,263.81 |
| Average Final Salary (Monthly) | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | 13,685.08 |
| Number of Active Retirees |  | - |  | - |  | - |  | - |  | - |  | 1 |
| Period 7/1/2010 to 6/30/2011 |  |  |  |  |  |  |  |  |  |  |  |  |
| Average Monthly Benefit | \$ | - | \$ | - | \$ | - | \$ | - | \$ | 7,376.49 | \$ | 9,302.01 |
| Average Final Salary (Monthly) | \$ | - | \$ | - | \$ | - | \$ | - | \$ | 12,402.68 | \$ | 12,402.68 |
| Number of Active Retirees |  | - |  | - |  | - |  | - |  | 1 |  | 1 |
| Period 7/1/2009 to 6/30/2010 |  |  |  |  |  |  |  |  |  |  |  |  |
| Average Monthly Benefit | \$ | - | \$ | - | \$ | - | \$ | 7,904.34 | \$ | 8,292.69 | \$ | 9,770.51 |
| Average Final Salary (Monthly) | \$ | - | \$ | - | \$ | - | \$ | 13,027.34 | \$ | 12,402.60 | \$ | 13,027.34 |
| Number of Active Retirees |  | - |  | - |  | - |  | 1 |  | 2 |  | 1 |
| Period 7/1/2008 to 6/30/2009 |  |  |  |  |  |  |  |  |  |  |  |  |
| Average Monthly Benefit | \$ | - | \$ | - | \$ | 5,286.59 | \$ | 9,301.95 | \$ | - | \$ | - |
| Average Final Salary (Monthly) | \$ | - | \$ | - | \$ | 10,367.60 | \$ | 12,402.60 | \$ | - | \$ | - |
| Number of Active Retirees |  | - |  | - |  | 1 |  | 1 |  | - |  | - |
| Period 7/1/2007 to 6/30/2008 |  |  |  |  |  |  |  |  |  |  |  |  |
| Average Monthly Benefit | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | 9,255.00 |
| Average Final Salary (Monthly) | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | 12,340.00 |
| Number of Active Retirees |  | - |  | - |  | - |  | - |  | - |  | 1 |
| Period 10/1/2006 to 6/30/2007 |  |  |  |  |  |  |  |  |  |  |  |  |
| Average Monthly Benefit | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - |
| Average Final Salary (Monthly) | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - |
| Number of Active Retirees |  | - |  | - |  | - |  | - |  | - |  | - |

[^36]

Schedules of Benefit Expenses and Refunds by Type (cont.)



| SERS Plan 3 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| For the Years Ended 2008-2017 - Dollars in Thousands |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 6/30/2017 |  | 6/30/2016 |  | 6/30/2015 |  | 6/30/2014 |  | 6/30/2013 |  | 6/30/2012 |  | 6/30/2011 |  | 6/30/2010 |  | 6/30/2009 |  | 6/30/2008 |  |
| Benefit Expenses |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Service | \$ | 4,055 | \$ | 2,354 | \$ | 1,526 | \$ | 854 | \$ | 464 | \$ | 302 | \$ | 182 | \$ | 91 | \$ | 62 | \$ | 8 |
| Disability |  | - |  | - |  | - |  | - |  | - |  | - |  | - |  | - |  | - |  | - |
| Survivor |  | - |  | - |  | - |  | - |  | - |  | - |  | - |  | - |  | - |  | - |
| Refunds |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Separation |  | 85,577 |  | 78,843 |  | 84,767 |  | 72,972 |  | 65,643 |  | 60,929 |  | 51,431 |  | 31,383 |  | 40,501 |  | 39,438 |
| Death |  | - |  | - |  | - |  | - |  | - |  | - |  | 1,811 |  | 2,533 |  | 1,540 |  | 377 |
| Total | \$ | 89,632 | \$ | 81,197 | \$ | 86,293 | \$ | 73,826 | \$ | 66,107 | \$ | 61,231 | \$ | 53,424 | \$ | 34,007 | \$ | 42,103 | \$ | 39,823 |



Schedules of Benefit Expenses and Refunds by Type (cont.)


## TRS Plan 2/3

For the Years Ended 2008-2017 — Dollars in Thousands

|  | 6/30/2017 |  | 6/30/2016 |  | 6/30/2015 |  | 6/30/2014 |  | 6/30/2013 |  | 6/30/2012 |  | 6/30/2011 |  | 6/30/2010 |  | 6/30/2009 |  | 6/30/2008 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Benefit Expenses |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Service | \$ | 247,080 | \$ | 211,967 | \$ | 177,689 | \$ | 144,464 | \$ | 112,521 | \$ | 87,707 | \$ | 68,782 | \$ | 52,921 | \$ | 42,587 | \$ | 33,984 |
| Disability |  | 2,547 |  | 1,145 |  | 1,176 |  | 1,126 |  | 1,117 |  | 1,071 |  | 1,118 |  | 921 |  | 838 |  | 882 |
| Survivor |  | 5,094 |  | 4,899 |  | 4,347 |  | 3,932 |  | 3,024 |  | 2,622 |  | 2,238 |  | 1,812 |  | 1,370 |  | 1,150 |
| Refunds |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Separation |  | 2,348 |  | 2,409 |  | 2,401 |  | 1,460 |  | 2,115 |  | 1,652 |  | 1,584 |  | 2,092 |  | 1,423 |  | 1,712 |
| Death |  | 662 |  | 562 |  | 439 |  | 528 |  | 799 |  | 517 |  | 697 |  | 776 |  | 766 |  | 478 |
| Total | \$ | 257,731 | \$ | 220,982 | \$ | 186,052 | \$ | 151,510 | \$ | 119,576 | \$ | 93,569 | \$ | 74,419 | \$ | 58,522 | \$ | 46,984 | \$ | 38,206 |

£ Schedules of Benefit Expenses and Refunds by Type (cont.)

| TRS Plan 3 <br> For the Years Ended 2008-2017 — Dollars in Thousands |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | /30/2017 |  | 6/30/2016 |  | 6/30/2015 |  | 6/30/2014 |  | 6/30/2013 |  | 6/30/2012 |  | 6/30/2011 |  | 6/30/2010 |  | 6/30/2009 |  | 6/30/2008 |
| Benefit Expenses |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Service | \$ | 14,687 | \$ | 9,146 | \$ | 5,924 | \$ | 3,084 | \$ | 1,569 | \$ | 1,149 | \$ | 542 | \$ | 257 | \$ | 128 | \$ | 45 |
| Disability |  | - |  | - |  | - |  | - |  | - |  | - |  | - |  | - |  | - |  | - |
| Survivor |  | - |  | - |  | - |  | - |  | - |  | - |  | - |  | - |  | - |  | - |
| Refunds |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Separation |  | 285,910 |  | 272,792 |  | 263,454 |  | 232,551 |  | 176,052 |  | 150,404 |  | 110,425 |  | 67,158 |  | 74,586 |  | 82,756 |
| Death |  | - |  | - |  | - |  | - |  | - |  | - |  | 5,146 |  | 4,507 |  | 1,580 |  | 2,020 |
| Total | \$ | 300,597 | \$ | 281,938 | \$ | 269,378 | \$ | 235,635 | \$ | 177,621 | \$ | 151,553 | \$ | 116,113 | \$ | 71,922 | \$ | 76,294 | \$ | 84,821 |
| LEOFF Plan 1 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | /30/2017 |  | 6/30/2016 |  | 6/30/2015 |  | 6/30/2014 |  | 6/30/2013 |  | 6/30/2012 |  | 6/30/2011 |  | 6/30/2010 |  | 6/30/2009 |  | 6/30/2008 |
| Benefit Expenses |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Service | \$ | 151,225 | \$ | 149,411 | \$ | 147,957 | \$ | 146,285 | \$ | 143,906 | \$ | 138,884 | \$ | 134,321 | \$ | 132,450 | \$ | 126,562 | \$ | 119,464 |
| Disability |  | 136,823 |  | 141,526 |  | 143,951 |  | 145,666 |  | 146,643 |  | 146,207 |  | 147,653 |  | 150,521 |  | 148,846 |  | 145,795 |
| Survivor |  | 72,012 |  | 69,547 |  | 66,503 |  | 63,789 |  | 61,247 |  | 58,347 |  | 56,801 |  | 55,260 |  | 51,625 |  | 48,271 |
| Refunds |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Separation |  | - |  | 440 |  | 330 |  | 248 |  | 14 |  | 4 |  | 48 |  | 11 |  | 43 |  | - |
| Death |  | 8 |  | - |  | 4 |  | - |  | - |  | 431 |  | - |  | 3 |  | 150 |  | 150 |
| Total | \$ | 360,068 | \$ | 360,924 | \$ | 358,745 | \$ | 355,988 | \$ | 351,810 | \$ | 343,873 | \$ | 338,823 | \$ | 338,245 | \$ | 327,226 | \$ | 313,680 |

Schedules of Benefit Expenses and Refunds by Type (cont.)


§ Schedules of Benefit Expenses and Refunds by Type (cont.)


Schedules of Benefit Expenses and Refunds by Type (cont.)

| JRF |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| For the Years Ended 2008-2017 - Dollars in Thousands |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 6/30/2017 |  | 6/30/2016 |  | 6/30/2015 |  | 6/30/2014 |  | 6/30/2013 |  | 6/30/2012 |  | 6/30/2011 |  | 6/30/2010 |  | 6/30/2009 |  | 6/30/2008 |  |
| Benefit Expenses |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Service | \$ | 265 | \$ | 347 | \$ | 346 | \$ | 346 | \$ | 402 | \$ | 421 | \$ | 420 | \$ | 421 | \$ | 422 | \$ | 466 |
| Disability |  | - |  | - |  | - |  | - |  | 72 |  | - |  | - |  | - |  | - |  | - |
| Survivor |  | 137 |  | 93 |  | 98 |  | 98 |  | - |  | 61 |  | 79 |  | 79 |  | 79 |  | 79 |
| Refunds |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Separation |  | - |  | - |  | - |  | - |  | - |  | - |  | - |  | - |  | - |  | - |
| Death |  | - |  | - |  | - |  | - |  | - |  | - |  | - |  | - |  | - |  | - |
| Total | \$ | 402 | \$ | 440 | \$ | 444 | \$ | 444 | \$ | 474 | \$ | 482 | \$ | 499 | \$ | 500 | \$ | 501 | \$ | 545 |

## Deferred Compensation Program Status Report

## DCP Status Report <br> Dollars in Thousands - Page 1 of 2

|  | 6/30/2017 |  | 6/30/2016 |  | 6/30/2015 |  | 6/30/2014 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Funding Media | Plan <br> Balance | \% | Plan <br> Balance | \% | Plan Balance | \% | Plan <br> Balance | \% |
| Active U.S. Core Stock Fund ${ }^{1}$ | \$ | \$ | \$ - | \$ | \$ | \$ | \$ | \$ - |
| Active U.S. Value Stock Fund ${ }^{1}$ | - | - | - | - | - | - | - | - |
| Emerging Market Equity Index² | 69,912 | 1.72\% | 49,471 | 1.37\% | 56,912 | 1.58\% | 59,894 | 1.68\% |
| Fidelity Growth Company Fund ${ }^{1}$ | - | - | - | - | - | - | - | - |
| Global Equity Index ${ }^{2}$ | 143,069 | 3.51\% | 116,099 | 3.21\% | 121,679 | 3.37\% | 114,142 | 3.19\% |
| International Stock Fund ${ }^{1}$ | - | - | - | - | - | - | - | - |
| Savings Pool | 869,125 | 21.31\% | 868,269 | 23.98\% | 863,001 | 23.91\% | 937,359 | 26.21\% |
| U.S. Large Cap Equity Index² | 444,276 | 10.90\% | 384,369 | 10.61\% | 364,343 | 10.09\% | 312,282 | 8.74\% |
| U.S. Small Cap Equity Index² | 221,996 | 5.44\% | 179,182 | 4.95\% | 188,368 | 5.22\% | 199,588 | 5.58\% |
| U.S. Small Stock Index Fund ${ }^{1}$ | - | - | - | - | - | - | - | - |
| U.S. Stock Market Index Fund ${ }^{1}$ | - | - | - | - | - | - | - | - |
| Washington State Bond Fund | 248,808 | 6.10\% | 242,947 | 6.71\% | 230,429 | 6.38\% | 222,168 | 6.21\% |
| Washington State Long-Horizon Fund ${ }^{3}$ | - | - | - | - | - | - | - | - |
| Washington State Mid-Horizon Fund ${ }^{3}$ | - | - | - | - | - | - | - | - |
| Washington State Short-Horizon Fund ${ }^{3}$ | - | - | - | - | - | - | - | - |
| Washington State Socially Responsible Balanced Fund | 154,665 | 3.79\% | 141,740 | 3.91\% | 132,229 | 3.66\% | 128,312 | 3.59\% |
| Retirement Maturity Strategy Fund ${ }^{4}$ | 27,015 | 0.66\% | 24,052 | 0.66\% | 23,772 | 0.66\% | 24,999 | 0.70\% |
| Retirement Strategy $2005{ }^{4}$ | 35,738 | 0.88\% | 36,136 | 1.00\% | 37,874 | 1.05\% | 39,905 | 1.12\% |
| Retirement Strategy $2010{ }^{4}$ | 102,286 | 2.51\% | 100,244 | 2.77\% | 111,130 | 3.08\% | 121,329 | 3.39\% |
| Retirement Strategy $2015{ }^{4}$ | 286,150 | 7.02\% | 280,694 | 7.75\% | 313,588 | 8.69\% | 332,310 | 9.29\% |
| Retirement Strategy $2020{ }^{4}$ | 454,443 | 11.14\% | 399,657 | 11.04\% | 401,305 | 11.12\% | 380,889 | 10.65\% |
| Retirement Strategy $2025^{4}$ | 400,990 | 9.83\% | 324,826 | 8.97\% | 313,852 | 8.70\% | 288,862 | 8.08\% |
| Retirement Strategy $2030{ }^{4}$ | 262,780 | 6.44\% | 205,154 | 5.67\% | 197,681 | 5.48\% | 183,453 | 5.13\% |
| Retirement Strategy 20354 | 172,841 | 4.24\% | 134,634 | 3.72\% | 129,075 | 3.58\% | 120,809 | 3.38\% |
| Retirement Strategy $2040^{4}$ | 95,102 | 2.33\% | 72,012 | 1.99\% | 68,789 | 1.90\% | 61,489 | 1.72\% |
| Retirement Strategy 20454 | 51,859 | 1.27\% | 36,635 | 1.01\% | 32,737 | 0.91\% | 28,288 | 0.79\% |
| Retirement Strategy $2050{ }^{4}$ | 18,587 | 0.46\% | 12,411 | 0.34\% | 10,782 | 0.30\% | 9,694 | 0.27\% |
| Retirement Strategy $2055{ }^{5}$ | 13,239 | 0.33\% | 10,319 | 0.28\% | 9,760 | 0.27\% | 9,964 | 0.28\% |
| Retirement Strategy $2060{ }^{6}$ | 4,976 | 0.12\% | 2,172 | 0.06\% | 1,801 | 0.05\% | - | - |
| Total | \$4,077,857 | 100.00\% | $\underline{\text { \$3,621,024 }}$ | 100.00\% | \$3,609,107 | 100.00\% | \$3,575,736 | 100.00\% |

${ }^{1}$ This investment option was discontinued in October 2011.
${ }^{2}$ This investment option was added in October 2011.
${ }^{3}$ This investment option was discontinued in October 2008.
${ }^{4}$ This investment option was added in October 2008. Retirement Maturity Strategy Fund replaced Retirement Strategy 2000 in January 2015.
${ }^{5}$ This investment option was added in January 2010.
${ }^{6}$ This investment option was added in January 2015.

## Deferred Compensation Program Status Report (cont.)



## DCP Performance

## DCP Performance

Performance Periods Ending June 30, 2017

| Fund Name Benchmark | Quarter Ending 6/30/2017 | Average Annual Total Returns |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 1 Year | 3 Years ${ }^{2}$ | 5 Years ${ }^{2}$ | 10 Years/ <br> Since Inception |
| Emerging Market Equity Index Fund | 5.84\% | 22.72\% | 0.94\% | 3.83\% | 5.40\% |
| MSCI Emerging Markets Investable Market Index | 5.78\% | 22.82\% | 1.03\% | 4.09\% | 5.60\% |
| Global Equity Index Fund | 4.43\% | 19.64\% | 5.38\% | 11.22\% | 12.21\% |
| MSCI ACWI Investable Market Index | 4.25\% | 19.01\% | 4.87\% | 10.74\% | 11.67\% |
| Savings Pool | 0.43\% | 1.53\% | 0.99\% | 1.06\% | 2.42\% |
| U.S. Large Cap Equity Index Fund | 3.11\% | 17.93\% | 9.67\% | 14.68\% | 7.30\% |
| S\&P 500 Index | 3.09\% | 17.90\% | 9.61\% | 14.63\% | 7.18\% |
| U.S. Small Cap Value Equity Index Fund | 0.81\% | 25.16\% | 7.32\% | 13.66\% | 6.00\% |
| Russell 2000 Value Index | 0.67\% | 24.86\% | 7.02\% | 13.39\% | 5.92\% |
| Washington State Bond Fund | 1.37\% | 1.89\% | 2.99\% | 3.24\% | 5.63\% |
| Barclays Capital Intermediate Credit Index | 1.38\% | 1.36\% | 2.60\% | 2.99\% | 4.87\% |
| Washington State Socially Responsible Balanced Fund | 3.30\% | 11.31\% | 6.76\% | 9.12\% | 7.03\% |
| Custom Benchmark ${ }^{3}$ | 2.81\% | 10.62\% | 5.45\% | 8.57\% | 6.06\% |
| Retirement Maturity Strategy Fund ${ }^{4}$ | 1.88\% | 5.45\% | 3.00\% | 5.11\% | 6.14\% |
| 2000 Composite Benchmark ${ }^{3}$ | 1.66\% | 4.83\% | 2.66\% | 4.89\% | 5.64\% |
| 2005 Retirement Strategy | 2.12\% | 6.77\% | 3.21\% | 6.08\% | 6.83\% |
| 2005 Composite Benchmark ${ }^{3}$ | 1.90\% | 6.19\% | 2.90\% | 5.93\% | 6.39\% |
| 2010 Retirement Strategy | 2.56\% | 8.98\% | 3.65\% | 7.21\% | 7.50\% |
| 2010 Composite Benchmark ${ }^{3}$ | 2.33\% | 8.39\% | 3.37\% | 7.11\% | 7.21\% |
| 2015 Retirement Strategy | 2.89\% | 11.19\% | 4.13\% | 8.27\% | 7.99\% |
| 2015 Composite Benchmark ${ }^{3}$ | 2.76\% | 10.60\% | 3.85\% | 8.20\% | 7.75\% |
| 2020 Retirement Strategy | 3.26\% | 12.90\% | 4.44\% | 9.04\% | 8.23\% |
| 2020 Composite Benchmark ${ }^{3}$ | 3.12\% | 12.31\% | 4.21\% | 9.01\% | 8.06\% |
| 2025 Retirement Strategy | 3.63\% | 14.38\% | 4.70\% | 9.74\% | 8.43\% |
| 2025 Composite Benchmark ${ }^{3}$ | 3.42\% | 13.72\% | 4.46\% | 9.75\% | 8.33\% |
| 2030 Retirement Strategy | 3.88\% | 15.75\% | 4.92\% | 10.30\% | 8.48\% |
| 2030 Composite Benchmark ${ }^{3}$ | 3.71\% | 15.13\% | 4.69\% | 10.38\% | 8.49\% |
| 2035 Retirement Strategy | 4.14\% | 17.03\% | 5.02\% | 10.62\% | 8.34\% |
| 2035 Composite Benchmark ${ }^{3}$ | 3.92\% | 16.37\% | 4.82\% | 10.77\% | 8.47\% |
| 2040 Retirement Strategy | 4.27\% | 17.87\% | 5.09\% | 10.79\% | 8.41\% |
| 2040 Composite Benchmark ${ }^{3}$ | 4.07\% | 17.25\% | 4.90\% | 11.01\% | 8.57\% |
| 2045 Retirement Strategy | 4.31\% | 18.20\% | 5.14\% | 10.84\% | 8.46\% |
| 2045 Composite Benchmark ${ }^{3}$ | 4.13\% | 17.54\% | 4.95\% | 11.04\% | 8.59\% |
| 2050 Retirement Strategy | 4.30\% | 18.17\% | 5.16\% | 10.84\% | 8.48\% |
| 2050 Composite Benchmark ${ }^{3}$ | 4.13\% | 17.54\% | 4.95\% | 11.04\% | 8.59\% |
| 2055 Retirement Strategy | 4.26\% | 18.20\% | 5.15\% | 10.83\% | 8.06\% |
| 2055 Composite Benchmark ${ }^{3}$ | 4.13\% | 17.54\% | 4.95\% | 11.04\% | 8.92\% |
| 2060 Retirement Strategy ${ }^{5}$ | 4.30\% | 18.21\% | - | - | 7.16\% |
| 2060 Composite Benchmark ${ }^{3}$ | 4.13\% | 17.54\% | - | - | 6.89\% |

${ }^{1}$ Current performance might be lower or higher than the performance data shown. Quoted performance data represents past performance and is not a guarantee or prediction of future results. For performance data current to the most recent month-end, visit www.drs.wa.gov/dcp. The investment return and principal value of an investment will fluctuate so that, when redeemed, shares/units might be worth more or less than their original costs. All returns are calculated in U.S. dollars.
${ }^{2}$ Dashed spaces indicate that data is not available. These funds have not been in existence long enough to have performance history for these periods.
${ }^{3}$ For the Washington State Socially Responsible Balanced Fund Custom Benchmark and all Composite Benchmark years 2000 through 2060, the benchmark returns are estimated based on what the portfolio would have earned using the return data from the various components.
${ }^{4}$ Retirement Maturity Strategy Fund replaced Retirement Strategy 2000 in January 2015
${ }^{5}$ This investment option was added in January 2015.

## DCP Net Asset Growth and Automatic Enrollment

## DCP Net Investment Asset Growth

For the Fiscal Years Ended June 30, 2008-2017 — Dollars in Millions


New DCP Participation Between January 1 and June 30, 2017
As of January 1, 2017, new state employees are automatically enrolled in DCP, the state's supplemental savings program. During this time period, about 1,400 participants were automatically enrolled each month. They have the option to stay in at the default rate of $3 \%$, opt in at a different rate or opt out of DCP. The chart below shows what those auto-enrolled employees chose to do.


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## DRS

WASHINGTON STATE
Department of Retirement Systems



[^0]:    ${ }^{1}$ The WSIB provided the money-weighted rates of return.
    ${ }^{2}$ The WSIB provided the CMAs and expected rates of return. OSA relied on the CMAs in its selection of the long-term expected rate of return for purposes of GASB Statement No. 67.

[^1]:    ${ }^{1}$ The WSIB provided the money-weighted rates of return.
    ${ }^{2}$ The WSIB provided the CMAs and expected rates of return. OSA relied on the CMAs in its selection of the long-term expected rate of return for purposes of GASB Statement No. 67.

[^2]:    ${ }^{1}$ The WSIB provided the money-weighted rates of return.
    ${ }^{2}$ The WSIB provided the CMAs and expected rates of return. OSA relied on the CMAs in its selection of the long-term expected rate of return for purposes of GASB Statement No. 67.

[^3]:    ${ }^{1}$ The WSIB provided the money-weighted rates of return.

[^4]:    ${ }^{1}$ The WSIB provided the CMAs and expected rates of return. OSA relied on the CMAs in its selection of the long-term expected rate of return for purposes of GASB Statement No. 67.

[^5]:    ${ }^{1}$ The WSIB provided the money-weighted rates of return.
    ${ }^{2}$ The WSIB provided the CMAs and expected rates of return. OSA relied on the CMAs in its selection of the long-term expected rate of return for purposes of GASB Statement No. 67.

[^6]:    ${ }^{1}$ The WSIB provided the money-weighted rates of return.
    ${ }^{2}$ The WSIB provided the CMAs and expected rates of return. OSA relied on the CMAs in its selection of the long-term expected rate of return for purposes of GASB Statement No. 67.

[^7]:    ${ }^{1}$ The WSIB provided the money-weighted rates of return.
    ${ }^{2}$ The WSIB provided the CMAs and expected rates of return. OSA relied on the CMAs in its selection of the long-term expected rate of return for purposes of GASB Statement No. 67.

[^8]:    ${ }^{1}$ The WSIB provided the money-weighted rates of return.
    ${ }^{2}$ The WSIB provided the CMAs and expected rates of return. OSA relied on the CMAs in its selection of the long-term expected rate of return for purposes of GASB Statement No. 67.

[^9]:    ${ }^{1}$ The WSIB provided the money-weighted rates of return.
    ${ }^{2}$ The WSIB provided the CMAs and expected rates of return. OSA relied on the CMAs in its selection of the long-term expected rate of return for purposes of GASB Statement No. 67.

[^10]:    ${ }^{1}$ The WSIB provided the money-weighted rates of return.
    ${ }^{2}$ The WSIB provided the CMAs and expected rates of return. OSA relied on the CMAs in its selection of the long-term expected rate of return for purposes of GASB Statement No. 67.

[^11]:    ${ }^{1}$ The WSIB provided the money-weighted rates of return.

[^12]:    ${ }^{1}$ The WSIB provided the CMAs and expected rates of return. OSA relied on the CMAs in its selection of the long-term expected rate of return for purposes of GASB Statement No. 67.

[^13]:    ${ }^{1}$ Plan fiduciary net position does not include the administrative fund allocations to the trust funds noted in Note 1, Section G, of the Financial Section.

[^14]:    ${ }^{1}$ Excludes inactive, nonvested members

[^15]:    ${ }^{2}$ Due to rounding, combined total membership might not equal 100\%.

[^16]:    Source: Washington State Office of the State Actuary

[^17]:    156 DRS $\nabla$ Actuarial Section - Comprehensive Annual Financial Report

[^18]:    Actuarial value of assets

[^19]:    ${ }^{1}$ Actuarial value of assets

[^20]:    ${ }^{1}$ Actuarial value of assets
    Source: Office of the State Actuary

[^21]:    162 DRS $\nabla$ Actuarial Section - Comprehensive Annual Financial Report

[^22]:    Sources: Unless otherwise noted, the information in this section's schedules comes from the Comprehensive Annual Financial Reports for the years being discussed.

[^23]:    ${ }^{1} 1$ (Life): Retiree's lifetime; $\mathbf{2}$ (100\%): Beneficiary receives same monthly benefit for life; $\mathbf{3} \mathbf{( 5 0 \% ) : ~ B e n e f i c i a r y ~ r e c e i v e s ~ h a l f ~ t h e ~ m o n t h l y ~ b e n e f i t ~ f o r ~ l i f e ; ~}$ or $\mathbf{4}$ (66\%): Beneficiary receives two-thirds the monthly benefit for life

[^24]:    ${ }^{2}$ Joint and survivor options are available for post-retirement marriages.

[^25]:    ${ }^{1}$ Average monthly benefit and average final salary (monthly) figures include members at retirement who might not be audited. Retirees with missing or invalid data elements were excluded.

    Source: Office of the State Actuary

[^26]:    ${ }^{1}$ Average monthly benefit and average final salary (monthly) figures include members at retirement who might not be audited. Retirees with missing or invalid data elements were excluded.

    Source: Office of the State Actuary

[^27]:    ${ }^{1}$ Average monthly benefit and average final salary (monthly) figures include members at retirement who might not be audited. Retirees with missing or invalid data elements were excluded.

    Source: Office of the State Actuary

[^28]:    ${ }^{1}$ Average monthly benefit and average final salary (monthly) figures include members at retirement who might not be audited. Retirees with missing or invalid data elements were excluded.

    Source: Office of the State Actuary

[^29]:    ${ }^{1}$ Average monthly benefit and average final salary (monthly) figures include members at retirement who might not be audited. Retirees with missing or invalid data elements were excluded.

    Source: Office of the State Actuary

[^30]:    ${ }^{1}$ Average monthly benefit and average final salary (monthly) figures include members at retirement who might not be audited. Retirees with missing or invalid data elements were excluded.

    Source: Office of the State Actuary

[^31]:    ${ }^{1}$ Average monthly benefit and average final salary (monthly) figures include members at retirement who might not be audited. Retirees with missing or invalid data elements were excluded.

    Source: Office of the State Actuary

[^32]:    ${ }^{1}$ Average monthly benefit and average final salary (monthly) figures include members at retirement who might not be audited. Retirees with missing or invalid data elements were excluded.

    Source: Office of the State Actuary

[^33]:    ${ }^{1}$ Average monthly benefit and average final salary (monthly) figures include members at retirement who might not be audited. Retirees with missing or invalid data elements were excluded.

    Source: Office of the State Actuary

[^34]:    ${ }^{1}$ Average monthly benefit and average final salary (monthly) figures include members at retirement who might not be audited. Retirees with missing or invalid data elements were excluded.

    Source: Office of the State Actuary

[^35]:    ${ }^{1}$ Average monthly benefit and average final salary (monthly) figures include members at retirement who might not be audited. Retirees with missing or invalid data elements were excluded.

    Source: Office of the State Actuary

[^36]:    ${ }^{1}$ Average monthly benefit and average final salary (monthly) figures include members at retirement who might not be audited. Retirees with missing or invalid data elements were excluded.

    Source: Office of the State Actuary

