## Helping Idaho Public Employees Build a Secure Retirement



Public Employee Retirement System of Idaho A Component Unit of the State of Idaho

2016 Comprehensive Annual Financial Report As of and for Fiscal Year Ended June 30, 2016

## Public Employee Retirement System of Idaho A Component Unit of the State of Idaho



Comprehensive Annual Financial Report As of and for Fiscal Year Ended June 30, 2016

This Comprehensive Annual Financial Report was prepared by:

Financial: Alex Simpson, Financial Executive Officer

Brenda Cronin, CPA, Senior Accountant

Cecile McMonigle, Portfolio Accountant

Investments: Robert M. Maynard, Chief Investment Officer

Richelle Sugiyama, Investment Officer

Administration: Kelly Cross, Public Information Officer



#### INTRODUCTORY SECTION

- 1 PERSI Mission Statement, Core Values, Vision, and Fiduciary Duty of Loyalty
- 2 PERSI Retirement Board and Executive Staff
- 3 Professional Consultants
- 4 Certificate of Achievement for Excellence in Financial Reporting
- 5 Public Pension Standards Award
- 6 Organizational Structure
- 7 Plan Summary
- 11 Letter of Transmittal

#### **FINANCIAL SECTION**

- 18 Independent Auditor's Report
- 21 Management's Discussion and Analysis

Basic Financial Statements as of and for Fiscal Year Ended June 30, 2014

- 29 Statements of Fiduciary Net Position
- 31 Statements of Changes in Fiduciary Net Position
- 33 Notes to Financial Statements

#### Required Supplementary Information

- 57 Schedule of Changes in Net Pension Liability
- 60 Schedule of Net Pension Liability
- 61 Schedule of Contributions
- 62 Schedule of Investment Returns
- 63 Notes to Required Supplementary Information

#### Additional Supplementary Information

- 65 Schedule of Investment Expenses
- 66 Schedule of Administrative Expenses
- 67 Independent Auditor's Report on Internal Control and Compliance

#### **INVESTMENT SECTION**

- 69 Report on Investment Activity
- 77 Investment Summary
- 78 Schedule of Investments by Account
- 80 Investment Results
- 82 Schedule of Investment Income for the Last Six Years
- 82 List of Largest Assets Held
- 83 Schedules of Fees and Commissions
- 85 Statement of Investment Policy and Guidelines
- 95 Strategic Asset Allocation

#### **ACTUARIAL SECTION**

- 97 Certification Letter PERSI
- 101 Exhibit 1: Summary of Actuarial Assumptions and Methods
- 105 Exhibit 2: Schedule of Active member Valuation Data
- 106 Exhibit 3: Schedule of Retiree and Beneficiary Valuation Data
- 107 Exhibit 4: Schedule of Funding Progress
- 108 Exhibit 5: Solvency Test
- 109 Exhibit 6: Analysis of Actuarial Gains or Losses
- 110 Exhibit 7: Schedule of Contributions From the Employer and All Other Contributing Entities
- 111 Exhibit 8: Schedule of Contributions From the Employer Expressed as a Percentage of Payroll
- 112 Exhibit 9: Provisions of Governing Law
- 116 Certification Letter Firefighters' Retirement Fund
- 121 Exhibit 1: Summary of Actuarial Assumptions and Methods
- 124 Exhibit 2: Schedule of Active member Valuation Data
- 125 Exhibit 3: Schedule of Retiree and Beneficiary Valuation Data



126	Exhibit 4: Schedule of Funding Progress
127	Exhibit 5: Solvency Test
128	Exhibit 6: Analysis of Actuarial Gains or Losses
129	Exhibit 7: Schedule of Contributions From the Employer and All Other Contributing Entities
130	Exhibit 8: Contributions Rates as a Percent of Pay
131	Exhibit 9: Provisions of Governing Law
137	Certification Letter – Judges' Retirement Fund
141	Exhibit 1: Summary of Actuarial Assumptions and Methods
144	Exhibit 2: Schedule of Active member Valuation Data
145	Exhibit 3: Schedule of Retiree and Beneficiary Valuation Data
146	Exhibit 4: Schedule of Funding Progress
147	Exhibit 5: Solvency Test
148	Exhibit 6: Analysis of Actuarial Gains or Losses
149	Exhibit 7: Schedule of Contributions From the Employer
150	Exhibit 8: Contributions Rates as a Percent of Covered Payroll
151	Exhibit 9: Provisions of Governing Law

#### STATISTICAL SECTION

,,,,,,,	HOAL GLOHON
155	Table 1 - Schedule of Membership Distribution by Group
156	Table 2 - Schedule of Changes in Membership
156	Table 3 - Schedules of Retired Members by Type of Benefit
159	Table 4 - Schedules of Average Benefit Payments
163	Table 5 - Schedules of Benefit Expenses by Type
164	Table 6 - Schedule of Historical Cost-of-Living Adjustments
166	Table 7 - Schedule of Changes in Net Position
177	Table 8 - Schedule of Principal Participating Employers
178	Table 9 - Schedule of Public Entities Participating in PERSI
184	Map of Benefits Paid
185	PERSI Reference Page



Helping Idaho public employees build a secure retirement.



#### PERSI MISSION STATEMENT

To provide a sound retirement system and high quality service and education to help Idaho public employees build a secure retirement.

#### **CORE VALUES**



#### VISION

To be the premier public retirement system, respected by customers, peers, and the community, and known for professional service, technological advancement, and fund stability.

#### FIDUCIARY DUTY OF LOYALTY

The primary duty of the Retirement Board and PERSI staff, as fiduciaries, is that of loyalty, or acting with an "eye single" to the interests of the beneficiaries. PERSI is required by law to make all its decisions solely in the interest of the beneficiaries and to avoid, at all costs, serving the interests of any other party not a beneficiary of the system.

#### C.L. "Butch" Otter, Governor, State of Idaho

#### **RETIREMENT BOARD**



Jody B. Olson, Chairman Term expires July 1, 2017



**Jeff Cilek**Term expires July 1, 2020



**Celia Gould**Term expires July 1, 2018



**Joy Fisher** Term expires July 1, 2019



**J. Kirk Sullivan** Term expires July 1, 2016

#### PERSI EXECUTIVE ADMINISTRATIVE STAFF

Donald D. Drum, Executive Director
Michael L. Hampton, Deputy Director
Joanna Guilfoy, Deputy Attorney General
Robert M. Maynard, Chief Investment Officer
Alex Simpson, Financial Executive Officer
Kelly Cross, Public Information Officer
Jess Simonds, Human Resources Manager
Diane Kaiser, Defined Contribution Manager
Larry Sweat, Information Technology Manager
Lisa Conn, Quality Assurance Auditor

#### **PROFESSIONAL CONSULTANTS**

Actuary: Milliman, Inc., Boise, ID

Gabriel, Roeder, Smith & Co, Detroit, MI

Auditor: Eide Bailly, LLP, Boise, ID

Medical: Managed Medical Review Organization, Novi, MI

Investment: AEW Capital Management, L.P. Boston, MA

Alban Row, LLC, Mt. Pleasant, SC,

Berkadia Commercial Mortgage LLC, Horsham, PA

Callan Associates, Inc., San Francisco, CA

Legal: Foster Pepper, PLLC, Seattle, WA

Ice Miller, LLP, Columbus, OH

Whiteford, Taylor & Preston, LLP, Baltimore, MD

Other: Empower Retirement, Denver, CO

Investment Custodians: Bank of New York Mellon Asset Servicing, Pittsburgh, PA

Wells Fargo Bank of Idaho, Boise, ID

**Investment Managers:** 

Adelante Capital Management LLC, Berkeley, CA

Advent International Corp., Boston, MA Ascribe Capital, LLC, New York, NY Apollo Management, LP, Purchase, NY Bank of New York Mellon, San Francisco, CA

Baring America Asset Management, Inc., Boston, MA Blackstone Group, LP, New York, NY

Brandes Investment Partners, LP, San Diego, CA

Bridgepoint Capital LTD, London

Capital Guardian Trust Company, Brea, CA

Cascade Affordable Housing, LLC Seattle, WA

Cerberus Capital Management, L.P., New York, NY

Clearwater Advisors LLC, Boise, ID

CVC Capital Partners Advisory Co. LTD, London

D.B. Fitzpatrick & Co., Inc., Boise, ID Donald Smith & Co., Inc., New York, NY Endeavour Capital Partners, L.P., Portland, OR Enhanced Equity Partners, LLC, New York, NY Epic Ventures, LLC, Salt Lake City, UT

First Reserve Corporation, Greenwich, CT

Frazier Technology Ventures Management, LP, Seattle, WA

Galen Management, LLC, Stamford, CT Genesis Asset Managers, LTD, London Goense Bounds Management, LP, Chicago, IL Hamilton Lane Advisors, LLC, Baja Cynwyd, PA Chartwell Consulting, LLC, Bedford, NH

Hamilton Lane Advisors, LLC, Philadelphia, PA

Robert Storer, Juneau, AK

Hamilton Lane, G.P., Baja Cynwyd, PA Highway 12 Capital Partners, LLC, Boise, ID Ida-West Operating Services, Inc., Boise, ID JH Whitney Capital Partners, LLC, New Canaan, CT Kohlberg Kravis Roberts & Co., LP, New York, NY Kohlberg Management, LLC, Mt Kisko NY Leonard Green & Partners, LP, Los Angeles, CA

Lindsay Goldberg, LLC, New York, NY Littlejohn Associates, LLC, Greenwich, CT

Longview Partners, LP, London

Mondrian Investment Partners, LTD., London Mountain Pacific Investment Advisers, Inc., Boise, ID

Nautic Partners, LLC, Providence, RI Olympic Investors, LLC, Seattle, WA

Peregrine Capital Management, Inc., Minneapolis, MN Providence Equity Partners, LLC, Providence, RI Prudential Investment Management LLC, Newark, NJ Sanford C. Bernstein & Co. LLC, New York, NY State Street Global Advisors, Boston, MA

TPG Capital, LP, Fort Worth, TX

The Gores Group, LLC, Los Angeles, CA

Tukman Grossman Capital Management, Inc., Larkspur, CA

Veritas Capital, LP New York, NY W. Capital Partners, LLC, New York, NY Western Asset Management Co., Pasadena, CA

Additional information on the above-mentioned investment professionals can be found on pages 78-79 in the Investment Section of this report.



Government Finance Officers Association

Certificate of Achievement for Excellence in Financial Reporting

Presented to

## Public Employee Retirement System of Idaho

For its Comprehensive Annual Financial Report for the Fiscal Year Ended

June 30, 2015

Executive Director/CEO



## **Public Pension Coordinating Council**

# Public Pension Standards Award For Funding and Administration 2016

Presented to

## Public Employee Retirement System of Idaho

In recognition of meeting professional standards for plan funding and administration as set forth in the Public Pension Standards.

Presented by the Public Pension Coordinating Council, a confederation of

National Association of State Retirement Administrators (NASRA) National Conference on Public Employee Retirement Systems (NCPERS) National Council on Teacher Retirement (NCTR)

> Alan H. Winkle Program Administrator

alan Helinkle

### Organizational Chart (As of June 30, 2016)

#### **Retirement Board**

Donald D. Drum	Michael L. Hampton	Kelly Cross	Jess Simonds	Joanna Guilfoy
Executive Director	Deputy Director	Public Information Officer	Management Assistant / HR	Deputy Attorney General
Robert M. Maynard Chief Investment Officer	Richelle Sugiyama Investment Officer	Rose Marie Sawicki Administrative Assistant	Investment Managers See Investment Section for a list (pages 80-81)	
Vacant	Mike Mitchell	Carmen Brooks	Catherine Atchison	
Program Manager	Training Specialist	Training Specialist	Training Specialist	
Alex Simpson	James E. Monroe	Vacant Financial Specialist Principal	Cecile McMonigle	Tanya Martin
Financial Executive Officer	Financial Officer		Portfolio Accountant	Portfolio Accountant
	Brenda Cronin	Brandon Rigby	Ellise Fowler	Barbara Sargent
	Financial Specialist Sr.	Financial Specialist	Financial Technician	Financial Technician
	Barbara Weirick	Bev Ross	<b>Brian Dealy</b>	<b>Mei Liu</b>
	Financial Technician	Financial Technician	Financial Technician.	Financial Technician
	Tess Myers Administrative Assistant	Sharon Simon Financial Support Tech.		
Lisa Conn Quality Assurance Auditor	Jennifer Reeder Retirement Specialist	Dusty Schild Retirement Specialist		
Diane Kaiser DC Plan Manager	Mika Milette Administrative Assistant			
Larry Sweat	Joy Fereday IT Systems Analyst Supervisor	Stacy Parr	Pat Gittings	Branden Kennah
Information Technology Manager		Web Master	Project Manager	IT Sys Integr. Analyst, Sr.
	Kurtis Leatham	Jason Smith	Kris Colt	Randy Graybeal
	IT Sys Integr. Analyst	IT Sys Integr. Analyst, Assoc	IT Info. System Tech	IT Network Analyst
	Timothy Wolfrum Technical Writer			
Vacant	Shasta Wardle Office Services Supervisor	Lisa Mabe	Kathi Kaufman	Sherry Slocum
Member Services Manager		Retirement Specialist	Retirement Specialist	Disability Specialist
	<b>Linda Parker</b> Retirement Specialist	Andrea Colglazier Retirement Specialist	Brett Harper Retirement Specialist	Casey Hartwig Retirement Specialist
	Catherine Miles Retirement Specialist	<b>Debera Anderson</b> Retirement Specialist	Vacant Retirement Specialist	<b>Daryl King</b> Customer Service Rep.
	Carl Parmer Customer Service Rep.	April Bias Customer Service Rep.	Melanie Hale Customer Service Rep.	Nicole Sherrod Customer Service Rep.
	Mary Holleron	Vacant	Stephen Mytrysak	Cathy Andrews
	Customer Service Rep.	Customer Service Rep.	Technical Records Spec.	Technical Records Spec.
	Karen Oster	Wayne Millar	Vacant	Janet Cole
	Technical Records Spec.	Technical Records Spec.	Technical Records Spec.	Office Specialist

#### THE SYSTEM

The Public Employee Retirement System of Idaho (the System) is the administrator of seven fiduciary funds. This includes three defined benefit retirement plans, the Public Employee Retirement Fund Base Plan (PERSI Base Plan) the Firefighters' Retirement Fund (FRF) and the Judges' Retirement Plan (JRF); two defined contribution plans, the Public Employee Retirement Fund Choice Plan 401(k) and 414(k) (PERSI Choice Plans); and two Sick Leave Insurance Reserve Trust Funds – one for state employers and one for school district employers.

The Retirement Board consists of five members, each appointed by the Governor to fulfill a 5-year term. The Board meets monthly to conduct System business, usually on the third Tuesday of each month at 8:30 a.m. at PERSI's headquarters office in downtown Boise.

Administrative expenditures consisting of the personnel costs, operating expenditures, and capital outlay necessary to operate the System are limited to those approved and appropriated by the Legislature for that purpose. In Fiscal Year 2016 (FY16), these costs totaled \$8,695,677 including \$374,116 in depreciation and amortization, which are not cash expenditures and, therefore, not appropriated.

The majority of the System's 66 staff works in the headquarters office located at 607 North 8<sup>th</sup> Street, Boise, Idaho. There are two staff members in the Coeur d'Alene office, and three in the Pocatello office. The Executive Director and Investment Officers are exempt positions appointed by the Retirement Board to serve at its pleasure. The Deputy Director and Public Information Officer are exempt positions serving under the Executive Director. The Deputy Attorney General is assigned to PERSI by the Office of the Attorney General. All other staff members serve under statutes and personnel rules governing classified state service.

The System staff oversees the investment of the trust corpus and new contributions with professional investment managers and funding agents. The Retirement Board maintains fiduciary responsibility for investment policy, asset allocation, and the selection of individual investment managers as discussed in the Investment Section.

#### **SUMMARY OF PLAN PROVISIONS**

#### **DEFINED BENEFIT "BASE PLAN" PROVISIONS**

Note: The items in parentheses are the provisions applicable to members designated as either PERSI firefighters or as PERSI police officer members for retirement purposes.

#### **MEMBER CONTRIBUTION RATE**

The employee contribution rate is set by statute at 60% (72%) of the employer rate. As of June 30, 2016, it was 6.79% (8.36%).

#### **EMPLOYER CONTRIBUTION RATE**

The employer contribution rate set by the Retirement Board was 11.32% (11.66%) as of June 30, 2016.

#### SERVICE RETIREMENT

#### **ELIGIBILITY**

Five years of service and age 65 (age 60 or between 60 and 65, depending on the ratio of police officer/firefighter service to total credited service).

#### AMOUNT OF ALLOWANCE

For each year of credited service, the monthly service retirement allowance as of June 30, 2016, was 2% (2.3% for police/firefighters) of the monthly average salary of the member's highest 42 consecutive months.

#### MINIMUM MONTHLY BENEFIT ALLOWANCE

Until February 28, 2016: for each year of service, the monthly minimum benefit allowance was \$25.37 (\$30.44) to a maximum of the member's accrued benefit. Effective March 1, 2016 the monthly minimum benefit allowance was \$25.62 (\$30.75).

#### DISABILITY TO SERVICE RETIREMENT

The regular retirement allowance for disability changes to service retirement allowance when the member reaches service retirement age. The disabled member completes the normal retirement application, offering the ability to select other retirement options.

#### **OPTIONAL FORMS**

Retirees may also choose 50% or 100% contingent annuitant options as well as Social Security "bridge" options. These are actuarial equivalents of the normal form based on the mortality and interest assumptions adopted by the Retirement Board. The allowance is payable for the life of the retiree and designated contingent annuitant.

#### **EARLY RETIREMENT**

#### **ELIGIBILITY**

Five years of service and age 55 (age 50 or between 50 and 55, depending on the ratio of police officer/firefighter service to total credited service).

#### AMOUNT OF ALLOWANCE

Unreduced accrued service retirement allowance if age plus service, upon separation from employment, total 90 (80, or between 80 and 90, depending on the ratio of police officer/firefighter service to total credited service); otherwise, the accrued service retirement allowance is reduced 3% for each of the first 5 years by which the early retirement date precedes the date the member would be eligible to receive the unreduced benefit, and by 5.75% for each additional year to a maximum of a second 5 years. The unreduced benefit entitlement may be either at the service retirement eligibility date or the date eligible for the rule of 90(80).

#### **FORMS**

Regular retirement allowance; contingent annuitant allowances for the life of the retiree and a designated contingent annuitant; Social Security level income option for the life of the retiree only or for the life of the retiree and designated survivor.

#### **DISABILITY RETIREMENT**

#### **ELIGIBILITY**

Active members must have 5 years of service, be unable to perform work of *any* kind, and be expected to remain disabled for life. They are eligible from first day on the job if the disability is due to occupational causes.

#### AMOUNT OF ALLOWANCE

Projected service retirement allowance based on the highest 42-consecutive month average salary at the time of disability. The benefit is calculated using the accrued service at the time of disability plus the service which would have accrued through service retirement age had the disability not occurred. If a member has less than 360 months of service as of the date he is eligible for disability retirement, he will be given credit for the months of service he would have earned from the date of disability to the date he would have reached Service Retirement Age (65 for general members/62 for police and firefighters) had he not become disabled (360 months of credited service maximum). In other words, PERSI will give members up to 30 years of credit or to Service Retirement Age, whichever comes first. Monthly allowance is payable after all temporary compensation ceases and is offset by the amount payable as income benefit under worker's compensation law, except when offset by Social Security. Effective July 1, 2009, public safety officers who are injured in the line of duty and determined to be permanently disabled under Idaho Code 59-1302(12), may be eligible to receive a one-time, lump-sum payment of \$100,000.

#### DISABILITY TO SERVICE RETIREMENT

The regular retirement allowance for disability changes to service retirement allowance when the member reaches service retirement age. The disabled member completes the normal retirement application offering them the ability to select other retirement options.

#### **DEATH BENEFITS**

#### AFTER RETIREMENT

Under the normal form of the retirement allowance, a Social Security adjustment option, or a disability retirement, the balance, if any, of the member's accumulated contributions and interest at retirement over all payments received is paid to the beneficiary in a lump sum. In the case of a disability retirement, the beneficiary may waive the lump sum if the retiree is married so that the spouse will receive a lifetime monthly allowance, or the beneficiary may take a lump-sum payment of two times the amount in the member's account at the time of disability retirement minus any amount paid. Under the contingent annuitant options, the designated annuitant receives a lifetime monthly benefit following the member's death. If the survivor dies before the balance of the member's accumulated contributions and interest has been paid, the balance will be paid to the beneficiary in a lump sum. If the member's designated contingent annuitant predeceases him/her, the member's allowance will be recalculated to a single life payment.

#### BEFORE RETIREMENT

- 1 Non-vested Members:
  - a Beneficiary receives a lump sum payment of the member's accumulated contributions plus interest.

#### 2 Vested Members:

- a Beneficiary receives a lump sum payment of two times the member's accumulated contributions plus interest.
- b If the member is married, and the spouse is the sole beneficiary, the spouse may select a lump sum payment or a lifetime monthly benefit.
- c If the member is married, but the spouse is not the sole beneficiary, the beneficiary may waive the lump sum, in which case, a lifetime monthly benefit is available to the surviving spouse.



A \$100,000 death benefit for duty-related deaths for police officers/firefighters became effective July 1, 2003.

#### **SEPARATION BENEFIT**

Accumulated member contributions with regular interest is payable upon becoming an inactive member separated from eligible employment. The Regular Interest Rate in effect for FY16 was 2.39% from January 1 through June 30, 2016 (15.04% from July 1 through December 31, 2015) compounded monthly per annum.

#### POSTRETIREMENT ADJUSTMENTS

An annual postretirement adjustment based on and limited by a cost-of-living factor reflecting the changes in the Consumer Price Index-Urban (CPI-U) is effective in March each year. If the CPI-U change from August of the previous year to August of the second previous year is 1% or more, a 1% mandatory adjustment is made. The Board may authorize additional discretionary adjustments based on the CPI-U increase (up to a total maximum annual COLA of 6% or the CPI-U rate, whichever is lower) if it determines that the System can do so and still maintain an appropriately funded position as required by Idaho Code Section 59-1355(1). When discretionary COLA adjustments in excess of the 1% are authorized by the Board, they are reported to the Legislature. If the Legislature has not acted on the Board adjustment by the 45<sup>th</sup> day of the legislative session, the discretionary COLA, if any, becomes effective on March 1 of that year.

The Board is also authorized to award postretirement adjustments for prior years in which the actual amount of adjustment was less than the CPI-U for those years. If the CPI-U change is downward, in no event will any benefit be reduced below its initial amount.

The net COLA authorized and implemented March 1, 2016 was up to 1%. (a .2% COLA and an additional retroactive increase of up to .8%).



#### HELPING YOU BUILD A SECURE RETIREMENT

Governor C. L. "Butch" Otter

Retirement Board Jody B. Olson, Chairman J. Kirk Sullivan Jeff Cilek Joy Fisher Celia R. Gould

> Executive Director Donald D. Drum

> > Phones

Answer Center 208-334-3365 FAX 208-334-3805

Toll Free Answer Center 1-800-451-8228 Employer Line 1-866-887-9525

> Mailing Address P.O. Box 83720 Boise ID 83720-0078

Boise
Office Location Address
607 North 8<sup>th</sup> Street
Boise ID 83702-5518

Pocatello
Office Location Address
1246 Yellowstone Ave., Ste. A5
Pocatello ID 83201

Coeur d' Alene Office Location Address 2005 Ironwood Pkwy #226 Coeur d' Alene ID 83814-2680

> Choice 401(k) Plan Record Keeper 1-866-437-3774

www.persi.idaho.gov

**Equal Opportunity Employer** 

December 6, 2016

Dear Governor Otter, Legislators, and Members of the Retirement System:

We are pleased to present to you the Public Employee Retirement System of Idaho (the System) comprehensive annual financial report, for the fiscal year ended June 30, 2016 (FY16). This financial report is a historical perspective of benefits, services, and fiscal activities of the System. Included is a summary of our actuarial valuations, an independent auditors' report, an investment summary, and a statistical section.

Generally accepted accounting principles require management to provide a narrative introduction, overview, and analysis to accompany the basic financial statements in the form of Management's Discussion and Analysis (MD&A). This letter of transmittal is designed to complement the MD&A and should be read in conjunction with it. The System's MD&A can be found immediately following the independent auditors' report.

The Government Finance Officers Association of the United States and Canada (GFOA) awarded a Certificate of Achievement for Excellence in Financial Reporting to PERSI for its comprehensive annual financial report for the fiscal year ended June 30, 2015. This was the 25th consecutive year. PERSI has achieved this prestigious award. To be awarded a Certificate of Achievement, a government must publish an easily readable and efficiently organized comprehensive annual financial report. This report must satisfy both generally accepted accounting principles and applicable legal requirements.

A Certificate of Achievement is valid for a period of one year only. We believe our current comprehensive annual financial report continues to meet the Certificate of Achievement Program's requirements, and we are submitting it to GFOA to determine its eligibility for another certificate.

For the 14<sup>th</sup> consecutive year, PERSI has been awarded the *Public Pension Coordinating Council Standards Award*. This award signifies that PERSI complies with the standard benchmarks for public defined benefit systems in the United States. The standards require a high level for the following: comprehensive benefit program, funding adequacy, accepted actuarial and audit practices, investment policy and evaluation, and member communications. This award is given to 50 to 60 public retirement systems each year.

This Letter of Transmittal is intended to serve as an overview of the System and to convey information on the topics that follow.

#### **PLAN HISTORY**

The Public Employment Retirement System of Idaho (PERSI) was created by the thirty-seventh Legislature, Regular Session of 1963 with funding effective July 1, 1965. It is a tax qualified, defined benefit system to which both the member and the employer contribute. Participation in the System is mandatory for eligible state and school district employees and available to other public employers and their employees on a contractual basis.

When the Teachers Retirement System of Idaho was abolished, members of that system were integrated into PERSI, and all other eligible school district employees became PERSI members effective July 1, 1967.

Legislative amendments since 1965 have made it possible for municipal police officer retirement funds to merge with the System, and two of the five police officer systems have since merged. The other three are being phased out, and police officers hired since 1969 have become PERSI members.

Legislation in 1979 mandated the Firefighters' Retirement Fund be administered by PERSI effective October 1, 1980. Paid firefighters who were members of the original system retained their original benefit entitlement, while paid firefighters hired after October 1, 1980, were entitled to PERSI benefits. An actuarial valuation of the firefighter member benefit entitlement is conducted at least every other year, separate from the annual PERSI valuation.

In January 2001, PERSI implemented a "Gain Sharing" program as a way to distribute \$155 million in excess investment earnings back to our active members, retirees, and employer members. Retirees received their gain sharing as a "13<sup>th</sup> check." Employers received their share as a contribution "holiday." Some 53,000 eligible active members received their portion as deposits into newly created defined contribution (DC) accounts. This new plan, named the "PERSI Choice 401(k) Plan," supplemented PERSI's traditional Defined Benefit (DB) "Base" Plan. It allowed employees for the first time to actively participate in saving for their retirement.

At the time of inception, the Choice Plan was somewhat unique in the public sector. PERSI obtained permission from the Internal Revenue Service to expand a grandfathered State 401(k) to our members statewide. While some public employees were familiar with 457 or 403(b) plans, a 401(k) was something new to them. Many of our members had never had the opportunity to make such pre-tax voluntary contributions.

PERSI assumed the administration for the Judges' Retirement Fund (JRF) starting July 1, 2014.

#### **SERVICES PROVIDED**

The ability of the System to serve both employee and employer members at the local level through the Boise, Pocatello, and Coeur d' Alene offices remains a key factor for efficient administration. The merging of other retirement systems with PERSI, plus statutory amendments over the years, have produced both multiple and diverse member benefit entitlements and administrative requirements. These can best be analyzed and explained to the members through personal contact with knowledgeable System staff members.

In its 51<sup>st</sup> year of operation, the System continued a wide range of services to both employee and employer members. Members may visit the PERSI Web site, call, email, or visit one of the three offices for personal information and assistance regarding credited service, account balances, eligibility, benefit options and amounts, and other retirement matters.

Members receive advance notice of service retirement qualification and are provided with estimates of monthly allowances. They also receive information regarding the availability of alternate forms of retirement payments. Retirement applications are processed in a timely fashion, and monthly payments are made promptly. Direct deposit of benefit payments is available to retired members as is withholding for income tax, medical insurance, or other purposes.

System retirees are provided notices whenever their net benefit amount changes. This notice gives retirees a list of their itemized deductions from their gross benefit. Retirees may also access additional account information through the online web portal.

Separation and death benefits are paid in an orderly manner and as rapidly as possible. Employee contributions and earned interest are posted to individual member accounts each month, and an annual statement is provided to each member confirming their average monthly salary, credited service, contributions, and earned interest. In addition, a report of benefits accrued to date is provided along with an estimate of benefits projected ahead to various retirement ages.

PERSI's employer units are responsible for reporting and handling retirement transactions and activities. They are provided regular training and assistance through monthly newsletters, employer training sessions throughout the State, and personal contacts with PERSI staff, as needed.

Upon request, public employers interested in affiliation with the System are counseled and provided with information regarding employee benefits, cost, and procedures associated with joining. Conversely, employers considering withdrawal are provided information and employee benefit projections to enable them to make an informed decision.

Pre-retirement and financial planning workshops, offered on a regular basis throughout the State, cover financial planning, budgeting, investment basics, and Social Security, Medicare, and System benefits.

#### **EMPLOYEE AND EMPLOYER MEMBERSHIP**

During FY 2016, the number of active PERSI members Increased from 67,008 to 68,517. The number of retired members or annuitants receiving monthly allowances increased from 42,657 to 44,181. The number of inactive members who have not been paid a separation benefit increased from 29,827 to 31,862. Of these inactive members, 12,251 have achieved vested eligibility. Total membership in PERSI increased from 139,492 to 144,560 during the fiscal year. There are currently 775 public employers in Idaho who are PERSI members. Participating employers are listed in the Statistical Section of this report.

#### MANAGEMENT RESPONSIBILITY

The System's management is responsible for the complete and fair presentation of the data and the accompanying disclosures in this report. The financial statements and supplemental schedules included in this report have been prepared in accordance with generally accepted accounting principles for governmental accounting and reporting as pronounced or adopted by the Governmental Accounting Standards Board.

#### **INDEPENDENT AUDIT**

The System is audited annually, and for the fiscal year ended June 30, 2016, the audit was conducted by Eide Bailly, LLP, an independent firm of Certified Public Accountants. Refer to the Independent Auditors' Report for their audit opinion.

#### INTERNAL ACCOUNTING CONTROL

As an agency of the State of Idaho, the System's administrative expenses are subject to the State's budget controls. Management is responsible for maintaining a system of internal accounting control designed to provide reasonable assurance transactions are executed in accordance with management's general or specific authorization and are recorded as needed to maintain accountability for assets to permit preparation of financial statements. Internal controls have inherent limitations and their costs should not outweigh their benefits. Internal control procedures have been established, and a budget report is prepared for the Board. We believe the internal controls in effect during FY 2016 adequately safeguard the assets and provide reasonable assurance regarding the proper recording of financial transactions.

#### FINANCIAL HIGHLIGHTS

Collection of employer and employee contributions, as well as income and gains from investments, provides the reserves necessary to finance retirement benefits. These income sources totaled \$878,386,899 for all pension funds during the fiscal year ended June 30, 2016.

ADDITIONS:	
Contributions	\$ 638,537,577
Transfers/Rollovers In	11,868,500
INVESTMENT INCOME:	
Net Appreciation (Depreciation) in Fair Value of Investments	(70,562,706)
Interest, Dividends and Other Investment Income	343,793,935
Less: Investment Expenses	(45,279,510)
Net Investment Income	 878,357,796
OTHER INCOME	29,103

The payment of benefits is the primary expense of a retirement system. The payments, together with the expenses to administer the Plan, constitute the total expenses of the System. Expenses for FY 2016 are as follows:

#### **DEDUCTIONS:**

**Total Additions** 

Benefits and Refunds Administrative Expenses	\$ 910,266,806 8,695,677
Total Deductions	\$ 918,962,483

878,386,899

#### **ACTUARIAL PRESENT VALUE OF FUTURE BENEFITS**

Future benefits include all benefits estimated to be payable to plan members (retirees and beneficiaries, terminated employees entitled to benefits but not yet receiving them, and current active members) as a result of their service through the valuation date and their expected future salary. The actuarial present value of future benefits as of the valuation date is the present value of the cost to finance benefits payable in the future, discounted to reflect the expected effects of the time value (present value) of money and the probabilities of payment. Simply put, it is the amount that would have to be invested on the valuation date so the amount invested plus investment earnings will provide sufficient assets to pay total future benefits when due.

The actuarial present value was calculated as part of an actuarial valuation at July 1, 2016. Significant actuarial assumptions used include: a gross investment return rate of present and future assets of 7.5% compounded annually, (7.0% plus 0.50% for expenses); projected salary increases of 3.75% per year compounded annually, attributable to general wage increases; additional projected salary increases attributable to seniority/merit, up to 6.25% per year, depending on service and employee classification, and; 1.00% per year attributable to postretirement benefit increases.

At June 30, 2016, the unfunded actuarial liability (UAAL) for the PERSI Base Plan, on a current contribution basis, was \$2.2 billion with an amortization period of 36.6 years, which is in excess of the 25 year maximum allowed by statute. This will require that the Board act to increase contribution rates. The UAAL differs from the Net Pension Liability (NPL) in that the long-term expected rate of return for the UAAL was 7.0%, or 7.5% reduced by .4% for expected investment expenses and .1% for expected administrative expenses. This is in contrast to the discount rate used to determine the Total Pension Liability (TPL) and NPL for purposes of GASB reporting. According to GASB Statement 67, the discount rate used to calculate TPL and NPL must be net of investment expenses but not administrative expenses. Therefore, TPL and NPL have been determined using a discount rate of 7.10%.

	P 	ERSI Base Plan 2016	FRF 2016	JRF 2016
Total pension liability Plan fiduciary net position	\$	15,911,317,335 13,884,163,748	\$ 291,820,746 345,569,149	\$ 99,229,007 75,448,639
Employers' net pension liability (asset)	\$	2,027,153,587	\$ (53,748,403)	\$ 23,780,368
Plan fiduciary net position as a percentage of total pension liability		87.26%	118.42%	 76.03%

#### **ECONOMIC CONSIDERATIONS**

The System operates within a dynamic economic environment, as do all investment funds. The objective of the Retirement Board is to minimize the effect of these external influences, where possible, by diversifying among a broad range of asset classes and investment management styles, both domestically and internationally. Such diversification, combined with prudent management by experienced investment professionals, increases the probability the earnings objective will be achieved. The investment return for Fiscal Year 2016 was 1.78% gross, 1.48% net of investment expenses, and 1.43% net of all expenses.

Defined benefit pension systems plan for and make decisions based on the long term (20 to 25 year) nature of pension funding and benefits. PERSI is funded on a sound actuarial basis, which protects future benefits for participants. Over the long-term, the Plan's investment assets have exceeded their expected returns. Short-term fluctuations in investment performance make good headline news, but are much less important when viewed in the long range context of pension plans. Sound investment strategies that are, in the words of CIO Bob Maynard, "Simple, Transparent, Focused, and Patient" along with reasonable actuarial assumptions are the key ingredients to a successful, well funded pension plan.

#### **INVESTMENT STRATEGY AND POLICIES**

The Retirement Board utilizes and directs agents to provide whatever investment management and custodial functions best achieve the System's investment objectives. The Board establishes asset allocation policy, diversification guidelines, custodial functions including safe-guarding of investments, and investment guidelines and restrictions. Each money manager is generally granted full discretion in making investment decisions within their guidelines. The Board, staff, and consultants monitor and evaluate investment results. The Board, in its administration of this System and management of the investment program, is guided by the fiduciary standards in Section 59-1301 of the <u>Idaho Code</u> and the Idaho Uniform Prudent Investor Act, in Sections 68-501 through 68-514 of the <u>Idaho Code</u> and is empowered in its sole discretion to limit, control, and designate the types, kinds, and amounts of investments.

PERSI's total fund return was 1.43% net of all expenses for Fiscal Year 2016 due to a weaker investment market. The policy benchmark return is 7.0%, net of all expenses. PERSI continues to rank in the top quartile over the long term when compared to our peer universe of other state-wide public pension funds across the country.

The investment mix at fair value as of the end of Fiscal Year 2016 was 60% domestic and global equity, 13% international equity, and 27% percent fixed income. The System's investment outlook is long term, allowing the portfolio to take advantage of the favorable risk-return characteristics of equities by placing more emphasis on this category. The portfolio is broadly diversified with additional diversification achieved through domestic and international investing. See the Management's Discussion and Analysis and Investment Section of this report for more detailed analysis and information.

#### **FUNDING STATUS**

The funding objective of PERSI is to accumulate sufficient assets to ensure funds will be available to meet current and future benefit obligations to participants on a timely basis. If the level of funding is high, the ratio of assets to the actuarial accrued liability is also greater, which means better investment income potential. Each year an independent actuary engaged by PERSI calculates the amount of the annual contribution the plans must make to fully meet their obligations to their members. As of July 1, 2016, the PERSI Base Plan had an amortization period of 36.6 years and a funding ratio of 86.3% of the present value of the projected benefits earned by employees. The closed Firefighters' Retirement Fund is fully funded as of the July 1, 2016 valuation. The Judges' Retirement Fund had a funding ratio of 75.33% and amortization period of 20 years. When the amortization period exceeds the statutory limit of 25 years, the Board reviews contribution rates. The actuarial method for calculating accrued liability for all three plans is Entry Age Normal with the objective of maintaining employer contributions approximately level as a percent of member payroll. For a more in-depth discussion of PERSI's funding, see Management's Discussion and Analysis and the Actuarial Section of this report.

#### **MAJOR INITIATIVES**

PERSI's #1 priority is "Personalized Customer Service". In 2016, an independent research firm (CEM) rated PERSI's business practices against eight similar public retirement systems. The results help us improve service levels, set goals and manage costs. Here's some of what they found: PERSI's service score remains above average among our peers. Our total service score was 79 out of a possible 100, equaling the peer median. Higher service scores generally mean faster turnaround times, more availability, more choice and higher quality. Key areas that affect our service score include paying benefits on-time, processing new retirees, secure website capability, and prompt call center service. Our administrative cost per member was \$79. This was \$48 below the peer average of \$127. This data reflects PERSI's commitment to providing excellent customer service while controlling costs. Our attention to customer service has always been our calling card, and PERSI leadership continues to believe personalized customer service is essential to all generations of members. We cannot afford to have any generation ignore, tune out, or turn off the messages about the benefits of PERSI.

As in years past, key executive staff traveled to all corners of our state, meeting with legislators, employers, members, retirees, and constituency groups, and discussing issues important to PERSI and its stakeholders. PERSI is committed to ensuring that employers and their governing bodies are prepared and equipped to implement Governmental Accounting Standards Board (GASB) transparency in pension reporting standards. As the effects of the GASB rules continue to unfold, entities interested in changing public pension systems may set their sights on PERSI. We will continue to be a trusted resource in providing accurate and relevant information to lawmakers, our membership, and the public at-large.

Communication between PERSI and our employers remains a critical initiative, amid the final stages of the IRIS conversion. We continue to make progress implementing this new \$13 million pension administration system which may be the largest project ever undertaken by PERSI. With the staggering volume of member data coming into PERSI, IRIS will greatly reduce inconsistencies in payroll reporting

and improve the quality of the data used by PERSI. Every employer is now using the new system to report payroll information to PERSI. Our Employer Service Center, as well as our Education and Communication Training Unit, continues to work closely with employers, to assist in a smooth transition to the new system. As we continue with the final stages of rollout, which started in September 2016, we remain focused on pension administration functions as well as enhanced member connectivity and interface capabilities.

PERSI's educational outreach is focused on making sure members, employers and lawmakers understand and appreciate the value of the PERSI benefit. Our training staff continues to work directly with employers, engaging members earlier in their careers, and providing expanded workshop offerings explaining the value of the PERSI benefit. We are committed to providing on-location workshops for members in every county of Idaho in 2016, and are on track to meet that goal. Technology has a place in our outreach, so long as it strengthens but never replaces in-person efforts. We will continue to evaluate but only utilize automation if we believe it provides increased value.

The PERSI fund remains stable even during times of "tepid" market returns, thanks in no small part to the wisdom of the Idaho Legislature. Idaho statute has measures in place that keep required contributions to the fund set at a rate that will sustain the fund during less than stellar market years. If a contribution rate increase becomes necessary, the earliest implementation would take place in January 2018. Historically, the PERSI Board has exercised an additional grace period to align rate increases with the State fiscal year budget, which would push implementation out to July 2018.

#### **ACKNOWLEDGMENTS**

This financial report of the Public Employee Retirement System of Idaho was prepared by staff under the leadership of the Retirement Board. It is intended to provide complete and reliable information as a basis for making management decisions, as a means of determining compliance with legal provisions, and as a method of determining responsible stewardship for the assets contributed by the members and their employers.

This report is being sent to the Governor, State Legislators, and other interested parties.

Respectfully submitted,

Jody B. Olson, Chairman

Donald D. Drum, Executive Director

Alex Simpson, Financial Executive Officer



Helping Idaho public employees build a secure retirement.



#### INDEPENDENT AUDITOR'S REPORT

To the Retirement Board **Public Employee Retirement System of Idaho**Boise, Idaho

#### **Report on the Financial Statements**

We have audited the accompanying financial statements of the pension and other trust funds of the Public Employee Retirement System of Idaho (the System), which comprise the statement of plan fiduciary net position as of June 30, 2016, and the related statement of changes in plan 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.

#### **Auditor's 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 and the standards applicable to financial audits contained in Government Auditing Standards, issued by the Comptroller General of the United States. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free from material misstatement.

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

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

#### Opinion

In our opinion, the financial statements referred to above present fairly, in all material respects, the respective financial position of the Public Employee Retirement System of Idaho, as of June 30, 2015, and the respective changes in plan fiduciary net position for the year then ended in accordance with accounting principles generally accepted in the United States of America.

#### **Report on Summarized Comparative Information**

We have previously audited the Public Employee Retirement System of Idaho's June 30, 2015 financial statements, and we expressed an unmodified audit opinion on those audited financial statements in our report dated October 15, 2015. In our opinion, the summarized comparative information presented herein as of and for the year ended June 30, 2015 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 and required supplementary information on pages 21-28 and 56-63 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 basic financial statements in an appropriate operational, economic, or historical context. We have applied certain limited procedures to the required supplementary information in accordance with auditing standards generally accepted in the United States of America, which consisted of inquiries of management about the methods of preparing the information and comparing the information for consistency with management's responses to our inquiries, the basic financial statements, and other knowledge we obtained during our audit of the basic financial statements. We do not express an opinion or provide any assurance on the information because the limited procedures do not provide us with sufficient evidence to express an opinion or provide any assurance.

#### Other Information

Our audit was conducted for the purpose of forming opinions on the financial statements that collectively comprise the System's basic financial statements as a whole. The introductory, investment, actuarial and statistical sections are presented for purposes of additional analysis and are not a required part of the financial statements.

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

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

#### Other Reporting Required by Government Auditing Standards

In accordance with *Government Auditing Standards*, we have also issued our report dated October 11, 2016, on our consideration of the System's internal control over financial reporting and on our tests of its compliance with certain provisions of laws, regulations, contracts, and grant agreements and other matters. The purpose of that report is to describe the scope of our testing of internal control over financial reporting and compliance and the results of that testing, and not to provide an opinion on internal control over financial reporting or on compliance. That report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering System's internal control over financial reporting and compliance.

October 11, 2016

Boise, Idaho

#### PUBLIC EMPLOYEE RETIREMENT SYSTEM OF IDAHO

## MANAGEMENT'S DISCUSSION AND ANALYSIS YEAR ENDED JUNE 30, 2016

Management is pleased to provide Management's Discussion and Analysis ("MD&A") of the financial activities of the Public Employee Retirement System of Idaho (the "System" or "PERSI") as of and for the year ended June 30, 2016. The June 30, 2015 amounts are combined and are provided for comparative purposes. This overview and analysis is designed to focus on current known facts and activities and resulting changes.

The System administers seven fiduciary funds. These consist of three defined benefit pension trust funds – the PERSI Base Plan, the Firefighters' Retirement Fund (FRF) and the Judges' Retirement Fund (JRF), two defined contribution pension trust funds – the PERSI Choice Plan 401(k) and 414(k), and two Sick Leave Insurance Reserve trust funds – State and Schools.

#### Financial Highlights

• The net position for all pension and other funds administered by the System decreased \$40.6 million during Fiscal Year 2016 and increased \$262 million during the Fiscal Year 2015. The decrease in the defined benefit plans reflects the total of contributions received and an investment return less than benefits paid and administrative expenses. Changes in net position for the years ended June 30, 2016 and 2015 were as follows:

	2016	_	2015
PERSI Base Plan	\$ (70,539,031)	\$	126,304,090
FRF	(7,246,721)		641,556
JRF	(1,018,991)		76,467,630
PERSI Choice Plan 414(k)	(5,035,147)		(3,304,865)
PERSI Choice Plan 401(k)	33,746,842		45,142,722
Sick leave - state	5,140,646		7,519,824
Sick leave - schools	4,376,818		9,159,619
	_		_
Total increase (decrease) in plan net position	\$ (40,575,584)	\$	261,930,576

Assets for the three defined benefit plans, the PERSI Base Plan, FRF and JRF, are pooled for investment purposes. For the Fiscal Years ended June 30, 2016 and 2015, the rate of return net of investment expenses on the investment assets are detailed below (these are plan-level returns). For the defined contribution plans, the PERSI Choice Plan 401(k) and 414(k), individual participant returns will vary depending on their specific investment choices. Returns for Choice Plan options can be found on the PERSI website under investments/Choice Plan.

	2016	2015
PERSI Defined Benfit Plans	1.5%	2.7%
Sick Leave Insurance Reserve Fund	1.8%	3.8%

 All of the plans experienced investment gains in Fiscal Year 2016 as a result of positive market performance. Net investment income for all of the funds administered by the System for the Fiscal Years ended June 30, 2016 and 2015, was \$228 million and \$417 million, respectively.

	2016	2015		
PERSI Base Plan	\$ 204,778,070	\$	371,080,117	
FRF	5,083,454		9,357,909	
JRF	1,092,130		2,049,895	
PERSI Choice Plan 414(k)	866,171		1,677,651	
PERSI Choice Plan 401(k)	8,855,749		18,620,191	
Sick leave - state	3,356,390		5,722,685	
Sick leave - schools	3,919,755		9,043,823	
Total net investment income	\$ 227,951,719	\$	417,552,271	

• As of June 30, 2016 the net pension liability (asset) was as follows:

	PERSI Base Plan	FRF	JRF
	2016	2016	2016
Total pension liability Plan fiduciary net position	\$ 15,911,317,335	\$ 291,820,746	\$ 99,229,007
	13,884,163,748	345,569,149	75,448,639
Net pension liability (asset)	\$ 2,027,153,587	\$ (53,748,403)	\$ 23,780,368
Plan net position as a percentage of total pension liability	87.26%	118.42%	76.03%

The System's funding objective is to meet long-term benefit obligations through contributions and investment income and provide a reserve against market fluctuations. The ratio listed above gives an indication of how well this objective has been met at a specific point in time. The higher the ratio, the better the plan is funded.

PERSI assumed the administration for the JRF fund starting July 1, 2014.

#### **Using the Annual Financial Report**

This discussion and analysis is intended to serve as an introduction to the System's financial statements. The financial section is comprised of four additional components: (1) fund financial statements, (2) notes to financial statements, (3) required supplementary information, and (4) additional supplementary schedules.

Fund Financial Statements — There are two financial statements presented for the fiduciary funds. The statements of plan net position as of June 30, 2016 and 2015 indicates the net position available to pay future benefits and gives a snapshot at a particular point in time. The statements of changes in plan net position for the years ended June 30, 2016 and 2015 provides a view of the current year's activity. It details the additions and deductions to the individual funds and supports the change to the prior year's ending net position on the statement of fiduciary net position. All pension fund statements are presented on a full accrual basis and reflect all trust activities, as incurred.

Notes to Financial Statements — The notes provide additional information essential for a full understanding of the data provided in the fund financial statements. The notes to the financial statements can be found on pages 33-55 of this report.

Required Supplementary Information — The required supplementary information consists of Schedule of Net Pension Liability, Schedule of Changes in Net Pension Liabilities, Schedule of Contributions, Schedule of Investment Returns and related notes concerning the methods and assumptions used in calculations of actuarially determined contributions.

Additional Supplementary Schedules — The additional schedules (Schedule of Investment Expenses and Schedule of Administrative Expenses) are presented for additional analysis.

#### **Comparative Financial Statements**

Defined Benefit Pension Trust Funds — The PERSI Base Plan, the Firefighters' Retirement Fund, and the Judges' Retirement Fund are qualified plans under Internal Revenue Code and provide retirement, disability and death benefits to the employees of affiliated employers. Benefits are funded by member and employer contributions and by earnings on investments. Assets for these plans are pooled only for investment purposes.

#### **Defined Benefit Pension Trust Funds Net Position**

	As of June 30, 2016	As of June 30, 2015	\$ Change	% Change	
Assets:					
Cash and cash equivalents	\$ 4,040,182	\$ 3,568,905	\$ 471,277	13.2%	
Investments sold receivable	167,859,370	111,457,406	56,401,964	50.6%	
Other receivables	48,753,444	51,792,373	(3,038,929)	-5.9%	
Investments - at fair value	14,344,593,357	14,428,374,876	(83,781,519)	-0.6%	
Prepaid retiree benefits	64,755,500	61,531,000	3,224,500	5.2%	
Capital assets - net of					
accumulative depreciation	11,791,827	9,707,788	2,084,039	21.5%	
Due from other plans	11,299	13,737	(2,438)	-17.7%	
Total assets	14,641,804,979	14,666,446,085	(24,641,106)	-0.2%	
Liabilities:					
Investment purchased payable	286,890,388	232,707,110	54,183,278	23.3%	
Benefits and refunds payable	309,960	209,765	100,195	47.8%	
Other liabilities	12,880,302	13,000,138	(119,836)	-0.9%	
Total liabilities	300,080,650	245,917,013	54,163,637	22.0%	
Net Dealler					
Net Position:	44 704 007	0.707.700	0.004.000	04 50/	
Net investment in capital assets	11,791,827	9,707,788	2,084,039	21.5%	
Amounts held in trust	14,329,932,502	14,410,821,284	(80,888,782)	-0.6%	
Net Position	\$ 14,341,724,329	\$ 14,420,529,072	\$ (78,804,743)	-0.5%	

The fair value of investments decreased due to the combination of contributions received and an investment return of 1.48% (net of investment expenses) exceeded by benefits and administrative expenses. Liabilities for benefits and refunds payable vary at Fiscal Year-end depending on member request and timing. Change in asset values and timing of payments can affect the balance of liabilities at the statement of fiduciary net position date.

The percent change in investments sold receivable and investments purchased payable fluctuates as the volume of trading activity by the System's professional investment managers' changes. The cash balance change was due to normal fluctuations in operating cash requirements and the timing of transfers to investment managers.

#### **Defined Benefit Pension Trust Funds Changes in Net Position**

	As of	As of		<b>(* O</b> le		0/ 01	
	 une 30, 2016		une 30, 2015	\$ Change		% Change	
Additions:							
Member contributions	\$ 221,497,019	\$	212,104,025	\$	9,392,994	4.4%	
Employer contributions	346,179,284		336,141,518		10,037,766	3.0%	
Investment income	210,953,654		382,487,921		(171,534,267)	-44.8%	
Other additions	27,854		18,830		9,024	47.9%	
Total additions	778,657,811		930,752,294		(152,094,483)	-16.3%	
Deductions:							
Benefits and refunds paid	850,463,930		796,519,404		53,944,526	6.8%	
Adminsitrative expenses	6,998,624		6,683,914		314,710	4.7%	
Total deductions	857,462,554		803,203,318		54,259,236	6.8%	
Special Item: Transfer in of Judges' Retirement							
Fund			75,864,300		(75,864,300)		
Changes in net position	\$ (78,804,743)	\$	203,413,276	\$	(282,218,019)		

Investment income for the Fiscal Year 2016 was \$211 million as a result of the gross investment return of 1.78%. Contributions and other additions totaled \$568 million. Total additions including investment income, contributions and transfers totaled \$779 million. The benefits and administrative expenses paid of \$857 million were more than additions by \$79 million for 2016. Investment income for the Fiscal Year 2015 was \$382 million, the gross investment return was 3%. Contributions and other additions totaled \$548 million resulting in total additions of \$931 million. The transfer of the JRF funds to PERSI totaled \$76 million. The benefits and administrative expenses paid of \$803 million were less than additions by \$203 million for 2015.

For Fiscal Year 2016, the increase in benefits and refunds paid was a result of an increase in the number of retirees and the annual Cost of Living Adjustment (COLA) increase for benefits paid to retirees. The COLA adjustment for 2016 was .2% up to 1% based on date of retirement compared to 2015 which was 1.7% up to 4% based on date of retirement.

#### **Defined Contribution Pension Trust Funds**

During Fiscal Year 2016, the System administered two defined contribution plans. The PERSI Choice Plans, qualified plans under Internal Revenue Code, consist of a 401(k) plan and a 414(k) plan and provide another retirement benefit option to members of the Defined Benefit Pension Plans.

The PERSI Choice Plans were created during Fiscal Year 2001. The 401(k) Plan consists of employee voluntary contributions, rollover contributions, and some employer matching contributions. The 414(k) Plan represents the gain sharing allocation made to eligible PERSI members during Fiscal Year 2001. The assets of these plans are pooled for investment purposes, but the 414(k) Plan cannot be used to pay the benefits of the 401(k) Plan and vice versa.

#### **Defined Contribution Pension Trust Funds Net Position**

	Jı	As of une 30, 2016	As of June 30, 2015		\$ Change		% Change	
Assets:								
Cash	\$	281,590	\$	513,130	\$	(231,540)	-45.1%	
Short-term investments		811,780		824,942		(13,162)	-1.6%	
Investments-at fair value		716,995,107		688,598,067		28,397,040	4.1%	
Receivables		2,373,428		1,798,384		575,044	32.0%	
Total assets		720,461,905		691,734,523		28,727,382	4.2%	
Liabilities								
Other liabilities		167,483		151,796		15,687	10.3%	
Net Position	\$	720,294,422	\$	691,582,727	\$	28,711,695	4.2%	

Net position increased from Fiscal Year 2015 to Fiscal Year 2016. The change reflects a positive return in the investment market and excess contributions compared to benefits paid out. The change in cash is due to the timing of a transfer of funds at the end of the month. Receivables include contributions that are not yet recorded by the record keeper at year end plus accrued interest and dividends. The change in other liabilities consists of amount due to the base plan and advanced revenue.

#### **Defined Contribution Pension Trust Funds Changes in Net Position**

	Ju	As of une 30, 2016	As of June 30, 2015		\$ Change		% Change	
Additions:								
Member contributions	\$	45,299,030	\$	42,874,459	\$	2,424,571	5.7%	
Employer contributions		4,778,923		5,166,873		(387,950)	-7.5%	
Transfers and rollovers in		11,868,500		14,575,338		(2,706,838)	-18.6%	
Investment income		9,721,920		20,297,842		(10,575,922)	-52.1%	
Total additions		71,668,373		82,914,512		(11,246,139)	-13.6%	
Deductions:								
Benefits and refunds paid		41,363,965		40,925,161		438,804	1.1%	
Administrative Expenses		1,592,713		151,494		1,441,219	951.3%	
Total deductions		42,956,678		41,076,655		1,880,023	4.6%	
Change in net position	\$	28,711,695	\$	41,837,857	\$	(13,126,162)	-31.4%	

The change in net position was impacted for the year by a positive investment return for the fiscal year. Member contributions increased due to an increase in salary deferrals as well as an increase in the number of members actively contributing. Transfers in represent rollovers from other plans. Changes in employer contributions vary up or down according to individual employers' desire to match employee contributions. The increase in benefits and refunds paid is a result of an increase in the number of retirees receiving benefits. Administration costs for the current year reflect twelve months of record keeping costs that began in May 2015 (2 months in fiscal year 2015).

#### Other Trust Funds

During Fiscal Year 2016, the System administered two Sick Leave Insurance Reserve Fund (SLIRF) trusts. The PERSI SLIRF provides payment of eligible postretirement insurance premiums on behalf of retired state and public school district employees, based on accumulated unused sick leave at the time

of retirement. The Fund's contributions are financed by state agency and school district employers of the System which make up the two separate trusts which are comingled for investment purposes.

#### **Sick Leave Insurance Reserve Funds Net Position**

	J	As of une 30, 2016	J	As of une 30, 2015	\$ Change	% Change
Assets:					 <u>,                                    </u>	
Cash	\$	40,805	\$	73,870	\$ (33,065)	-44.8%
Investments-at fair value		410,625,545		401,187,919	9,437,626	2.4%
Prepaid insurance premium		1,436,628		1,388,641	47,987	3.5%
Due from other funds		1,767,238		1,701,875	65,363	3.8%
Total assets		413,870,216		404,352,305	9,517,911	2.4%
Liabilities:						
Other liabilities		38,637		38,190	447	1.2%
Net Position	\$	413,831,579	\$	404,314,115	\$ 9,517,464	2.4%

The net position increased in Fiscal Year 2016 from Fiscal Year 2015 because of positive investment returns and contributions exceeding benefits paid.

#### **Sick Leave Insurance Reserve Funds Changes in Net Position**

	Ju	As of ine 30, 2016	Jı	As of ine 30, 2015	\$ Change	% Change
Additions:						
Employer contributions	\$	20,783,321	\$	19,869,520	\$ 913,801	4.6%
Investment income		7,276,145		14,766,508	(7,490,363)	-50.7%
Other additions		1,249		764	485	63.5%
Total additions		28,060,715		34,636,792	(6,576,077)	-19.0%
Deductions:						
Benefits and refunds paid		18,438,911		17,853,009	585,902	3.3%
Administrative expenses		104,340		104,340	-	0.0%
Total deductions		18,543,251		17,957,349	585,902	3.3%
Change in net position	\$	9,517,464	\$	16,679,443	\$ (7,161,979)	-42.9%

The changes in net position reflect a net investment return of 1.8% resulting in \$7 million in investment income, compared to \$15 million for Fiscal Year 2015. The increase in other additions was due to a increase in interest earnings on the cash balance held at the Idaho State Treasurer's Office.

#### Plan Membership

This table reflects PERSI Base Plan and PERSI Choice Plans membership at the beginning and end of the Fiscal Year.

#### **Changes in Plan Membership**

-	2016	2015	Change
Active participants	68,517	67,008	1,509
Vested - Base Plan	42,414	43,043	(629)
Non-vested - Base Plan	26,103	23,965	2,138
Retirees and beneficiaries	44,181	42,657	1,524
Terminated and vested	12,251	11,859	392
		Choice Plan	
-	2016	2015	Change
Participants	37,738	41,937	(4,199)
Actively contributing	15,381	12,832	2,549
Periodic installment payments	1,979	144	1,835

While the above table reflects changes in active participants, the following table demonstrates the changes in Base Plan retirees and beneficiaries during the period.

#### Changes in Retirees and Beneficiaries (Base Plan)

	2016	2015
Beginning - July 1	42,657	40,776
New Retirements	2,634	2,889
Death of Beneficiary	(1,110)	(1,008)
Ending - June 30	44,181_	42,657

#### **Investment Activities**

Long-term (20-25 year) asset growth is vital to the Defined Benefit Plans' current and continued financial stability. Therefore, trustees have a fiduciary responsibility to act with prudence and discretion when making plan investment decisions. To assist the Board in this area, a comprehensive formal investment policy is updated periodically. As managers are added, specific detailed investment guidelines are developed, adopted, and become part of that manager's agreement.

Portfolio performance is reviewed monthly by the Board and its consultants. Performance is evaluated individually, by money manager style, and collectively by investment type and for the aggregate portfolio. Investment types include both domestic and international equities, domestic and international fixed income, private equity and real estate.

#### **Economic Factors**

At July 1, 2016, PERSI's Base Plan had a net pension liability of \$2 billion, an increase over the July 1, 2015 liability of \$1.3 billion. The investment return net of all expenses for 2016 was 1.43% compared to the assumed return of 7.0%. The change in net pension liability is due in large part to a decline in the investment market. These results and decisions enable PERSI to meet the mandate set by the

legislature when it created PERSI to "Provide a secure retirement for public employees in Idaho". The amortization period of the unfunded liability for FY16 is 36.6 years which is in excess of the 25 year maximum allowed by statute. As a result the Board will be considering action to raise contribution rates. Since inception, the cumulative funding of the plan is 58% investment income, 26% employer contributions and 16% member contributions. PERSI is viewed as a well-run and conservatively managed pension plan compared to plans nationally. This reputation stems from sound decisions made by the legislature and the PERSI Board of Trustees.

The PERSI Board of Trustees has and will continue to make appropriate choices regarding investments, contributions, and actuarial assumptions with the goal of maintaining the long-term sustainability of the plan.



# STATEMENTS OF FIDUCIARY NET POSITION JUNE 30, 2016 WITH COMPARATIVE FINANCIAL INFORMATION FOR JUNE 30, 2015

			Pension Trust Fund	s	
	PERSI	Firefighters'	Judges'	PERSI C	hoice Plan
	Base Plan	Retirement Fund	Retirement Fund	414(k)	401(k)
ASSETS Cash and cash equivalents	\$ 3,437,820	\$ 85,836	\$ 516,526	\$ 81,010	\$ 200,580
			· · · · · · ·		
Investments—at fair value					
Fixed income investments					
Domestic	3,106,633,058	77,566,790	16,824,619	-	-
International	25,693,797	641,526	139,150	-	-
Idaho commercial mortgages	655,380,120	16,363,610	3,549,348	-	- 
Short-term investments	391,298,899	9,769,998	2,119,160	-	811,780
Real estate equities	462,602,229	11,550,308	2,505,319	-	-
Equity securities					
Domestic	5,908,475,835	147,523,539	31,998,583	-	-
International	2,472,067,120	61,722,871	13,387,995	-	-
Private equity	899,450,726	22,457,594	4,871,163	-	-
Mutual, collective,					
unitized funds		<u> </u>		55,184,817	661,810,290
Total investments	13,921,601,784	347,596,236	75,395,337	55,184,817	662,622,070
Receivables					
Investments sold	162,932,434	4,044,665	882,271	-	-
Administrative fee	-	-	-	-	148,046
Contributions	5,486,583	14,191	-	-	465,093
Interest and dividends	41,983,137	1,042,197	227,336	147,241	1,613,048
Total receivables	210,402,154	5,101,053	1,109,607	147,241	2,226,187
Assets used in plan operations - net	11,791,827	-	-	-	-
Due from other plans	11,299	-	-	-	-
Prepaid retiree benefits	64,755,500	_	_	_	_
Total assets	14,212,000,384	352,783,125	77,021,470	55,413,068	665,048,837
LIABILITIES					
Accrued liabilities	10,786,045	262,087	64,932	12,009	144,175
Benefits and refunds payable	309,960	-	-	-	-
Due to other plans	1,767,238	-	-	869	10,430
Advanced revenue	-	-	-	-	-
Investments purchased	278,430,600	6,951,889	1,507,899	-	-
Total liabilities	291,293,843	7,213,976	1,572,831	12,878	154,605
NET POSITION					
Net position restricted for pensions and					
amounts held in trust	\$ 13,920,706,541	\$ 345,569,149	\$ 75,448,639	\$ 55,400,190	\$ 664,894,232

See notes to Financial Statements

	Other Tru	ust Funds nce Reserve Fund	Totals				
	State	Schools	2016	2015			
\$	16,090	\$ 24,715	\$ 4,362,577	\$ 4,155,905			
	51,405,473	67,910,115	3,320,340,055	3,340,940,201			
	-	-	26,474,473	37,901,492			
	-	-	675,293,078	553,504,788			
	-	-	403,999,837	348,294,350			
	-	-	476,657,856	506,568,317			
	91,516,453	149,836,236	6,329,350,646	6,167,253,647			
	19,026,568	30,930,700	2,597,135,254	2,909,923,906			
	-	-	926,779,483	966,001,036			
			716 005 107	609 509 067			
	161,948,494	248,677,051	716,995,107 15,473,025,789	688,598,067 15,518,985,804			
		, ,	,,	,,,			
	-	-	167,859,370	111,457,406			
	-	-	148,046	-			
	-	-	5,965,867	5,751,813			
			45,012,959	47,838,944			
	-	-	218,986,242	165,048,163			
	-	-	11,791,827	9,707,788			
	535,173	1,232,065	1,778,537	1,715,612			
	412,913	1,023,715	66,192,128	62,919,641			
	162,912,670	250,957,546	15,776,137,100	15,762,532,913			
	15,235	23,402	11,307,885	11,336,453			
	-	-	309,960	209,765			
	-	-	1,778,537	1,715,612			
	-	-	-	138,059			
	15 225	- 22 402	286,890,388	232,707,110			
	15,235	23,402	300,286,770	246,106,999			
•	162 007 405	<b>0.50.004.444</b>	<b>.</b> 45 475 050 000	<b>AF 540 405 044</b>			
\$	162,897,435	\$ 250,934,144	\$ 15,475,850,330	\$ 15,516,425,914			

#### STATEMENTS OF CHANGES IN FIDUCIARY NET POSITION YEAR ENDED JUNE 30, 2016 WITH COMPARATIVE FINANCIAL INFORMATION FOR JUNE 30, 2015

				Pens	ion Trust Funds				
	PERSI		Firefighters'		Judges'		PERSI C	noice	Plan
	Base Plan	Re	tirement Fund	Ref	irement Fund		414(k)		401(k)
ADDITIONS									
Contributions									
Members	\$ 220,866,936	\$	6,329	\$	623,754	\$	-	\$	45,299,030
Employers	335,610,100		7,198,597		3,370,587		-		4,778,923
Transfers and rollovers in	 				-	_			11,868,500
Total contributions	556,477,036		7,204,926		3,994,341		-		61,946,453
Investment income									
Net appreciation (depreciation)									
in fair value of investments	(72,888,917)		(1,809,410)		(413,420)		639,034		(3,529,621)
Interest, dividends and									
other investment income	319,620,321		7,934,323		1,730,965		233,469		14,274,857
Less investment expenses	 (41,953,334)		(1,041,459)		(225,415)		(6,332)		(1,889,487)
Total investment									
income - net	204,778,070		5,083,454		1,092,130		866,171		8,855,749
Other- net	25,283		<u> </u>		2,571				-
Total additions	761,280,389		12,288,380		5,089,042		866,171		70,802,202
DEDUCTIONS									
Benefits and refunds paid to									
members and beneficiaries	825,012,765		19,476,228		5,974,937		5,378,148		35,985,817
Administrative expenses	 6,806,655		58,873		133,096	_	523,170		1,069,543
Total deductions	831,819,420		19,535,101		6,108,033		5,901,318		37,055,360
SPECIAL ITEM									
Transfer in of Judges' Retirement Fund	<u> </u>								-
INCREASE/(DECREASE) IN NET									
POSITION	(70,539,031)		(7,246,721)		(1,018,991)		(5,035,147)		33,746,842
NET POSITION									
Beginning of year	 13,991,245,572		352,815,870		76,467,630		60,435,337		631,147,390
End of year	\$ 13,920,706,541	\$	345,569,149	\$	75,448,639	\$	55,400,190	\$	664,894,232

See notes to Financial Statements

Other Trus						
Sick Leave Insurance		Totals				
State	Schools		2016		2015	
\$ 6,804,354 -	\$ - 13,978,967 -	\$	266,796,049 371,741,528 11,868,500	\$	254,978,484 361,177,911 14,575,338	
6,804,354	13,978,967		650,406,077		630,731,733	
3,420,628	4,019,000		(70,562,706)		125,306,457	
-			343,793,935		340,869,400	
(64,238)	(99,245)		(45,279,510)		(48,623,586)	
3,356,390	3,919,755		227,951,719		417,552,271	
889	360		29,103		19,594	
10,161,633	17,899,082		878,386,899		1,048,303,598	
4,980,235 40,752	13,458,676 63,588		910,266,806 8,695,677		855,449,068 6,788,254	
5,020,987	13,522,264		918,962,483		862,237,322	
<u>-</u>					75,864,300	
5,140,646	4,376,818		(40,575,584)		261,930,576	
157,756,789	246,557,326		15,516,425,914		15,254,495,338	
\$ 162,897,435	\$ 250,934,144	\$	15,475,850,330	\$	15,516,425,914	

NOTES TO FINANCIAL STATEMENTS YEAR ENDED JUNE 30, 2016

#### NOTE 1. GENERAL DESCRIPTION OF THE FUNDS

**General** — The Public Employee Retirement System of Idaho (the "System" or "PERSI") is the administrator of seven plans including three defined benefit retirement plans, the Public Employee Retirement Fund Base Plan ("PERSI Base Plan"), the Firefighters' Retirement Fund (FRF); and the Judges' Retirement Fund (JRF); and two defined contribution plans, the Public Employee Retirement Fund Choice Plans 401(k) and 414(k) ("PERSI Choice Plan"). PERSI also administers two Sick Leave Insurance Reserve Trust Funds, one for state employers and one for school district employers.

**Reporting Entity** — The System is a fiduciary fund of the State of Idaho (the "State") and is included in the State of Idaho Comprehensive Annual Financial Report. The basic financial statements of the System include the financial activities of all of the above funds. A five member retirement board (the "Board"), appointed by the Governor and confirmed by the Idaho Senate, manages the System. State law requires that two members of the Board be active PERSI members with at least ten years of service and three members who are Idaho citizens not members of the system except by reason of having served on the Board. Responsibilities of the Board include selecting the funding agents, establishing funding policy, and setting contribution rates.

**Defined Benefit Retirement Plans Administration** — The PERSI Base Plan and FRF are both cost-sharing, multiple-employer defined benefit retirement plans that provide benefits based on members' years of service, age, and highest average salary. In addition, benefits are provided for disability, death, and survivors of eligible members or beneficiaries.

Statutes governing the PERSI Base Plan are Title 59, Chapter 13 of the <u>Idaho Code</u>. Statutes governing FRF are Title 72, Chapter 14 of the <u>Idaho Code</u>.

Members become fully vested in their retirement benefits with five years of credited service (5 months for elected or appointed officials). Members are eligible for retirement benefits upon attainment of the ages specified for their employment classification. The annual service retirement allowance for each month of credited service is 2.0% (2.3% for police/firefighters) of the average monthly salary for the highest consecutive 42 months.

Effective July 1, 2014, by statute, PERSI assumed administration of the Judges' Retirement Fund (JRF). The JRF is a single employer defined benefit plan that provides benefits based on members' years of service, age and annual compensation. Statutes governing the Judges' Retirement Fund are Title 1, Chapter 20 of the Idaho Code.

JRF members, having left office or retired, are eligible for retirement benefits based on age and years of service (a minimum of four years) as specified in statute.

**Plans Membership** - State agencies, school districts, cities, counties, highway districts, water and sewer districts, and other political subdivisions contribute to the System. As of June 30, 2016 and 2015, and the number of participating employer units in the PERSI Base Plan was:



	2016	2015
Cities	152	150
School districts	163	163
Highway and water districts	131	130
State subdivisions	98	97
Counties	44	42
Other	187	184
	775	766

As of June 30, 2016 and 2015, the number of benefit recipients and members in the System consisted of the following:

	2016	2015
Members:		
Active	68,517	67,008
Terminated and vested	12,251	11,859
Retirees and beneficiaries	44,181_	42,657
	<u>124,949</u>	121,524

FRF has 22 participating employer units all consisting of fire departments also participating in PERSI. As of June 30, 2016, there were 2 active members and 521 retired members or beneficiaries, collecting benefits from FRF. The FRF covers a closed group of firefighters who were hired before October 1, 1980, and who receive benefits in addition to those provided under the Base Plan. The cost of these additional benefits is paid by FRF member and employer contributions and receipts from a fire insurance premium tax.

JRF as of June 30, 2016 had 53 active members and 93 retired members or beneficiaries collecting benefits from JRF.

**Benefits Provided** - The benefit payments for the PERSI Base Plan, FRF and JRF are calculated using a benefit formula adopted by the Idaho Legislature. The Base Plan is required to provide a 1% minimum cost of living increase per year provided the Consumer Price Index increases 1% or more. The Retirement Board has the authority to provide higher PERSI Base Plan cost of living increases to a maximum of the Consumer Price Index movement or 6%, whichever is less; however, any amount above the 1% minimum is subject to review by the Idaho Legislature.

The cost of living increase for the FRF retirees is based on the increase in the statewide average firefighter's wage for employer units who belong to the FRF plan.

Adjustments to JRF benefits are made by either the PERSI COLA as described above or by a statutory adjustment which is based on active judge's salaries. Whether the PERSI COLA or the statutory adjustment applies depend on the date the judge first assumed office, on or before July 1, 2012 and/or by whether the judge (if it was an option available) made an irrevocable election to use the PERSI COLA.

**Contributions** - The PERSI Base Plan, FRF and JRF benefits are funded by contributions from members and employers and earnings from investments. Additional FRF funding is obtained from receipts from a state fire insurance premium tax. Member and employer contributions are paid as a percentage of member compensation. PERSI Base Plan, FRF and JRF member contribution rates are determined by the Board within limitations, as defined by state law. The Board may make

periodic changes to employer and employee contribution rates (expressed as percentages of annual covered payroll) that are adequate to accumulate sufficient assets to pay benefits when due. Contributions are based on actuarial assumptions, the benefit formulas, and employee groups of the System. Costs of administering the fund are financed through the contributions and investment earnings of the System.

Level percentages of payroll normal costs are determined using the Entry Age Normal Cost Method for the PERSI Base Plan, FRF and JRF. Under the Entry Age Normal Cost Method, the actuarial present value of the projected benefits of each individual included in the actuarial valuation is allocated as a level percentage of each year's earnings of the individual between entry age and assumed exit age.

The PERSI Base Plan and the JRF Plan amortizes any net pension liability based on a level percentage of payroll. The payroll for employees covered by the PERSI Base Plan and JRF Plan was \$2,943,182,035 and \$6,076,571, respectively for the year ended June 30, 2016.

Net pension liability for FRF is the difference between the pension liability of the FRF benefits not provided by the Base Plan and the FRF assets. The payroll for active employees covered by the FRF Plans was \$193,208.

Service cost is 13.72% of covered payroll for the PERSI Base Plan. There is no service cost associated with FRF, and all contributions to FRF are available to pay benefits and reduce the net pension liability. For JRF the service cost is 51.02% of covered payroll. The Board's has elected to increase total contribution rates starting on July 1, 2017.

The Base Plan contribution rates for employees are set by statute at 60% of the employer rate for general employees and 72% for police and firefighters. As of June 30, 2016, the employee rate was 6.79% for general employees and 8.36% for police and firefighters. The employer contribution rate is set by the Retirement Board and was 11.32% for general employees and 11.66% for police and firefighters.

The total FRF employer contribution rate as of June 30, 2016 was 25.31% which includes the employer excess rate of 13.65% plus the PERSI class 2 firefighters rate of 11.66%. The FRF member rate for the year for class B is 11.45% which is 3.09% above the class 2 rate of 8.36%.

Idaho Statute 59-1394(1)(a) requires 50% of the gross receipts by the State of the tax on fire insurance premiums, as provided by Idaho Statute 41-402 is perpetually appropriated for the purpose of partially funding the benefit requirements of Chapter 14, Title 72 of the Idaho Code (Fireman's Retirement Fund).

The JRF employee contribution rate is 18.50% of the employer contribution rate as set by the Board. As of June 30, 2016, the employee contribution rate was 10.23% and the employer contribution rate was 55.28%. Active employees who have 20 or more years of service are exempt from employee contributions.

Upon termination of employment, PERSI Base Plan participants are entitled to accumulated member contributions plus interest, accrued at 2.39% from January 1, 2016 through June 30, 2016 (15.04% from July 1, 2015 through December 31, 2015) compounded monthly per annum, are refundable. Withdrawal of such accumulated contributions results in forfeiture of the member's accrued benefit; however, state law does include provisions for reinstatement of forfeited service upon repayment of the accumulated contributions plus interest.

JRF employees with less than four years of service are entitled to a refund of accumulated member contributions plus interest, accrued at 6.50% per annum.

**Defined Contribution Retirement Plans** — The PERSI Choice Plans are defined contribution retirement plans. The statute governing the PERSI Choice Plans is <u>Idaho Code</u> Title 59, Chapter 13.

The PERSI Choice Plans made up of a qualified 401(k) plan and a 414(k) plan. The assets of the two plans within the PERSI Choice Plans are commingled for investment purposes. Participants can direct their investment mix with some trading frequency restrictions. Participants have fifteen investment options: two balanced funds, four fixed income funds and eight equity funds and one specialty fund. Participants investing in the Total Return Balanced Fund and the PERSI Short-Term Investment Portfolio pay investment management fees of .27% and .11%, respectively. Since inception of the plans participants have paid investment management fees for all other options.

The 401(k) portion of the PERSI Choice Plans is open to all active PERSI members. Employees can make tax-deferred contributions up to 100% of their gross salary less deductions and subject to the Internal Revenue Service (IRS) annual contribution applicable limit for the age of the employee. The 414(k) portion of the PERSI Choice Plans was established for gain sharing allocations from the PERSI Base Plan. The gain sharing amount (if any) is based on funding levels in the Base Plan and is subject to Board approval. Eligibility for Gain Sharing requires twelve months of active PERSI Base Plan membership as defined in Idaho statutes and PERSI rules.

Participants may allocate their assets in 1% increments among the investment options; however, if no allocation preference is indicated, a default investment election to the PERSI Total Return Fund (TRF) is made. The PERSI Total Return Fund is a unitized fund comprised of investment accounts of the PERSI Base Plan.

As of June 30, 2016, there were 37,738 participants, with balances in the PERSI Choice Plans. Some of these participants are in both the 401(k) Plan and the 414(k) Plan. As of June 30, 2016, the Choice Plan 401(k) had 26,546 participants, and the Choice Plan 414(k) had 23,001.

**Optional Retirement Plan** – Certain junior colleges and university employees participate in an optional retirement plan (ORP) in accordance with the provisions of <u>Idaho Code</u> 33-107(A) and (B). For university employees who opted out of PERSI in 1993, the employer by statute pays 1.49% of ORP payroll in lieu of a withdrawal liability payment to PERSI with a payoff date of July 1, 2025. The junior colleges were paid in full as of June 30, 2011.

**Other Trust Funds** —The Sick Leave Insurance Reserve Fund (SLIRF) is classified as a trust fund. For state and school employers, unused sick leave benefits are subject to the guidance of Governmental Accounting Standard Board (GASB) Statement 16, *Accounting for Compensated Absences* prior to the time of retirement.

The SLIRF is made up of two trust funds administered by PERSI - a trust for payment of school district employee benefits and a trust for payment of state employee benefits. The statutes governing the SLIRF are <u>Idaho Code</u>, Sections 67-5333, 33-1216, 59-1365, and 33-1228.

The SLIRF is a fund that exists for the payment of unused sick leave benefits in the form of insurance premiums for state employees and school district employees who separate from service by reason of retirement. The assets of the two trusts are commingled for investment purposes. The System administers these trusts on behalf of the participating employers. Employers' contributions are a percentage of payroll collected each pay cycle and are held in trust for future benefits. The school districts and the State are responsible for any unfunded benefit obligations, respectively, through contribution rate adjustments.

School District Employees — For school district employees, the unused sick leave amount available for benefit is limited to one-half of their eligible sick leave balance and rate of compensation at retirement.

State Employees — State employees are limited to the number of allowable hours of sick leave they may use as part of the unused sick leave program as follows:

Credited Hours of State Service	Maximum Allowable Sick Leave Hours			
0-10,400 (0-5 years)	420			
10,401–20,800 (5–10 years)	480			
20,801-31,200 (10-15 years)	540			
31,201+ (15 years or more)	600			

Members may use one-half of sick leave hours accrued up to the allowable maximum multiplied by their rate of compensation at retirement.

The rate for state agency contributions was 0.65% of covered salary at June 30, 2016.

Contribution percentages are based on the number of days of paid sick leave earned during the contract year for certified teachers. The sick leave contribution rates for schools are as follows:

Days Earned	Beginning - June 30, 2006
9–10 days	1.16 %
11–14 days	1.26 %
More than 14 days	Individual rate to be set by the Retirement
	Board based on current cost and actuarial
	data and reviewed biennially.

#### NOTE 2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

**Basis of Accounting** — The System's basic financial statements are prepared utilizing the accrual basis of accounting. Employee and employer contributions are recognized as additions to net position when due and receivable, pursuant to formal commitments and statutory or contractual requirements, investment income is recognized when earned, and benefit payments and refunds and other expenses are recorded when the benefits are due and payable in accordance with the plans' terms. The pension funds are accounted for on a flow of economic resources measurement focus. The significant GASB standards affecting the System are:

- GASB Statement No. 34 Financial Statements and Management's Discussion and Analysis for State and Local Governments,
- GASB Statement No. 37, Basic Financial Statements and Management's Discussion and Analysis for State and Local Governments: Omnibus,
- GASB Statement No. 38, Certain Financial Statement Note Disclosures.

- GASB Statement No. 40, Deposit and Investment Risk Disclosures,
- GASB Statement No. 44, Economic Condition Reporting: The Statistical Section,
- GASB Statement No. 51, Accounting and Financial Reporting for Intangible Assets,
- GASB Statement No.53, Accounting and Financial Reporting for Derivative Instruments,
- GASB Statement No.67 Financial Reporting for Pension Plans,
- GASB Statement No. 69 Government Combinations and Disposal of Government Operations,
- GASB Statement No. 71 Pension Transition for Contributions Made Subsequent to the Measurement Date an amendment of GASB Statement No. 68, and
- GASB Statement No. 72 Fair Value Measurement and Application

**Investments** — The System's investments are presented at fair value. Purchases and sales are recorded at the trade date. At month end, there may be certain pending trades that were initiated by managers but not confirmed and, therefore, are not included in the fair value of investments. Investments of the PERSI Base Plan, FRF, JRF and the PERSI TRF (an option of the PERSI Choice Plan) are pooled for investment purposes as is disclosed in Note 3.

The Board utilizes and directs individual fund managers to provide whatever investment management and custodial functions the Board has determined best achieves the System's investment objectives. Each fund manager is generally granted full discretion in making investment decisions, within asset allocation policy, portfolio investment policy, specific investment guidelines and other special restrictions set by contract with the Board. The Board monitors overall investment performance and periodically evaluates the performance of each fund manager. The Board in its administration of the System and management of the investment program is guided by the Idaho Uniform Prudent Investor Act, Sections 68-501 through 68-514 of the Idaho Code and of fiduciary responsibilities in the Idaho Code, Section 59-1301, and is empowered in its sole discretion to limit, control, and designate the types and amounts of investments. The Board has adopted an investment policy including policy related to deposit and investment risks identified in GASB Statement No. 40, Deposit and Investment Risk Disclosures.

The fair value of investments is based on published market prices and quotations from major investment brokers, when available. Mortgages have been valued on the basis of their future principal and interest payments discounted at prevailing interest rates for similar instruments of matching duration. The fair value of real estate investments is based on industry practice. For recent acquisitions, cost closely approximates fair value. The fair value of longer term real estate holdings is estimated based on the System's consultant assessments and/or independent appraisals. Short-term investments are reported at fair value, when published market prices and quotations are available, or at cost plus accrued interest, which approximate fair value. The fair values of private equity limited partnership investments by their nature have no readily ascertainable market prices. Similar to real estate, cost closely approximates fair value for recent acquisitions. Thereafter, the fair values of limited partnership funds are based on the valuations as presented by the general partner, approved by the funds' advisory committee, and reviewed by consultants. Generally, the companies within a fund are valued by the general partner, taking into account many factors such as the purchase price, estimated liquidation value, significant events like initial public offerings, bankruptcies, and additional rounds of financing, and other relevant factors. Because of the lack of published market prices for these investments, the estimated fair values may differ significantly from the values that would have been used had a ready market for the investments existed. Although these differences could be material to the individual company values, private equity represents 6.6% of total investments. PERSI's real estate and commercial mortgage investments are 4.0% and 4.7%, respectively of total investments.

Investment expenses presented within the statement of changes in plan fiduciary net position do not include fees and costs for private equity investments nor does it include fees and commissions

related to public equity transactions. These fees and costs are presented, for information purposes, within the Investment Section of PERSI's Comprehensive Annual Financial Report in the Schedule of Costs for Private Equity Partnerships and the Schedule of Broker Fees and Commissions. These costs are captured within the net asset value for investments as reported in the statement of plan net position and the statement of changes in plan fiduciary net position.

The System purchases forward currency contracts for certain international investments and United States of America agency-guaranteed collateralized mortgage obligations for the purpose of enhancing liquidity, reducing transaction or other costs, or partially hedging an existing exposure. The System may incur minor recording costs for forward contracts until the settlement date. Potential future obligations for the forward contracts are not recognized until the contract expiration date.

The following is the Board's adopted asset allocation policy (adopted February 2016) as of June 30, 2016 and 2015:

Asset Class		
	2016	2015
Fixed Income	30%	30%
US/Global Equity	55%	55%
International Equity	15%	15%
Cash	0%	0%
Total	100%	100%

Use of Estimates — The preparation of the financial statements in conformity with accounting principles generally accepted in the United States of America requires management to make estimates and assumptions that affect the reported amounts of net assets and liabilities, disclosure of contingent liabilities, and the actuarial present value of accumulated plan benefits at the date of the financial statements. Actual results could differ from those estimates. The System utilizes various investment instruments. Investment securities, in general, are exposed to various risks, such as interest rate, credit, and overall market volatility. Due to the level of risk associated with certain investment securities, it is reasonably possible that changes in the values of investment securities will occur in the near term and that such change could materially affect the amounts reported in the financial statements.

Assets Used in Plan Operations — These assets represent buildings, equipment, and computer software development costs used by the System and are recorded at cost. Depreciation and amortization are calculated on the straight-line method over the estimated useful lives of the assets. The estimated useful life for buildings is 30-50 years. The estimated useful life of computer software development costs is 10-15 years. Computer and technology equipment has a 3-5 year useful life.

**Totals** — The basic financial statements include certain prior-year summarized comparative information in total. Such information does not include sufficient detail to constitute a presentation in conformity with accounting principles generally accepted in the United States of America. Accordingly, such information should be read in conjunction with the System's basic financial statements for the year ended June 30, 2015, from which the summarized information was derived.

**Reclassification** — Certain reclassifications of amounts previously reported have been made to the accompanying financial statements to maintain consistency between periods presented. The reclassification had no impact on the net increase/(decrease) in net position.

**Special Item** — Special Item consists of the transfer of the Judges Retirement Fund to PERSI. Through legislative action the administration of the JRF plan was transferred to PERSI effective July 1, 2014.

#### NOTE 3. DEPOSITS AND INVESTMENTS

#### A. Deposits

Cash and cash equivalents are deposited with various financial institutions and are carried at cost plus accrued interest. Cash balances represent operating cash accounts held by various banks and on deposit with the State Treasurer. In accordance with <u>Idaho Code</u> Sections 67-1210 and 67-1210A, the State Treasurer invests cash not needed to meet immediate obligations in the pooled Idle Short-Term Fund. Deposits are held by its agent in the State Treasurer's name. Pooled balances are available on demand. Cash deposits in other bank accounts are covered by federal depository insurance up to \$250,000. The System does not have a policy for custodial credit risk related to cash on deposit at local financial institutions.

Cash and cash equivalents	
Held by the State Treasurer	\$ 2,905,130
FDIC insured/collateralized	548,416
Uninsured and uncollateralized	909,031
Total	\$ 4,362,577

#### B. Investments

Investments of the pension trust funds are reported at fair value. See Note 2 for more details. The Board of Trustees maintains a formal Statement of Investment Policy, which addresses governing provisions and additional guidelines for the investment process. This includes policies pertaining to asset allocation and risk described in subsequent sections. Refer to Note 2 for additional asset allocation information. In fulfilling its responsibilities, the Board of Trustees has contracted with investment managers, a master global custodian, other custodians, and a cash manager. Manager contracts include specific guidelines regarding the PERSI investments under management.

The following investments, risks disclosures and rate of return do not include assets from the SLIRF or other non TRF Choice Plan options:

Derivatives
Mortgage-Backed Securities
TIPS
Custodial Credit Risk
Concentration of Credit Risk
Foreign Currency Risk

Investments at fair value as of June 30, 2016 are as follows:

Domestic fixed income	\$ 3,201,024,467
Co-mingled domestic fixed income (Sick Leave Insurance Reserve Fund)	119,315,588
International fixed income	26,474,473
Idaho commercial mortgages	675,293,078
Short-term investments	403,999,837
Real estate	476,657,856
Domestic equities	6,087,997,956
Co-mingled domestic equity (Sick Leave Insurance Reserve Fund)	241,352,690
International equities	2,547,177,986
Co-mingled international equity (Sick Leave Insurance Reserve Fund)	49,957,268
Private equity	926,779,483
Mutual, collective, and unitized funds	716,995,107
Total Investments	\$ 15,473,025,789

**Concentrations** - In line with policy, the System does not have any investments from a single issuer (excluding explicitly guaranteed governments) that represent more than 5% of the System's net assets.

**Derivatives** — Derivatives are financial obligations whose value is derived from underlying debt or equity securities, commodities, or currencies. Any derivative instruments held by PERSI are for investment purposes only and all information is disclosed within the GASB 40 footnotes. The derivatives held by PERSI are reported in the US dollar denomination. They are designed, among other things, to help investors protect themselves against the risk of price changes. In accordance with its investment policy, the System, through its external investment managers, holds investments in futures, options, and forward foreign currency contracts. Only a few selected managers are permitted to use derivatives. In every case, the types of derivatives used and limits on their use are defined in manager contracts and are monitored on an ongoing basis.

Futures contracts are contracts for delayed delivery or receipt of securities in which the seller agrees to make delivery and the buyer agrees to take delivery at a specified future date, of a specified instrument, at a specified price. Market risk arises due to market price and interest rate fluctuations that may result in a decrease in the fair value of futures contracts. Futures contracts are traded on organized exchanges and require initial margin in the form of cash or marketable securities. Each day the net change in the futures contract value is settled in cash with the exchanges. Holders of futures contracts look to the exchange for performance under the contract. Accordingly, the credit risk due to the nonperformance of counterparties to futures contracts is minimal. At June 30, 2016, the System had futures contracts with a fair value of \$(224,386) which is included in fixed income investments. Cash equivalents and short-term investments in amounts necessary to settle the futures contracts were held in the portfolio so that no leverage was employed, in accordance with the System's Statement of Investment Policy.

At June 30, 2016, the System had the following net futures contracts exposure:

	Exposure covered by contract
Cash and Cash Equivalents	•
90 Day Eurodollar	\$ 73,654,300
Euro Foreign Currency	(1,110,750)
Australian/US Dollar Currency	593,920
British Pound Foreign Currency	(414,000)
Japanese Yen Foreign Currency	(5,702,863)
Total Cash and Cash Equivalents	67,020,607
Fixed Income	
US Treasury bond	(15,510,938)
US Ultra Bond	(16,773,750)
EURO BTP (Buoni del Tesora Poliennali)	316,865
EURO BUXL 30yr Bond	(217,924)
EURO-BOBL	1,187,383
EURO-Bund	(7,426,479)
JAPAN 10yr Bond	(7,452,968)
US 10yr Treasury Note	(73,540,360)
US 5yr Treasury Note	167,975,587
US 2yr Treasury Note	18,862,219
Total Fixed Income	67,419,635
Net Futures Exposure	\$ 134,440,242

Option contracts are contractual agreements giving the purchaser the right, but not the obligation, to purchase or sell a financial instrument at a specified price within a specified time. The option's price is usually a small percentage of the underlying asset's value. Options strategies used by the System are designed to provide exposures to positive market moves and limit exposures to interest rate and currency fluctuations. At June 30, 2016, the Base Plan, TRF, JRF, and FRF had option contracts payable with a fair value of \$258,481, which is included in Domestic Fixed Income and \$(240,584) which is included in Investments Purchased.

At June 30, 2016, the System had the following net futures contracts exposure:

	•	ire covered contract
Fixed Income		
Cash/Cash Equivalents-Purchased Put Options	\$	14,863
Fixed Income-Purchased Call Options		217,430
Fixed Income-Purchased Put Options		26,188
Total Fixed Income		258,481
Investments Purchased		
Cash/Cash Equivalents-Written Call Options		(50)
Cash/Cash Equivalents-Written Put Options		(16,488)
Fixed Income-Written Call Options		(170,867)
Fixed Income-Written Put Options		(53,180)
Total Investments Purchased		(240,585)
Net Option Exposure	\$	17,896

Forward Foreign Currency Exchange Contracts are carried at fair value by the System. The System has entered into foreign exchange contracts to purchase or sell currency at various dates in the future at a specific price. Some of the System's international and real estate investment managers use forward contracts to hedge the exposure of investments to fluctuations in foreign currency. Forward foreign exchange contracts are negotiated between two counterparties. The System could sell the forward contract at a loss, or if it were to continue to hold the contract, the System may make a termination payment to the counterparty to cancel its obligation under the contract and then buy the currency on the open market. The System could also incur a loss if its counterparties failed to perform pursuant to the terms of their contractual obligations. Controls are established by the System and the investment managers to monitor the creditworthiness of the counterparties. The System's investment managers seek to control this risk through counterparty credit evaluations and approvals, counterparty credit limits, and exposure monitoring procedures. As of June 30, 2016, the System had entered into forward currency contracts to sell foreign currencies with a fair value of \$146,351,782 and had entered into forward currency contracts to buy foreign currencies with a fair value of \$145,851,078. Forward currency contracts are receivables or payables reported as investments sold or investments purchased. A net unrealized gain of \$491,293 at June 30, 2016 was recorded, which represent the gain which would occur from executing these forward foreign currency contracts.

**Mortgage-Backed Securities** — These investments are valued based on the cash flows from interest and principal payments on the underlying mortgages. As a result, they are sensitive to prepayments, which are likely to occur in declining interest rate environments, thereby reducing the value of the securities. Details regarding interest rate risk for these investments are included in the Interest Rate Risk section on pages 45 and 46.

**TIPS** — Treasury Inflation Protected Securities (TIPS) are fixed income securities issued by the U.S. Treasury that pay a fixed coupon rate plus an adjustment for subsequent inflation. At June 30, 2016, the System had invested in TIPS with a fair value of \$1,508,630,549.

#### C. Credit Risk

Credit risk is the risk that an issuer or other counterparty to an investment will not fulfill its obligations to the System. The System's investment policies requires each portfolio manager to maintain a reasonable credit risk level relative to its benchmark and provided expected credit risk exposures in their portfolio guidelines. If the actual credit risk exposure falls outside of these expectations, managers will be required to report these occurrences to Staff and these disclosures are to be made available to the Board.

As of June 30, 2016, the System's fixed income assets that are not government guaranteed represented 50.6% of the fixed income portfolio. The System's fixed income assets are shown with current credit ratings in the table on the next page.

Credit Quality S&P Rating Level	PERSI Base/ Domestic	FRF Plans International	JRF Domestic International		Total Retu Domestic	Total	
Short Term							
A-1+	\$ 42,898,315	\$ -	\$ 226,665	\$ -	\$ 1,747,020	\$ -	\$ 44,872,000
A-1	26,621,634	-	140,663	-	1,084,158	-	27,846,455
A-2	28,642,988	-	151,343	-	1,166,477	-	29,960,808
Long Term							
AAA	64,132,175	2,916,095	338,860	15,408	2,611,762	118,757	70,133,057
AA*	292,399,396	-	1,544,975	-	11,907,872	-	305,852,243
A	362,876,785	17,999,788	1,917,362	95,107	14,778,041	733,036	398,400,119
BBB	296,824,407	3,017,297	1,568,356	15,943	12,088,079	122,878	313,636,960
BB	14,839,011	1,406,227	78,406	7,430	604,314	57,269	16,992,657
В	5,792,604	-	30,607	-	235,902	-	6,059,113
CCC	6,301,707	-	33,297	-	256,635	-	6,591,639
CC	1,840,028	-	9,722	-	74,935	-	1,924,685
С	-	-	-	-	-	-	-
D	1,498,277	-	7,917	-	61,017	-	1,567,211
Not rated	225,157,109	987,467	1,189,681	5,218	9,169,452	40,214	236,549,141
Total Credit Risk fixed	1,369,824,435	26,326,874	7,237,854	139,106	55,785,664	1,072,154	1,460,386,088
income securities							
U.S. Government	2,169,996,975	-	11,465,792	-	88,372,435	-	2,269,835,202
Pooled Investments-(unrated)	39,411,893	-	208,244	-	1,605,037	-	41,225,174
Pooled Investments-SLIRF (unrated)	_		_	_		_	119,315,588
Idaho Mortgages	671,743,730	_	3,549,348	_	27,356,549	_	702,649,627
Total	\$ 4,250,977,034	\$ 26,326,874	\$ 22,461,238	\$ 139,106	\$ 173,119,685	\$ 1,072,154	\$ 4,593,411,679
=	. ,,_,	,,** * *	, , _ • •		,,	,,,	,,,

<sup>\*</sup>Total includes US Government Agencies implicitly guaranteed by US Government: FHLB \$19,951,897; FHLMC \$41,650,731; FNMA \$59,398,130

Each portfolio is managed in accordance with operational guidelines that are specific as to expected portfolio characteristics that usually, but not always, include credit quality and exposure levels. The System's investment policy requires managers to provide PERSI with expected credit risk exposures in their portfolio guidelines. If the actual credit risk exposure falls outside of these expectations, managers will be required to report these occurrences to Staff and these disclosures are to be made available to the Board.

#### D. Custodial Credit Risk

Custodial credit risk is the risk that in the event of a financial institution or bank failure, the System would not be able to recover the value of their deposits and investments that are in the possession of an outside party. The System mitigates custodial credit risk by requiring in policy, to the extent possible, that investments be clearly marked as to PERSI ownership and be registered in the System's name. All securities are required to be delivered to a third-party institution mutually agreed upon by the bank and the System.

The System's cash and deposits are swept daily by the System's custodian and cash manager into short-term investment funds. Clearwater Advisors, LLC is the System's cash manager and invests the bulk of the System's cash, approximately 86.4%, in short-term instruments held at the custodian bank. Of the remaining cash and deposits at June 30, 2016, approximately 3.8% or, \$16,211,794, was held by various counterparties not in the System's name. The remainder, approximately 9.8%, is invested in custodial bank-maintained collective investment funds.

#### E. Concentration of Credit Risk

Concentration of credit risk is the risk of loss that may be attributed to the magnitude of a government's investment in a single issuer. The System's operational guidelines for investments in any corporate entity are stated in each individual manager's specific portfolio guideline.

Per the Systems Investment policy, managers will provide expected concentration of credit risk exposures in their portfolio guidelines. If the concentration of credit risk exceeds expectations, managers are required to report these occurrences to Staff and these disclosures are to be made available to the Board. For the portfolio as a whole, Staff will report to the Board at a regular Board Meeting if the exposure to a non-US government guaranteed credit exceeds 5% of the System's invested assets.

#### F. Interest Rate Risk

Market or interest rate risk is the greatest risk faced by an investor in the debt securities market. The price of a debt security typically moves in the opposite direction of the change in interest rates. Interest rate risk is the risk that changes in interest rates will adversely affect the fair value of an investment. This risk is managed within the portfolio using the effective duration methodology. The methodology takes into account optionality on bonds and scales the risk of price changes on bonds depending upon the degree of change in rates and the slope of the yield curve. All of the System's fixed income portfolios are managed in accordance with operational guidelines which include an expected range of interest rate risk in the portfolio. Per the System's investment policy, managers will provide PERSI with the expected portfolio duration in their portfolio guidelines. If the duration of the portfolio differs from expectations, managers are to be required to report these occurrences to Staff and these disclosures are to be made available to the Board. The reporting of effective duration found in the tables that follow quantifies the interest rate risk of the System's fixed income assets. Some of the large durations are due to the use of options and forward foreign currency contracts. For line items below reported as "N/A," the duration calculation is not available. A negative duration can occur when floating rate securities trade at a discount.

Effective duration of domestic fixed income assets by security type:

	<b>Effective</b>	Fair Value Allocations							
Investment	Duration in Years	PE	RSI Base/FRF Plans	Ju	dges' Plan	Tota	Total Return Fund		Total
Asset-backed Securities	0.11	\$	5,292,848	\$	27,966	\$	215,550	\$	5,536,364
Asset-backed Securities	N/A		1,874,249		9,904		76,328		1,960,481
Mortgages	1.01		15,761,401		83,280		641,878		16,486,559
Mortgages	N/A		2,494,833		13,182		101,601		2,609,616
Commercial Paper	0.20		55,287,938		292,129		2,251,584		57,831,651
Corporate Bonds	7.44		816,572,218		4,314,589		33,254,643		854,141,450
Corporate Bonds	N/A		862,085		4,556		35,108		901,749
Fixed Income Derivatives	(257.47)		75,161		397		3,061		78,619
Fixed Income Derivatives	N/A		(71,855)		(380)		(2,926)		(75,161)
Government Agencies	2.73		70,450,070		372,243		2,869,057		73,691,370
Government Agencies	N/A		278,238		1,470		11,332		291,040
Government Bonds	7.30		728,431,788		3,848,875		29,665,152		761,945,815
Government MBS*	(0.18)		163,622,196		864,544		6,663,462		171,150,202
Government MBS*	N/A		12,584,761		66,495		512,510		13,163,766
Pooled Investments	0.08		39,411,893		208,244		1,605,037		41,225,174
Pooled Investments-									
SLIRF Domestic Fixed									
Income Fund	N/A		N/A		N/A		N/A		119,315,588
Private Placements	5.83		107,214,600		566,499		4,366,280		112,147,379
Private Placements	N/A		116,817,131		617,236		4,757,340		122,191,707
TIPS	7.83		1,442,273,749		7,620,661		58,736,139		1,508,630,549
Idaho Mortgages	N/A		671,743,730		3,549,348		27,356,549		702,649,627
Total		\$	4,250,977,034	\$	22,461,238	\$	173,119,685	\$	4,565,873,545

#### Effective duration of international fixed income assets by security type:

Asset Backed Securities	0.64	\$ 199,784	\$ 1,056	\$ 8,136	\$ 208,976
Asset Backed Securities	N/A	47,694	252	1,942	49,888
Corporate Bonds	2.75	1,299,128	6,864	52,907	1,358,899
Government Bonds	6.41	 24,780,268	130,934	1,009,169	25,920,371
					_
Total		\$ 26,326,874	\$ 139,106	\$ 1,072,154	\$ 27,538,134

#### G. Foreign Currency Risk

Foreign currency risk is the risk that changes in currency exchange rates will adversely impact the fair value of an investment. The System's currency risk exposures, or exchange rate risk, primarily reside within the international equity investment holdings. The System expects the managers of these holdings to maintain adequately diversified portfolios to limit foreign currency risk. Per the System's investment policy, the individual manager guidelines will outline the expected current exposures (either specifically or through ranges of security exposures to particular currency areas) of the underlying portfolio and if the actual currency exposure differs from the expected, managers are to be required to report these occurrences to Staff and these disclosures are to be made available to the Board. Currency gains and losses will result from exchange rate fluctuations. The System's exposure to foreign currency risk expressed in U.S. dollars as of June 30, 2016, is highlighted in the table that follows. Negative fair values related to variable-rate debt instruments that are highly sensitive to changes in interest rates.



CURRENCY		hort-term vestments	Equity	Fixed Income	Total USD Equivalent Fair Value
AUSTRALIAN DOLLAR	\$	941,797 \$	48,474,859	\$ -	\$ 49,416,656
BRAZIL REAL	*	(99,151)	83,331,402	1,461,817	84,694,068
CANADIAN DOLLAR		(2,735,616)	32,177,830	3,175,204	32,617,418
CHILEAN PESO		28	6,642,091	-	6,642,119
CHINESE YUAN RENMINBI		(3,392,445)	-	563,772	(2,828,673)
COLOMBIAN PESO		24,549	2,357,780	-	2,382,329
CZECH KORUNA		117	860,916	-	861,033
DANISH KRONE		26,582	31,247,116	-	31,273,698
EGYPTIAN POUND		84,128	1,606,741	-	1,690,869
EURO CURRENCY UNIT		(3,464,759)	531,136,938	1,224,249	528,896,428
HONG KONG DOLLAR		1,329,735	277,952,351	-	279,282,086
HUNGARIAN FORINT		191,194	10,976,954	-	11,168,148
INDIAN RUPEE		1,894,192	-	-	1,894,192
INDONESIAN RUPIAH		22,352	18,558,604	-	18,580,956
ISRAELI SHEKEL		47,242	4,800,537	-	4,847,779
JAPANESE YEN		873,917	317,932,500	(46,128)	318,760,289
KENYAN SHILLING		(13, 169)	2,965,434	-	2,952,265
MALAYSIAN RINGGIT		18,111	24,034,960	-	24,053,071
MEXICAN NEW PESO		(9,017,595)	38,428,147	12,051,066	41,461,618
MOROCCAN DIRHAM		-	863,565	-	863,565
NEW TAIWAN DOLLAR		167,293	122,914,095	-	123,081,388
NEW ZEALAND DOLLAR		2,479	772,473	-	774,952
NORWEGIAN KRONE		54,181	2,670,936	-	2,725,117
PHILIPPINES PESO		24,503	14,406,594	-	14,431,097
POLISH ZLOTY		(3,367,926)	7,540,065	5,352,771	9,524,910
POUND STERLING		(805, 376)	421,734,416	1,706,285	422,635,325
ROMANIAN LEU		47,639	150,762	-	198,401
RUSSIAN RUBLE (NEW)		20,233	15,315,737	1,040,409	16,376,379
S AFRICAN COMM RAND		257	33,180,484	-	33,180,741
SINGAPORE DOLLAR		109,908	70,341,200	-	70,451,108
SOUTH KOREAN WON		11,321	222,662,365	-	222,673,686
SRI LANKA RUPEE		15,320	271,478	-	286,798
SWEDISH KRONA		32,110	41,538,450	-	41,570,560
SWISS FRANC		2,200,934	145,076,731	-	147,277,665
THAILAND BAHT		19,977	30,103,154	-	30,123,131
TURKISH LIRA		69,820	27,442,212	-	27,512,032
Total value of investments to					
foreign currency risk	\$	(14,666,118) \$	2,590,469,877	\$ 26,529,445	\$ 2,602,333,204

#### H. Rate of Return

For the years ended June 30, 2016 and 2015, the annual money-weighted rate of return on pension plan investments, net of pension plan investment expense, was 1.51 percent and 2.75 percent, respectively. The money-weighted rate of return expresses investment performance, net of investment expense, adjusted for the changing amounts actually invested.

#### **NOTE 4. FAIR VALUE**

GASB Statement No. 72, Fair Value Measurement and Application, (Statement 72) specifies a hierarchy of valuation classifications based on whether the inputs to the valuation techniques used in each valuation classification are observable or unobservable. These classifications are summarized in the three broad levels listed below:

Level 1-Unadjusted quoted prices for identical instruments in active markets, that the reporting entity has the ability to access at the measurement date.

Level 2-Quoted prices for similar instruments in active markets; quoted prices for identical or similar instruments in markets that are not active; and model-derived valuations in which all significant inputs and significant value drivers are directly or indirectly observable. Examples would be matrix pricing, market corroborated pricing and inputs such as yield curves and indices.

Level 3-Valuations derived from valuation techniques in which significant inputs or significant value drivers are unobservable and may rely on the reporting entity's own assumptions, but the market participant's assumptions that may be used in pricing the asset or liability

Inputs used to measure fair value might fall in different levels of the fair value hierarchy, in which case the Plan defaults to the lowest level input that is significant to the fair value measurement in its entirety. These levels are not necessarily an indication of the risk or liquidity associated with the investments. In determining the appropriate levels, the Plan performed a detailed analysis of the assets and liabilities that are subject to Statement 72.

The following table presents fair value measurements as of June 30, 2016:

			Fair Value Measurements Using							
	6/30/2016		Quoted Prices in Active Markets for Identical Assets (Level 1)		Significant Other Observable inputs (Level 2)		Significant Unobservable Input (Level 3)			
Instruments by fair value level										
Short Term Securities	\$	117,641,924	\$	-	\$	117,641,924	\$	-		
Fixed Income Securities:										
U.S. Government		2,287,923,784		2,272,789,590		15,134,194		-		
Asset backed-Securitized		338,619,744		-		337,712,888		906,857		
Corporate		726,379,629		-		726,379,629		-		
Idaho Mortgages		702,649,627		-		702,649,627		-		
Non-U.S. Government		154,307,250		-		154,048,386		258,864		
Total Fixed Income Securities		4,209,880,035		2,272,789,590		1,935,924,724		1,165,720		

Fair Value Measurements Using Quoted Prices in Active Markets for Significant Other Significant Identical Assets Observable inputs Unobservable Inputs 6/30/2016 (Level 1) (Level 2) (Level 3) **Equities:** Domestic 5.540.232.982 5.540.232.982 Developed Markets 2.156.332.878 2.156.332.878 **Emerging Markets** 1,221,209,021 1,220,365,947 843.074 **Total Equities** 8,917,774,881 8,916,931,807 843,074 Preferred Securities 61,773,997 44,859,861 3,581,217 13,332,919 Convertible or Exchangeable Securities 1,550,016 150,880 1,700,896 **Futures** (224,386)(224,386)60,569,003 Mutual Funds-Defined Contribution investment options 60,569,003 Total investments by fair value level\* 13,369,116,349 \$ 11,294,925,875

<sup>\*</sup> The Total Return Fund and Short Term Investment Portfolio are unitized Defined Contribution investment options included with the Equity and Fixed Income totals above

Investment was a second of the met are described (MAN)	Fair Value		Unfunded ommitments	Redemption	Padamatian Nation
Investments measured at the net asset value (NAV)	rair value	communents		Frequency	Redemption Notice
Private Equity Partnerships:	07 400 270	•	4 420 400	NI/A	NI/A
Growth Equity	27,120,379	\$	1,432,406	N/A	N/A
Corporate Finance/Buyout	711,465,510		412,324,949	N/A	N/A
Distressed Debt	44,527,963		16,412,532	N/A	N/A
Co/Direct Investment	58,683,821		33,197,752	N/A	N/A
Secondaries	19,519,328		63,239,251	N/A	N/A
Venture Capital	103,006,904		3,709,001	N/A	N/A
Private Real Estate:					
Open Ended Co-mingled Insurance Company separate			N/A	N/A	N/A
Affordable Housing	102,426,940		N/A	N/A	N/A
Multifamily properties (Olympic)	172,884,837		N/A	N/A	N/A
Value added apartments	65,298,107		N/A	N/A	N/A
Office/Industrial properties	170,369,301		N/A	N/A	N/A
Development properties	31,165,930		N/A	N/A	N/A
Collective Funds:					
REIT Index Collective Fund	2,291,869		N/A	Daily	None
TIPS Index Collective Fund	451,234		N/A	Daily	None
US Broad Equity Market Index Collective Fund	6,905,257		N/A	Daily	None
Emerging Equity Market Index Fund	397,560		N/A	Daily	None
US Large Cap Equity Market Index Collective Fund	18,038,413		N/A	Daily	None
US Bond Market Index Collective Fund	10,839,097		N/A	Daily	None
International Equity Index Collective Fund	5,760,266		N/A	Daily	None
US Small/Midcap Equity Index Collective Fund	11,395,890		N/A	Daily	None
Sick Leave Insurance Reserve Trust Fund					
Russell 3000 Index Co-Mingled Fund	241,352,690		N/A	Daily	Trade date less 2 days
Government Credit Bond Index Co-Mingled Fund	119,315,588		N/A	Daily	Trade date less 2 days
MSCI ACWI Ex-US Strategy Co-mingled Fund	49,957,268		N/A	Bi-Monthly	Trade date less 2 days
Total investments measured at the NAV	2,029,369,661			•	•
Total investments measured at fair value	\$ 15,398,486,010				

The Plan uses a Fair Value Hierarchy (FVH) report within the custodial reporting system that is based on asset class and utilizing a proprietary matrix. The custodian uses several third party vendors to establish pricing. When possible, secondary vendor pricing is used to check for accuracy against the primary vendor's price. The pricing vendors provide detailed pricing and reference data outlining their inputs, pricing applications, models, and methodologies. FVH reporting is reviewed and researched if inconsistencies are observed.

**Short Term Securities**: These are Level 2 and include commercial paper and other short term notes.

**Equities:** Equities at Level 1 are using quoted prices for identical securities in an active market. Level 3 equities have very limited trading volume and use the last quoted price available on the trade data.

**Fixed Income:** These securities are primarily in Level 1 and 2. Information such as sector groupings, benchmark curves, like security benchmarking, reported trades, broker/dealer quotes and other reference data are all used to assist with pricing of all types securities. Specifically, these categories used the following methodologies. *US Government* Electronic fixed income trade platform and broker feeds are used and reviewed for consistency and outliers *Asset backed/Securitized* Uses volatility-driven multi-dimensional spread tables and Option Adjusted Spread and prepayment model. *Corporate and Non US Government* Multi-dimensional relational models are used along with option adjusted spread. *Idaho Mortgages* The fair value of the commercial mortgage portfolio is calculated daily. Expected cash flows for loans are discounted with rates that are based on the U.S. Treasury yield curve. The relevant discount rates include a spread above Treasury yields that accounts for credit and liquidity risk.

<u>Mutual Funds:</u> Valued at the daily closing price as reported by the fund and reported as Level 1. Mutual funds held by the Plan are open-end mutual funds that are registered with the Securities and Exchange Commission. These funds are required to publish their daily NAV and to transact at that price. The mutual funds held by the Plan are deemed to be actively traded.

<u>Private Equity Partnerships:</u> This are reported at the Net Asset Value (NAV) and includes limited partnerships invested in the following strategies: Growth Equity, Corporate Finance/Buyout, Distressed Debt, Co/Direct Investments, Secondaries, and Venture Capital. Fair value is obtained by using a valuation provided by the General Partner, adjusting for interim cash flows and rolling forward to the measurement date of the Plan. A gatekeeper is used to monitor values, cash flows, and provide due diligence for new investments. The fair values presented may differ from actual amounts realized from these investments. On average, distributions received through the liquidation of underlying assets/investments can occur over the span of 5-15 years.

Real Estate: Real Estate Investment Trusts (REITs) are publicly traded securities and are included with Equities: Domestic, level 1, as those securities are traded in an active market. Private Real Estate These are investments owned directly or with other partnership interests and are in several general categories to include Affordable Housing, Multifamily properties, Value added apartments, Office/Industrial Properties, and Development Properties and are listed with investments measured Each property in the Portfolio is externally appraised at a minimum every year. Appraisals are completed by third-party MAI certified appraisers. For properties not subject to an external appraisal during a quarter, internal valuations are completed by AEW (the Plan's private real estate consultant) (or Pinnacle and reviewed by AEW), based on updated operational performance at the subject property and any relevant sale comparable. A discounted cash flow analysis is utilized to determine asset value. Prior to finalizing the values, Altus (an independent professional advisory with expertise in appraisals) reviews every valuation quarterly and communicates its questions/findings to AEW before approval. The valuation of the Affordable Housing properties is calculated by a third party valuation and accounting specialist in the affordable housing industry once a year at December 31st. Development properties are initially valued at their accumulated cost amounts until completion, upon which an appraisal is done. Prudential This is an open ended co-mingled insurance company separate account comprised primarily of real estate investments either directly owned or through partnership interests and mortgage and other loans on income producing real estate. Fair value is generally determined through an appraisal process that is conducted by independent appraisers within a reasonable amount of time following acquisition and no less frequently than annual thereafter. On average,

distributions received through the liquidation of underlying assets/investments can occur over the span of 5-15 years.

<u>Collective Trust Funds:</u> There are eight collective trust funds offered as investment options in the Defined Contribution Plan, reported at the Net Asset Value. The NAV is based on the value of the underlying investments. Collective Trusts are regulated, but not registered investment vehicles.

<u>Co-Mingled Funds:</u> These are the investment vehicles used for the Plan's Sick Leave Insurance Reserve Trust Fund where funds are pooled from numerous plans. They are valued at net asset value of units held at the end of the period based upon the fair value of the underlying investments.

<u>Derivatives:</u> Foreign Currency Forward Contracts use a market approach with foreign exchange rates.

#### **NOTE 5. NET PENSION LIABILITY**

The components of the net pension liability of the participating employers as of June 30, 2016 and 2015 are as follows:

	PERSI Base Plan 2016		FRF 2016	JRF 2016		
Total pension liability Plan fiduciary net position	\$	15,911,317,335 13,884,163,748	\$ 291,820,746 345,569,149	\$	99,229,007 75,448,639	
Employers' net pension liability (asset)	\$	2,027,153,587	\$ (53,748,403)	\$	23,780,368	
Plan fiduciary net position as a percentage of total pension liability		87.26%	 118.42%		76.03%	
	PERSI Base Plan 2015		FRF 2015		JRF 2015	
Total pension liability Plan fiduciary net position	\$	15,273,500,000 13,956,662,675	\$ 298,805,178 352,815,870	\$	96,851,839 76,467,630	
Employers' net pension liability (asset)	\$	1,316,837,325	\$ (54,010,692)	\$	20,384,209	
Plan fiduciary net position as a percentage of total pension liability		91.38%	118.08%		78.95%	

The net pension liability is calculated using a discount rate of 7.1%, which is the expected rate of return on investments reduced by investment expenses. The unfunded liability as reported in Management's Discussion and Analysis is calculated using 7.0%, which is the expected rate of return on investments reduced by investment and administrative costs. The net pension liability was determined by an actuarial valuation as of July 1, 2016, applied to all prior periods included in the measurement. Actuarial valuation involves estimates of the reported amounts and assumptions about the probability of occurrence of events far into the future. Amounts determined regarding the net pension liability are subject to continual revision as actual results are compared with past expectations and new estimates are made about the future. Experience studies were performed for the period 2007 through 2013 for the PERSI Base Plan; for the period 2011 through 2015 for the FRF; and 2009 through 2013 for the JRF. These studies reviewed all economic and

demographic assumptions other than mortality. Mortality and all economic assumptions were studied in 2014 for the period from July 1, 2009 through June 30, 2013 for all funds.

Actuarial Assumptions – The following are the actuarial assumptions and the entry age normal cost method, applied to all periods included in the measurement:

Actuarial Assumptions	PERSI Base Plan	FRF	JRF
Inflation	3.25 percent	3.25 percent	3.25 percent
Salary increases	4.25-10.00 percent	3.75 percent	3.75 percent
Salary inflation	3.75 percent	3.75 percent	3.75 percent
Investment rate of return *	7.10 percent	7.10 percent	7.10 percent
Cost of Living (COLA) adjustments	1.00 percent	3.75 percent	**

<sup>\*</sup>net of pension plan investment expense

Mortality rates were based on the RP - 2000 combined table for healthy males or females as appropriate with the following offsets:

- Set back 3 years for teachers
- No offset for male fire and police
- Forward one year for female fire and police
- Set back one year for all general employees and all beneficiaries

The long-term expected rate of return on pension plan investments was determined using the building block approach and a forward-looking model in which best estimate ranges of expected future real rates of return (expected returns, net of pension plan investment expense and inflation) are developed for each major asset class. These ranges are combined to produce the long-term expected rate of return by weighing the expected future real rates of return by the target asset allocation percentage and by adding expected inflation.

Even though history provides a valuable perspective for setting the investment return assumption, we rely primarily on an approach which builds upon the latest capital market assumptions. The assumptions and the System's formal policy for asset allocation are shown below. The formal asset allocation policy is somewhat more conservative than the current allocation of PERSI's assets.

The best-estimate range for the long-term expected rate of return is determined by adding expected inflation to expected long-term real returns and reflecting expected volatility and correlation.

<sup>\*\*3.75</sup> percent or 1.00 percent depending on whether the member was hired on or before July 1, 2012 and by whether the judge (if it was an option available) made an irrevocable election to use the PERSI COLA



#### **Capital Market Assumptions**

Asset Class	Expected Return <sup>*</sup>	Expected Risk	Strategic Normal	Strategic Ranges			
Equities			70%	66%-77%			
Broad Domestic Equity	9.15%	19.00%	55%	50%-65%			
International	9.25%	20.20%	15%	10%-20%			
Fixed Income	3.05%	3.75%	30%	23%-33%			
Cash	2.25%	0.90%	0%	0%-5%			
			Expected				
	Expected	Expected	Real	Expected			
Total Fund	Return <sup>*</sup>	Inflation	Return	Risk			
Actuary	7.00%	3.25%	3.75%	N/A			
Portfolio	6.58%	2.25%	4.33%	12.67%			
* Expected arithmetic return net of fees and expense	es						
Actuarial Assumptions							
Assumed Inflation - Mean				3.25%			
Assumed Inflation - Standard Deviation				2.00%			
Portfolio Arithmetic Mean Return				8.42%			
Portfolio Long-Term Expected Geometric Rate of Return							
Assumed Investment Expenses				0.40%			
Long-Term Expected Geometric Rate of	of Return, Net of Inv	estment Expen	ses	7.10%			

Discount rate — The discount rate used to measure the total pension liability was 7.10%. The projection of cash flows used to determine the discount rate assumed that contributions from plan members will be made at the current contribution rate. Based on these assumptions, the pension plans' 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 on pension plan investments was applied to all periods of projected benefit payments to determine the total pension liability. The long-term expected rate of return was determined net of pension plan investment expense but without reduction for pension plan administrative expense.

Sensitivity of the net pension liability (asset) to changes in the discount rate – The following presents the net pension liability (asset) of PERSI, FRF and JRF employers calculated using the discount rate of 7.10% as well as what the employers' liability (asset) would be if it were calculated using a discount rate that is 1-percentage point lower or 1-percentage point higher than the current rate:

	1% Decrease (6.10%)	Current Discount Rate (7.10%)	1% Increase (8.10%)
Employers' net pension liability - PERSI	\$ 3,976,555,892	\$ 2,027,153,584	\$ 406,010,297
Employers' net pension (asset) - FRF	(22,078,803)	(53,748,403)	(80,522,700)
Employers' net pension liability - JRF	33,771,642	23,780,368	15,227,356

#### NOTE 6. ASSETS USED IN PLAN OPERATIONS

Assets used in plan operations at June 30, 2016, consist of the following:

	2016	2015
Buildings and improvements Less accumulated depreciation Total buildings and improvements	\$ 5,515,888 (4,284,972) 1,230,916	\$ 5,515,888 (4,124,276) 1,391,612
Computer software development - Galena Less accumulated amortization Total computer software development - Galena	6,331,360 (6,331,360)	6,331,360 (6,331,360)
Equipment Less accumulated depreciation Total equipment	607,175 (490,204) 116,971	524,044 (469,480) 54,564
Computer software development - IRIS Less accumulated amortization Total computer software development - IRIS	1,077,517 (449,274) 628,243	1,077,517 (307,398) 770,119
Equipment - IRIS Less accumulated depreciation Total equipment	254,114 (159,175) 94,939	254,114 (108,354) 145,760
Computer software development-in progress - IRIS	9,720,758	7,345,733
Total assets used in plan operations	\$ 11,791,827	\$ 9,707,788

Depreciation expense is a component of administrative expense. For the year ended June 30, 2016, depreciation expense on the buildings and improvements was \$160,695. The equipment had a total depreciation expense of \$71,545 for 2016. In January 2012 development began on the Idaho Retirement Information System (IRIS) system. Costs of the IRIS system are being capitalized and are amortized as each phase is implemented. Beginning May 2013, the Employer Reporting component of IRIS began being amortized over 10 years. Amortization for 2016 was \$141,876. Equipment purchased for IRIS began being depreciated in May 2013 over 5 years. The balance on contracts pertaining to the completion of the IRIS project at June 30, 2016 was \$1.9 million..

#### NOTE 7. OTHER POST EMPLOYMENT BENEFITS

The State funds, or partially funds, postemployment benefits relating to health, disability, and life insurance. Employees of PERSI participate in the State of Idaho's postemployment benefit programs. The State administers the retiree healthcare plan which allows eligible retirees to purchase healthcare insurance coverage for themselves and eligible dependents. The State provides long-term disability income benefits for active employees who become disabled, generally up to a maximum age of 70. The State provides basic life and dependent life coverage for disabled employees, generally up to a maximum age of 70. For up to 30 months following the date of disability, an employee is entitled to continue healthcare coverage. Benefits costs are paid by PERSI through a rate charged by the State. The primary government (State of Idaho) is reporting the liability for the retiree healthcare and long term disability benefits. Specific details of these other postemployment benefits are available in the Comprehensive Annual Financial Report of the State of Idaho which may be accessed at <a href="https://www.sco.idaho.gov">www.sco.idaho.gov</a>.



#### **NOTE 8. COMMITMENTS**

\* \* \* \* \* \*



REQUIRED SUPPLEMENTARY INFORMATION June 30, 2016

# SCHEDULE OF CHANGES IN NET PENSION LIABILITY FISCAL YEAR ENDING JUNE 30

2016	2015	2014
\$ 397,283,921	\$ 384,419,252	\$ 376,800,000
1,088,670,726	1,045,505,462	992,942,358
67,800,000	150,400,000	(1,300,000)
(104,512,779)	(105,531,304)	(111,248,209)
13,100,000	-	74,600,000
(824,524,533)	(770,593,410)	(729,094,149)
637,817,335	704,200,000	602,700,000
15,273,500,000	14,569,300,000	13,966,600,000
15,911,317,335	15,273,500,000	14,569,300,000
, ,	, ,	310,986,283
, ,	, ,	203,890,954
		2,000,619,926
25,283	16,767	-
, ,	, , ,	(729,094,149)
		(6,787,811)
(72,498,927)	123,519,180	1,779,615,203
		12,053,528,293
13,884,163,748	13,956,662,675	13,833,143,496
\$ 2,027,153,587	\$ 1,316,837,325	\$ 736,156,504
	\$ 397,283,921 1,088,670,726 67,800,000 (104,512,779) 13,100,000 (824,524,533) 637,817,335 15,273,500,000 15,911,317,335 335,610,100 220,866,936 202,329,942 25,283 (824,524,533) (6,806,655) (72,498,927) 13,956,662,675 13,884,163,748	\$ 397,283,921 \$ 384,419,252 1,088,670,726

Schedule is intended to show information for 10 years. Additional years will be displayed as they become available.

### SCHEDULES OF CHANGES IN NET PENSION LIABILITY FISCAL YEAR ENDING JUNE 30

Firefighers' Retirement Fund			
-	2016	2015	2014
Total pension liability changes for the year			
Service cost	\$ -	\$ -	\$ -
Interest	20,496,009	21,479,861	21,888,712
Effect of plan changes	(557,863)	(2,100,000)	-
Effect of ecomonic/demographic gains or losses	(7,446,350)	(15,100,408)	(5,629,912)
Effect of assumptions changes or inputs	-	-	-
Benefit payments, including refunds of			
member contributions	(19,476,228)	(19,874,275)	(19,958,800)
Net change in total pension liabilities	(6,984,432)	(15,594,822)	(3,700,000)
Total pension liability - beginning	298,805,178	314,400,000	318,100,000
Total pension liability - ending	291,820,746	298,805,178	314,400,000
Plan net position	- 400 -0-	44.005.450	
Contributions - employer	7,198,597	11,305,473	14,200,323
Contributions - employee	6,329	6,168	9,095
Net investment income	5,083,454	9,357,909	50,966,862
Benefit payments, including refunds of			
member contributions	(19,476,228)	(19,874,275)	(19,958,800)
Administrative expense	(58,873)	(153,719)	
Net change in plan net position	(7,246,721)	641,556	45,217,480
Plan net position - beginning	352,815,870	352,174,314	306,956,834
Plan net position - beginning Plan net position - ending	345,569,149	352,815,870	352,174,314
,			
Plan net pension liability (asset) - ending	\$ (53,748,403)	\$ (54,010,692)	\$ (37,774,314)

Schedule is intended to show information for 10 years. Additional years will be displayed as they become available.

### SCHEDULES OF CHANGES IN NET PENSION LIABILITY FISCAL YEAR ENDING JUNE 30

Judges' Retirement Fund		
<b>-</b>	2016	2015
Total pension liability changes for the year		
Transfer in from JRF	\$ -	\$ 92,302,982
Service cost	3,110,818	3,251,679
Interest	6,888,876	6,589,779
Effect of ecomonic/demographic gains or losses	(1,647,589)	284,788
Benefit payments, including refunds of		
member contributions	(5,974,937)	(5,577,389)
Net change in total pension liabilities	2,377,168	96,851,839
Total pension liability - beginning	96,851,839	-
Total pension liability - ending	99,229,007	96,851,839
Plan net position		
Contributions - employer	3,370,587	3,595,417
Contributions - employee	623,754	629,077
Net investment income	1,092,130	2,049,895
Transfer in	-	75,864,300
Other	2,571	2,063
Benefit payments, including refunds of		
member contributions	(5,974,937)	(5,577,389)
Administrative expense	(133,096)	(95,733)
Net change in plan net position	(1,018,991)	76,467,630
Plan net position - beginning	76,467,630	-
Plan net position - ending	75,448,639	76,467,630
Plan net pension liability - ending	\$ 23,780,368	\$ 20,384,209

Schedule is intended to show information for 10 years. Additional years will be displayed as they become available.

### SCHEDULE OF NET PENSION LIABILITY FISCAL YEAR ENDING JUNE 30

PERSI Base Plan		2016		2015		2014	
Total Pension Liability Plan net position	\$ 15,911,317,335 13,884,163,748		\$ 15,273,500,000 13,956,662,675			14,569,300,000 13,813,143,496	
Net pension liability (asset)	<u> </u>	2,027,153,587		1,316,837,325		756,156,504	
Plan net position as a percentage of total pension liability Covered employee payroll Net pension liability as a percentage	\$	87.26% 2,895,430,105	\$	91.38% 2,791,109,393	\$	94.95% 2,702,945,352	
of covered employee payroll		70.01%		47.18%		27.24%	
Firefighters' Retirement Fund		2016	_	2015		2014	
Total Pension Liability	\$	291,820,746	\$	298,805,178	\$	314,400,000	
Plan net position Net pension liability (asset)	\$	345,569,149 (53,748,403)	\$	352,815,870 (54,010,692)	\$	352,174,314 (37,774,314)	
Net pension hability (asset)	<u> </u>	(33,740,403)	<u>Ψ</u>	(34,010,032)	Ψ	(37,774,314)	
Plan net position as a percentage of total pension liability Covered employee payroll Net pension liability (asset) as a percentage of covered employee payroll	\$	118.42% 68,017,833 -79.02%	\$	118.08% 63,780,545 -84.68%	\$	112.01% 63,017,405 -59.94%	
or covered employee payron		-19.0270		-04.0070		-39.94 70	
Judges' Retirement Fund		2016		2015		2014	
Total Pension Liability Plan net position	\$	99,229,007 75,448,639	\$	96,851,839 76,467,630	\$	- -	
Net pension liability (asset)	\$	23,780,368	\$	20,384,209	\$	-	
Plan net position as a percentage of total pension liability Covered employee payroll	\$	76.03% 6,097,302	\$	78.95% 6,149,339	\$	0.00%	
Net pension liability as a percentage of covered employee payroll		390.01%		331.49%		0.00%	

Schedule is intended to show information for 10 years. Additional years will be displayed as they become available.

See Notes to Required Supplementary Information

### SCHEDULE OF CONTRIBUTIONS FISCAL YEARS 2007-2016

P	FR	SI.	RΔ	SE	PΙ	ΔΝ
_	ER.		$\mathbf{D}$	.JE	-	$\sim$ 1 $^{\circ}$

	Actuarially	Actual	Contribution		Contribution
	Determined	Employer	Deficiency	Covered	as a % of
Fiscal Year	Contribution	Contribution	(Excess)	Payroll	Covered Payroll
2007	\$ 235,473,617	\$ 259,489,787	\$ (24,016,170)	\$ 2,420,984,935	10.72%
2008	251,362,544	273,335,059	(21,972,515)	2,578,933,669	10.60%
2009	232,091,865	284,608,663	(52,516,798)	2,683,535,923	10.61%
2010	260,316,830	284,932,419	(24,615,589)	2,684,360,943	10.61%
2011	326,554,992	279,174,844	47,380,148	2,627,850,654	10.62%
2012	327,832,536	277,143,887	50,688,649	2,619,568,411	10.58%
2013	295,502,818	285,440,860	10,061,958	2,697,575,738	10.58%
2014	325,041,599	310,986,283	14,055,316	2,702,945,352	11.51%
2015	327,101,958	321,240,628	5,861,330	2,791,109,393	11.51%
2016	297,262,331	335,610,100	(38,347,769)	2,895,430,105	11.59%

Firefighters' Retirement Fund

	Actuarially	Actual	Contribution		Contribution
	Determined	Employer	Deficiency	Covered	as a % of
Fiscal Year	Contribution	Contribution	(Excess)	Payroll	Covered Payroll
2007	\$ 5,033,291	\$ 12,119,173	\$ (7,085,882)	\$ 47,638,976	25.44%
2008	1,826,307	12,870,406	(11,044,099)	52,097,173	24.70%
2009	1,826,307	13,215,989	(11,389,682)	55,747,655	23.71%
2010	7,959,283	13,542,331	(5,583,048)	58,360,452	23.20%
2011	7,959,238	13,313,715	(5,354,477)	59,337,447	22.44%
2012	1,666,127	13,486,309	(11,820,182)	59,883,692	22.52%
2013	1,666,127	14,227,314	(12,561,187)	62,969,139	22.59%
2014	1,119,619	14,200,323	(13,080,704)	63,017,405	22.53%
2015	-	11,305,473	(11,305,473)	63,780,545	17.73%
2016	-	7,198,597	(7,198,597)	68,017,833	10.58%

Judges' Retirement Fund

	Vaageo Rearement ana					
	Actuarially	Actual	Contribution		Contribution	
	Determined	Employer	Deficiency	Covered	as a % of	
Fiscal Year	Contribution	Contribution	(Excess)	Payroll	Covered Payroll	
2015	\$ 3,492,825	\$ 3,595,417	\$ (102,592)	\$ 6,149,339	58.47%	
2016	3,463,268	3,370,587	92,681	6,097,302	55.28%	



# PUBLIC EMPLOYEE RETIREMENT FUND, FIREFIGHTERS' RETIREMENT FUND AND JUDGES' RETIREMENT FUND

### SCHEDULE OF INVESTMENT RETURNS YEAR ENDED JUNE 30, 2016

Annual money weighted rate of return, net of investment expenses  $\frac{2016}{1.51\%}$   $\frac{2015}{2.75\%}$   $\frac{2014}{16.89\%}$   $\frac{2013}{8.76\%}$ 

Schedule is intended to show information for 10 years. Additional years will be displayed as they become available.

# PUBLIC EMPLOYEE RETIREMENT FUND, FIREFIGHTERS' RETIREMENT FUND AND JUDGES' RETIREMENT FUND

# NOTES TO REQUIRED SUPPLEMENTARY INFORMATION YEAR ENDED JUNE 30, 2016

*Methods and assumptions used in calculations of actuarially determined contributions.* The actuarially determined contribution rates in the employers' contributions are calculated as of June 30, 2016 for PERSI, as of June 30, 2016 for FRF and as of June 30, 2016 for JRF. The following actuarial methods and assumptions were used to determine contribution rates reported in that schedule.

	PERSI Base Plan	FRF	JRF
Valuation date	July 1, 2014	July 1, 2015	July 1, 2016
Actuarial cost method	Entry age normal	Entry age normal	Entry age normal
Amortization method	Level percentage of projected payroll open	Level dollar amount - open	Level percentage of projected payroll open
Remaining amoritzation period	25 years	N/A	25 years
Asset valuation method	Market Value	Market Value	Market Value
Actuarial assumptions:			
Investment Rate of Return - Gross	7.50%	7.50%	7.50%
Projected salary increases	4.25%-10.00%	3.75%	3.75%
Includes salary inflation	3.75%	3.75%	3.75%
Postretirement benefit increase	1.00%	3.75%	1.00% or 3.75%
Implied price inflation rate	3.25%	3.25%	3.25%
Discount Rate - Actuarial Accrued Liability	7.00%	7.00%	7.00%



## PUBLIC EMPLOYEE RETIREMENT SYSTEM OF IDAHO

ADDITIONAL SUPPLEMENTARY SCHEDULES
June 30, 2016

## PUBLIC EMPLOYEE RETIREMENT SYSTEM OF IDAHO

# SCHEDULE OF INVESTMENT EXPENSES YEAR ENDED JUNE 30, 2016

INVESTMENT AND RELATED SERVICES:	<del>-</del>
Adelante Capital	\$ 4,133,412
AEW Capital Management	3,943,399
Baring Asset Management, Inc.	1,795,979
BCA Publication, Inc.	7,875
Bernstein, Sanford C.	4,398,728
Bloomberg, LP	64,451
Brandes Investment Partners, LP	1,796,308
Capital Guardian Trust Company	1,719,047
Capital Economics (N.A.) Ltd	10,000
Clearwater Advisors, LLC	667,208
D.B. Fitzpatrick & Co., Inc.	2,533,843
Donald Smith & Company	3,353,633
Genesis Asset Managers, Ltd.	2,027,842
Hamilton Lane Advisors, Inc.	121,272
Longview Partners	2,935,281
Mellon Capital Management	1,653,469
Mellon Trust	2,969,366
Mondrian Investment Partners	1,293,422
Mountain Pacific Investment Advisors, Inc.	1,612,328
Peregrine Capital Management	2,089,269
Prudential Investments	411,373
State Street Global Advisors	639,266
Tukman Grossman Capital Management, Inc.	2,412,987
Wells Fargo Bank	78,245
Western Asset	1,045,806
Yardarni Research	7,500
	43,721,309
CONSULTING AND OTHER SERVICES:	
Alban Row	83,808
Berkadia Commercial Mortgage	35,000
Callan Associates	401,020
Chartwell Consulting	80,310
Eide Bailly, LLP	83,760
Foster, Pepper, PLLC	237,050
Hamilton Lane Advisors, Inc.	185,000
Ice Miller LLP	814
Milliman, Inc.	360,250
Robert Storer	86,348
Whiteford, Taylor & Preston	4,841_
	1,558,201
TOTAL	\$ 45,279,510



## PUBLIC EMPLOYEE RETIREMENT SYSTEM OF IDAHO

# SCHEDULE OF ADMINISTRATIVE EXPENSES YEAR ENDED JUNE 30, 2016

PORTFOLIO-RELATED EXPENSES:	
Personnel expenses	\$ 710,324
Operating expenses	95,305
	805,629
OTHER ADMINISTRATIVE EXPENSES:	
Personnel expenses	3,248,018
Operating expenses	2,437,764
Building depreciation expense	160,696
Equipment depreciation expense	71,545
Software amortization expense	141,876
	 6,059,899
SICK LEAVE FUND EXPENSES — Administrative expenses	 104,340
JUDGES' FUND EXPENSES — Administrative expenses	 133,096
DEFINED CONTRIBUTION FUND — Administrative expenses	1,592,713
Total	\$ 8,695,677



# INDEPENDENT AUDITOR'S REPORT ON INTERNAL CONTROL OVER FINANCIAL REPORTING AND ON COMPLIANCE AND OTHER MATTERS BASED ON AN AUDIT OF FINANCIAL STATEMENTS PERFORMED IN ACCORDANCE WITH GOVERNMENT AUDITING STANDARDS

To the Retirement Board **Public Employee Retirement System of Idaho**Boise, Idaho

We have audited, in accordance with auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in *Government Auditing Standards*, issued by the Comptroller General of the United States, the financial statements of the pension and other trust funds of the Public Employee Retirement System of Idaho (the System), as of and for the year ended June 30, 2016, and the related notes to the financial statements, which collectively comprise the Public Employee Retirement System of Idaho's basic financial statements, and have issued our report thereon dated October 11, 2016

#### **Internal Control over Financial Reporting**

In planning and performing our audit of the financial statements, we considered the System's internal control over financial reporting (internal control) to determine the audit procedures that are appropriate in the circumstances for the purpose of expressing our opinions on the financial statements, but not for the purpose of expressing an opinion on the effectiveness of the PERSI's internal control. Accordingly, we do not express an opinion on the effectiveness of the System's internal control.

A deficiency in internal control exists when the design or operation of a control does not allow management or employees, in the normal course of performing their assigned functions, to prevent, or detect and correct, misstatements on a timely basis. A material weakness is a deficiency, or a combination of deficiencies, in internal control, such that there is a reasonable possibility that a material misstatement of the entity's financial statements will not be prevented, or detected and corrected on a timely basis. A significant deficiency is a deficiency, or a combination of deficiencies, in internal control that is less severe than a material weakness, yet important enough to merit attention by those charged with governance.

Our consideration of internal control was for the limited purpose described in the first paragraph of this section and was not designed to identify all deficiencies in internal control that might be material weaknesses or, significant deficiencies. Given these limitations, during our audit we did not identify any deficiencies in internal control that we consider to be material weaknesses. However, material weaknesses may exist that have not been identified.

#### **Compliance and Other Matters**

As part of obtaining reasonable assurance about whether the System's financial statements are free from material misstatement, we performed tests of its compliance with certain provisions of laws, regulations, contracts, and grant agreements, noncompliance with which could have a direct and

material effect on the determination of financial statement amounts. However, providing an opinion on compliance with those provisions was not an objective of our audit, and accordingly, we do not express such an opinion. The results of our tests disclosed no instances of noncompliance or other matters that are required to be reported under *Government Auditing Standards*.

#### **Purpose of this Report**

The purpose of this report is solely to describe the scope of our testing of internal control and compliance and the results of that testing, and not to provide an opinion on the effectiveness of the entity's internal control or on compliance. This report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering the entity's internal control and compliance. Accordingly, this communication is not suitable for any other purpose.

Sally LLP
Boise, Idaho

October 11, 2016



Helping Idaho public employees build a secure retirement.

# REPORT ON INVESTMENT ACTIVITY OVERVIEW OF FISCAL YEAR 2016

Note: The investment section of the CAFR was compiled using information from the System's custodial bank, Bank of New York Mellon, our consultant, Callan Associates, and internally generated data. Unless otherwise noted, investment returns are based on investment fair market values and made on a time weighted return methodology, gross of investment fees and consistent with Global Investment Performance Standards.

It was a "Groundhog Year": another tepid and below average year for the second year in a row. It also behaved and felt like the previous fiscal year (2015): a hole dug through a tough Fall and Winter, almost saved by a robust Spring rally that hinted at better times, only to be disappointed at the end by yet another European crisis.

With returns to the main Defined Benefit/Total Return fund of +1.8% gross, (+1.5% net) and assets of \$14.846 billion, the double digit market advances of the post 2008-2009 crash are becoming a distant memory. The Sick Leave Fund, which is purely passively indexed to 55% R3000, 15% EAFE, and 30% Barclays Aggregate (PERSI's basic reference benchmark), ended the year with a gross return of +1.8% and assets of \$410 million.

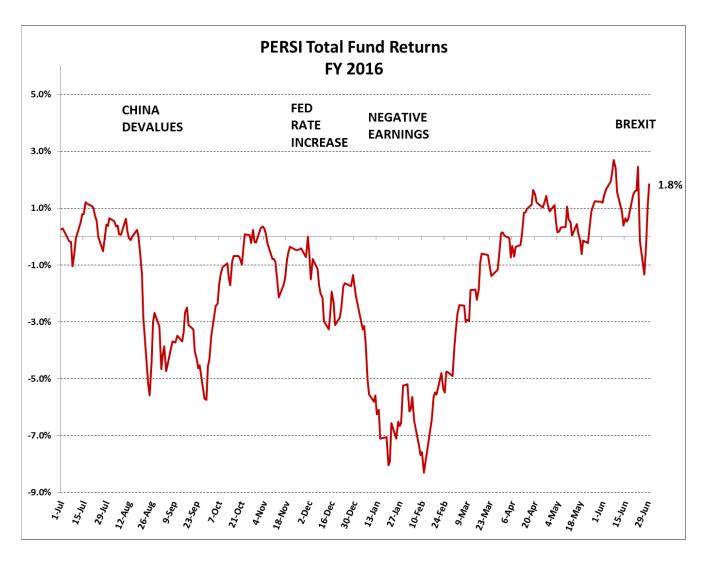
World capital markets have essentially moved sideways since the end of quantitative easing in the Fall of 2014, and no clear direction yet appears in sight. This past fiscal year saw the first (and still tentative) US interest rate increase, a continued oil market crash and partial recovery, overseas economic woes lead by a marked slowdown in the Chinese economy and attended by yet another European crisis [this time the vote in the UK to separate from the European Union ("Brexit")], another cold winter (at least economically) and an advancing dollar. All of these events combined keep the capital markets stalled.

It was another year where diversification hurt rather than helped overall fund returns. U.S. equities, both public and private, gave up their leading position to both bonds and real estate, with the Russell 3000 ending up only +2.1%, and private equity flat at +0.2%. The stellar performing capital market was real estate, both public and private, with REITs returning +21.6% and private real estate close behind at +18.0%. The worst was again emerging market equities, with returns of -11.2%, only slightly worse than general developed markets (EAFE) at -9.7%. Against all expectations, interest rates dropped over the year, and investment grade bonds had a very good year with returns of +6.0%.

All in all, the markets mostly sputtered during the year, with steep drops and recoveries characterizing much of the year, with a final drop at the end as the UK voted to pull out of the European Union ("Brexit"). The major capital market events were the marked slowdown in the Chinese economy with an accompanying devaluation of the yuan in the Fall, the implementation of the Federal Reserve's first interest rate increase in a decade in December, the collapse of corporate earnings in the Winter, and the continuation of European quantitative easing throughout the year: As a result, the PERSI fund, with a couple of steep setbacks, crawled back to essentially even over the year – hitting bottom in early February and peaking in early June.

The fiscal year began with the US equity markets hitting a "correction" level (defined as a 10% drop), as China stumbled, devaluated its currency, and its stock market continued its collapse. Commodities also collapsed, and emerging markets fell in conjunction. The market rebounded in October as the expected Fed interest rate increase was delayed and a US debt default was avoided. Overseas the markets continued to be concerned with a decelerating China, a moribund Europe, and even weaker emerging markets.

Winter was characterized by the first Fed rate increase in a decade, disappointing corporate revenues, and weak commodity prices (oil dropping into the \$20s) – with the worst start in history to a new calendar year for the U.S. stock market. Fears of a looming worldwide recession began to make the economic rounds.

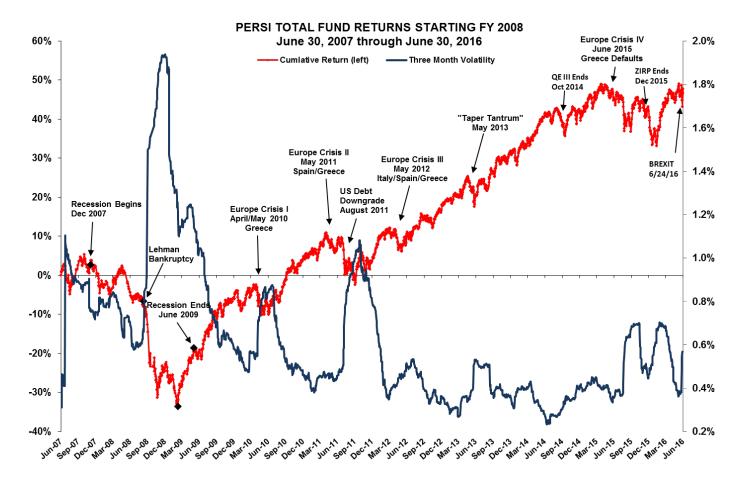


Spring, however, erased these concerns, as a strong labor market, continued US growth (although slow), recovering oil markets, and easing financial conditions triggered a strong "relief rally". The fund enjoyed one of the top ten months in its history with a March return of +5.3%. The advance generally continued until the fund hit an all-time return high on June 8<sup>th</sup>, before hitting the wall of "Brexit" and the accompanying collapse in mid to late June.

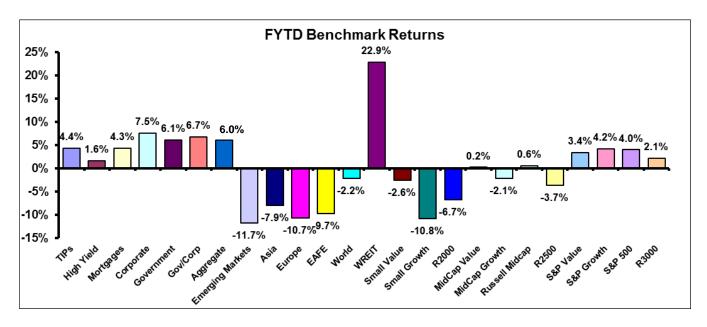
The surprise of the year, however, was the continued remarkable drop in worldwide interest rates, with shorter term and even 10 year yields turning negative for a large part of the developed world. US government yields once again dropped below 2% to end the year at 1.5%. Almost all of Europe, including Spain, and Japan spent the year with even lower interest rates than the U.S (with ten year yields in Switzerland, Germany, and Japan entering negative territory). These events resulted in a continued strong dollar.

This fiscal year saw the definite stalling of the remarkable capital market advancement since the fiscal crisis of 2008-2009. It also saw the reintroduction of capital market volatility after a period of relative calm following the U.S. debt downgrade of 2011.





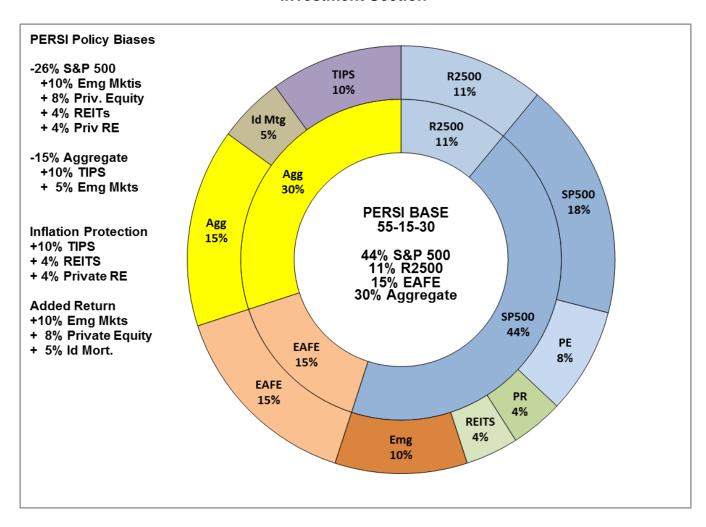
The equity markets had a mixed and mostly poor year. The S&P 500 returned +4.0% and the Russell 2500 mid/small cap lost -3.7%, resulting in an overall R3000 return of +2.1%. Large cap "growth" stocks outpaced large cap "value" stocks for the year, but the situation was reversed for mid and small cap U.S. stock, with small cap growth stocks losing -10.8%. MSCI EAFE (developed markets) had a very poor year with -9.7% returns, with Europe significantly underperforming Asia. Emerging markets, as has been the case for the past 5 years, noticeably underperformed the developed markets with losses of -11.7%. Private equity (+0.2%) also underperformed the public markets. The brightest spot was real estate, both public and private, which returned 21.6% in the public market and 18.0% privately. Investment grade bonds (6.0%) had a great year and TIPS [Treasury Inflation Protected Securities] fared only slightly worse with gains of +4.4%.



These markets, in fact, explain another feature of this fiscal year – that PERSI actual returns again trailed the reference 55% Russell 3000, 15% MSCI EAFE, 30% Barclay's Aggregate benchmark ["55-15-30"] by -0.13%.

As with fiscal year 2014 and 2015, this "underperformance" exactly reflects PERSI's intended structure – one that has been in place for the past two decades. PERSI's strategic biases have consistently reduced the 55-15-30 benchmark's bias to the S&P 500 by -26% (from a 44% weighting to an 18% weight). That money has been shifted to Emerging Markets (10% weight), Private Equity (8% weight), Private Real Estate (4% weight), and REITS (4% weight). The other major shift, with smaller return consequences, has been to take 15% of the monies from the Barclay's Aggregate 30% reference weight and shifted to a 10% general weighting of TIPS, and 5% weight in the Idaho Commercial Mortgage program. These biases account for all of the disparity between actual returns and the 55-15-30 return.

[PERSI's weighting to small cap equities and EAFE is the same as the 55-15-30 reference benchmark, with an 11% weighting to mid/small cap US stocks, and a 15% weighting to MSCI EAFE stocks. All of these weightings "look through" the activities of the active managers, and account for their biases (such as a tendency to overweight small cap stocks) in individual portfolio construction. Staff monitors active manager portfolios to assure that overall portfolio characteristics remain consistent with our long-term strategic biases].

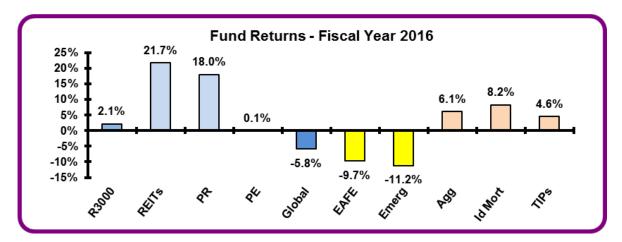


These shifts have been a basic feature of PERSI's strategic structure for at least the past two decades, and have been responsible for practically all of PERSI's relative performance both to peers and to the base reference 55-15-30 benchmark – both when PERSI is a top performing fund and also when it lags its peers.

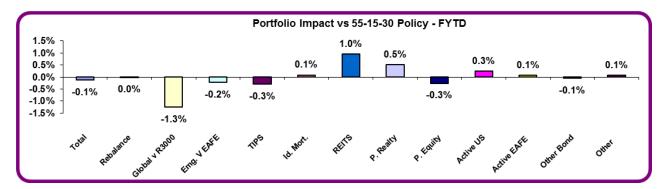
The central idea is that when the S&P 500 is one of the best performing capital markets in the world, PERSI will normally have no problem meeting its funding goals (as occurred in the mid-1990s and recently). The problem PERSI faces is when the S&P 500 is a mediocre or terrible market both absolutely and relatively that PERSI needs protection – as occurred in the first decade of the 2000s.

Besides additional diversification, PERSI has shifted money to other areas for purposes of increased inflation protection (S&P 500 to REITS and Private Real Estate, Barclay's Aggregate to TIPS) and long-term added return (S&P 500 to emerging markets and private equity, Barclay's Aggregate to private debt in the Idaho Commercial Mortgage Program). All of these strategic biases go back decades, (private real estate began in 1981, the small cap and emerging market bias has been in place since the late 1980s, the Idaho Commercial Mortgage program began in the late 1980s, and the REIT and TIPS biases were added in 1997-1998).

The overall impacts of each of the PERSI strategic biases were largely neutral, with global equities the major negative detractor and real estate the greatest positive influence:



Weighting these returns by the amount of money invested in those areas generates the relative contribution of each area (and active management) to portfolio returns relative to the 55-15-30 reference portfolio.



PERSI's institutional peer returns for the fiscal year have been good: handily above the median institutional and public fund. Long term returns (ten years plus) also continue to be significantly above average: Medium term returns (3-7 years), however, are more "in the pack" and reflect the significant underperformance of emerging markets, private real estate, REITs and TIPS over those medium term years.

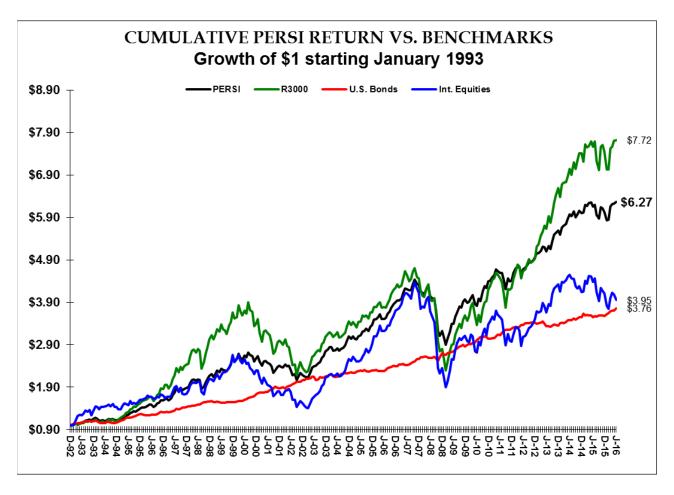
# RANKINGS IN MELLON MASTER TRUST MELLON PUBLIC FUNDS and CALLAN PUBLIC FUND UNIVERSES June 30, 2016 Percentile Rankings over Period (1 is highest, 100 is lowest)

	1Yr	2Yrs	3Yrs	5Yrs	10Yrs	20Yrs
Return (%)	1.8	2.4	7.2	6.4	6.0	7.5
Mellon Median Master	0.6	1.9	6.3	6.4	5.7	
Mellon Median Public	0.9	2.2	6.7	6.5	5.7	
Callan Median Public	0.5	N/A	6.4	6.4	5.7	7.1
PERSI Rank (Percentile)						
Mellon All Funds	33	38	34	52	39	
Mellon Public Funds	23	34	31	58	32	
Callan Public Funds	19	N/A	21	52	29	26

PERSI's annualized return over the last 20 years has been 7.5% while the 55-15-30 reference benchmark return has returned 7.1%.



Since 1993, each dollar then invested in PERSI has returned over six fold, to \$6.27:





PERSI's basic and relatively simple approach has served the fund well both over the past year and over the longer term. It encountered few issues in the turbulent period of the last seven years, and has survived relatively unscathed through all of the crises of the past 20 years.

The overall PERSI US equity component returned +5.5%, markedly outperforming the general US equity market (R3000) which returned +2.1%. Real estate was the outstanding performer after completing a multi-year restructuring, with 19.7% returns (18.0% from private real estate and 21.7% from public real estate). Adelante had returns of 21.1%, trailing the REIT index by -1.8%, while the REIT index fund slightly underperformed with returns of +21.9%.

Mountain Pacific was the star of the rest of the public equity markets, with the best total return of 8.0% as well as the best relative return – beating their midcap index by +11.4%. Peregrine, with a return of +6.6% was next, outperforming their index by +2.4%. Tukman underperformed their large cap mandate with returns of +0.6%, underperforming by -3.4%. Donald Smith returned to form with returns of +0.9%, outpacing their small cap index by +7.6%. Private equity had a mediocre year with a miniscule +0.2% gain.

Global equity had a poor year, collectively underperforming the MSCI World market index with a loss of -5.8% compared to the index loss of -2.2%. Longview with a loss of -1.0% was the only global manager to outpace the index. Barings (-4.8%), Brandes (-9.1%), Bernstein (-9.7%), and Capital Group (-4.7%) all substantially lagged.

Developed market international equity (MSCI EAFE) lost -9.7% for the year, although outperforming emerging market equity (MSCI Emerging Markets) at -11.7% for the fifth year in a row. Mondrian, our developed markets manager beat the EAFE index with a -6.9% return. Bernstein Emerging (-14.4%) underperformed their index, while Genesis (-6.3%) outperformed.

PERSI fixed income made an unexpectedly strong +6.1%, matching the Barclay's Aggregate index at 6.0%. This return included the SSGA TIPs return of +4.6% and the Western active TIPs account return of +2.5%. Western with its nominal bond portfolio had an index beating return of 8.0%, and Barings only slightly underperformed at 6.0%. Clearwater also slightly underperformed with returns of 5.9%. Idaho Mortgages, which are priced off of the Treasury yield curve, had a very good year and were up 9.4%, while the DBF mortgage backed securities portfolio tracked the general mortgage market with 3.9% returns.

In summary, a slightly positive and tepid overall year for PERSI.

ROBERT M. MAYNARD Chief Investment Officer



## INVESTMENT SUMMARY FOR THE YEAR ENDED JUNE 30, 2016

Types of Investment	Market Value		Percent of Total Market Value		
Short-term Investments Fixed Income		\$403,999,837	2.8%		
	<b>#2 204 024 467</b>		22.20/		
Domestic	\$3,201,024,467		22.3%		
International	26,474,473		0.2%		
Commercial Mortgages	675,293,078		4.7%		
Total Fixed Income		3,902,792,018	27.2%		
Equity					
Domestic Equity	6,087,997,957		42.4%		
International Equity	2,547,177,986		17.8%		
Total Equity		8,635,175,943	60.2%		
Private Equity		926,779,483	6.5%		
Real Estate		476,657,856	3.3%		
Total Base Plan Investments	:	\$14,345,405,137	100.0%		
Other Funds:					
Sick Leave Insurance Reserve Fund		410,625,545			
Choice Plan 414(k)		55,184,817			
Choice Plan 401(k)		661,810,290			
Total Investments in All Funds		\$15,473,025,789			



## Schedule of Investments by Account (including interest and dividends receivable) as of June 30, 2016

PERSI Base Plan, Firefighters' Retirement Fund, and Judges' Plan			
Adelante Capital Management	\$	513,794,187	
Advent International, LP	Ψ	49,857,106	
Apollo Management, LP		41,177,241	
Apollo Management, LF  American Securities Opportunities Associates II, LLC		28,810,250	
		390,339,871	
Baring Asset Management-Global Equity			
Baring Asset Management-Global Fixed Income		193,504,982	
Bernstein-Emerging Markets Bernstein-Global Equity		268,327,401 444,836,792	
Blackstone Capital Partners, LP		81,809,550	
•			
BNY Mellon Capital Management-International Stock Index		418,536,908	
BNY Mellon Capital Management P2000 Small Con		208,520,183	
BNY Mellon Capital Management-R2000 Small Cap		148,416,465	
BNY Mellon Capital Management-S&P 500 Large Cap		1,677,762,762	
BNY Mellon Capital Management-REIT Index		342,767,538	
BNY Mellon Capital Management-Emerging Market Index		509,898,179	
Brandes Investment Partners		412,566,998	
Bridgepoint Cap LTD		21,959,655	
Capital Guardian		410,337,863	
Cascade		98,439,109	
Cerberus Investment Partners		13,984,087	
Chisholm Management, LP		1,188,383	
Clearwater Advisors, LLC-TBAs		145,710,103	
CVC European Equity		24,543,943	
D.B. Fitzpatrick & CoFixed Income		70,813,440	
D.B. Fitzpatrick & CoIdaho Mortgages		677,399,623	
Donald Smith & Co.		441,562,062	
Endeavour Capital		31,538,650	
Enhanced Equity, LP		36,053,305	
Epic Venture Fund		13,995,333	
First Reserve Fund XI		16,037,310	
Frazier Technology Ventures II, LP		25,313,432	
Galen Associates, LP		28,591,725	
Genesis Asset Managers		276,761,713	
Goense Bounds & Partners, LP		1,493,815	
Gores Capital Partners, LLP		17,050,587	
Green Equity Investors IV, LP		26,699,429	
Hamilton Lane Co - Investment Fund, LP		53,251,566	
Hamilton Lane Secondary Fund, LP		17,488,320	
Highway 12 Ventures, LP		54,415,444	
Ida-West		3,147,493	
JH Whitney & Co, LLC		24,321,407	
KKR 2006 Fund, LP		43,933,978	
Kohlberg & Co.		34,483,061	
Koll Partners, LLP		256,444,606	
Lindsay Goldberg & Bessemer		27,753,794	
Littlejohn, LP		74,408	
Longview Partners		509,994,103	
Mellon Transition Management Services		2,060,266	
Mondrian Investment Partners		372,523,008	
Mountain Pacific Investment Advisors		531,021,350	(Continued)



Newbridge Asia, LP	2,745,050	
Olympic IDA Fund, LLC	166,153,840	
Peregrine Capital Management	507,594,642	
PERSI Cash in Short-Term Investment Pool	61,800,349	
Providence Equity Partners, LLP	57,224,905	
Prudential Investments	54,007,626	
State Street Global Advisors-Fixed Income	1,077,665,362	
State Street Global Advisors-TIPS	1,079,988,109	
T3 Partners, LP	110,452,015	
Tukman Grossman Capital Management	459,044,996	
Veritas Capital Partners, LP	36,113,187	
W. Capital Partners, LP	1,271,054	
Western Asset Management	200,369,022	
Western Asset-TIPS	393,451,830	
Zesiger Capital Group	339	
Zesiger Capital Group-Private Equity	19,619,899	
Total Base Plan, Firefighters' Retirement Fund, and Judges' Retirement Fund		\$ 14,268,815,009
Choice Plan		
Mellon Capital Management U.S. Bond Market Index Fund - Choice Plan	11,356,667	
Mellon Capital Management U.S. Small/Mid Cap Equity Index Fund - Choice Plan	10,930,622	
Mellon Capital Management U.S. Broad Market Equity Equity Index Fund - Choice Pl	7,104,845	
Mellon Capital Management International Equity Index Fund - Choice Plan	5,195,762	
Mellon Capital Management U.S. Large Cap Equity Index Fund - Choice Plan	18,681,693	
Mellon Capital Management Emerging Market Equity Index Fund - Choice Plan	400,527	
Mellon Capital Management U.S. Treasury Inflation-Protected Securities (TIPS) Index	468,076	
Mellon Capital Management U.S. REIT Index Fund - Choice Plan	2,291,869	
Brandes International Equity Fund - Choice Plan	6,339,460	
Calvert SI Balance Fund - Choice Plan	2,127,477	
Dodge and Cox Income Fund - Choice Plan	11,935,119	
PERSI Choice Plan Contribution Holding Account		
•	811,546	
PERSI Choice Plan Loan Fund	8,786,761	
T. Rowe Price Small Cap Fund - Choice Plan	19,068,645	
Total Return Fund	578,038,714	
Vanguard Growth & Income Fund - Choice Plan	21,098,302	
PERSI Short Term Investment Portfolio	14,931,091	. 740 507 470
Total Choice Plan		719,567,176
0:11		
Sick Leave Insurance Reserve Fund	044.050.000	
State Street Global Advisors-Domestic Equity	241,352,689	
State Street Global Advisors-International Equity	49,957,268	
State Street Global Advisors-Fixed Income	119,315,588	
Total Sick Leave Insurance Reserve Fund		410,625,545
Total Market Value Including Investment Descripping and Devahles		15 200 007 720
Total Market Value, Including Investment Receivables and Payables		15,399,007,730
Add: Investments Purchased Payable		286,890,388
Less: Investments Sold Receivable		(167,859,370)
Less: Interest and Dividends Receivable		(45,012,959)
Less. IIIICICSI AIIU DIVIUCIIUS NECEIVADIC		(40,012,303)
Total Market Value, Net of Investment Receivables and Payables		\$ 15,473,025,789
Total market value, not of invocation recognized and rayables		Ţ 10,110,020,100

#### Investment Results for the Year Ended June 30, 2016

<u>MANAGERS</u>	TOTAL MKT VAL (MILLIONS)	TOTAL	Investr FISCAL		formance formance for 3 YRS. *		
ILS FOURTY	(MILLIONS)	FUND					
U.S. EQUITY	<b>0.47.0</b>	4 40/	(4.0)	(4.0)	0.0	0.0	0.4
MELLON CAPITAL MANAGEMENT MID CAP	\$ 217.0	1.4%	,	(4.3)	9.6	9.9	8.1
MELLON CAPITAL MANAGEMENT R2000 SMALL CAP	154.4	1.0%	,	(6.5)	7.2	8.5	6.2
MELLON CAPITAL MANAGEMENT S&P 500 LC	1,745.7	11.9%		4.0	11.6	12.1	7.5
MOUNTAIN PACIFIC	552.5	3.7%		8.0	14.5	13.5	10.2
TUKMAN GROSSMAN CAPITAL MGMT	477.6	3.2%		0.6	8.9	11.4	7.8
DONALD SMITH & CO.	459.5	3.1%		0.9	6.6	8.9	7.1
PEREGRINE	528.2	3.6%		6.6	15.3	13.4	8.5
TOTAL U.S. PUBLICLY TRADED EQUITY	4,134.9	27.9%	3.1	3.1	11.2	11.6	8.0
BENCHMARK - Russell 3000			2.1	2.1	11.1	11.6	7.4
PRIVATE EQUITY							
IDA-WEST	3.3	0.0%	0.0	0.0	2.6	11.6	15.4
GALEN III	29.7	0.2%	(8.5)	(8.5)	(1.3)	1.5	4.2
PROVIDENCE EQ PARTNERS	59.5	0.4%	14.7	14.7	11.0	8.3	9.5
CHISOLM PARTNERS	1.2	0.0%	1.6	1.6	12.8	23.7	22.3
LITTLEJOHN II L.P.	0.1	0.0%		(2.5)	12.6	20.1	24.5
GOENSE BOUNDS	1.6	0.0%	,	42.2	(7.3)		
HWY 12 FD VENTURE LP	56.6	0.4%		3.7	5.4	7.1	0.7
T3 PARTNERS II L.P.	114.9	0.8%		10.3	19.5	16.4	11.2
APOLLO MGMT LP	42.8	0.3%		(4.4)	9.9	12.1	17.5
GREEN EQUITY IV L.P.	27.8	0.2%	, ,	5.9	14.1	14.9	13.3
GORES CAPITAL AD LLC	17.7	0.1%		4.1	(1.9)		
W CAPITAL PARTNERS	1.3	0.0%		(28.6)	(21.7)	, ,	
FRAZIER TECH VENTURES II	26.4	0.2%	,	13.5	29.2	20.6	10.0
KOHLBERG & CO.	35.9	0.2%		16.6	13.5	14.2	11.7
HAMILTON SECONDARY	18.2	0.2%		1.2	9.2	10.4	9.4
CVC EUROPEAN EQUITY	25.5	0.1%		5.4	9.0	14.3	3.4
HAMILTON LANE CO-INVESTMENT FUND	55.4	0.2%		(7.0)	10.2	11.0	
BRIDGEPOINT EUROPE III	22.8	0.3%	, ,	3.9	3.1	2.1	
NEWBRIDGE ASIA LP	2.9	0.0%	, ,	(30.0)	(11.4)	,	
JH WHITNEY EQUITY PARTNERS IV	25.3	0.2%	,	(2.8)	(2.2)		
BLACKSTONE CAPITAL PARTNERS	85.1	0.6%		1.7	13.8	14.0	
ENHANCED EQUITY FUND LP	37.5	0.3%	,	(28.9)	(3.3)		
LINDSEY, GOLDBERG, BESSEMER	28.9	0.2%		2.2	5.8	13.1	
KKR 2006 FUND	45.7	0.3%		6.9	12.3	13.0	
FIRST RESERVE FUND XI	16.7	0.1%	, ,	(50.4)	(31.6)	, ,	
CERBERUS INST PARTNERS	14.6	0.1%		8.5	9.0	9.3	
EPIC VENTURE FUND	14.6	0.1%		(13.4)	6.6	18.8	
ADVENT INTERNATIONAL	51.9	0.3%		16.8	19.6	19.5	
AMERICAN SECURITIES OPPORTUNITIES FUND II	30.0	0.2%	, ,	(9.1)	3.0	5.6	
VERITAS CAPITAL PARTNERS	37.6	0.3%		7.8	15.2		
ENDEAVOUR CAPITAL PARTNERS	32.8	0.2%		7.8	11.7		
ZESIGER CAPITAL GROUP	20.4	0.1%		(15.8)	(3.1)		(2.1)
TOTAL PRIVATE EQUITY	984.7	6.6%	0.2	0.2	7.5	8.9	8.6
REAL ESTATE							
KOLL PARTNERS	266.8	1.7%	20.3	20.3	10.5	(0.7)	(3.1)
OLYMPIC IDA FUND II	172.9	1.2%	13.4	13.4	15.9	20.3	
CASCADE	102.4	0.7%		18.1	20.6	5.5	
ADELANTE - PUBLIC R/E	534.6	3.6%	21.1	21.1	15.9	14.0	6.7
MELLON CAPITAL MANAGEMENT REIT INDEX	356.7	2.4%		21.9			
PRUDENTIAL	56.2	0.4%		14.2	14.1	13.7	6.0
TOTAL R/E MANAGERS	1,489.6	10.0%		20.3	14.8	9.4	4.3
BENCHMARK - NCREIF	,		11.8	11.8	11.9	11.9	7.6
TOTAL U.S. EQUITY	\$ 6,609.2	44.5%	6.0	6.0	11.3	10.6	7.3
	Ψ 0,003.2	74.570					7.4
BENCHMARK - Russell 3000			2.1	2.1	11.1	11.6	7.4

#### Investment Results for the Year Ended June 30, 2016

MANAGERS		ΓAL Γ VAL LLIONS)	% OF TOTAL FUND	Investment FISCAL			ods Ending YRS. * 10	YRS. *
GLOBAL EQUITY								
BARING ASSET MANAGEMENT	\$	406.1	2.7%	,	(4.8)	6.8	5.5	6.2
BRANDES INVST PARTNERS		429.3	2.9%	(9.1)	(9.1)	4.4	5.3	2.4
CAPITAL GUARDIAN		427.0	2.9%	(4.7)	(4.7)	6.6	6.7	4.4
ZESIGER CAPITAL GROUP		-	0.0%	(0.7)	(0.7)	(8.4)	(7.1)	(0.7)
BERNSTEIN GLOBAL		462.9	3.1%	(9.7)	(9.7)	7.2	5.1	1.2
LONGVIEW PARTNERS		530.7	3.6%	(1.0)	(1.0)	12.5		
TOTAL GLOBAL EQUITY		2,256.0	15.2%	(5.8)	(5.8)	6.5	5.6	4.1
TOTAL U.S./GLOBAL EQUITY		8,865.2	59.7%	2.8	2.8	10.0	9.1	6.2
BENCHMARK - Russell 3000				2.1	2.1	11.1	11.6	7.4
INTERNATIONAL EQUITY								
GENESIS INVESTMENTS		288.0	1.9%	, ,	(6.3)	(1.2)	(1.9)	5.9
MELLON CAPITAL MANAGEMENT INTL STK INDX		435.5	2.9%	(9.8)	(9.8)	2.4	2.0	1.9
MONDRIAN		387.6	2.6%	(6.9)	(6.9)	4.2	3.3	3.1
BERNSTEIN EMERGING		279.2	1.9%	(14.4)	(14.4)	0.1	(4.9)	2.0
MELLON CAPITAL MANAGEMENT EMERGING STK INDX		530.5	3.6%	(12.0)	(12.0)			
TOTAL INTERNATIONAL EQUITY		1,920.8	12.9%	(10.0)	(10.0)	1.0	(0.7)	3.2
EAFE INDEX NET				(10.2)	(10.2)	2.1	1.7	1.6
TOTAL EQUITY		10.786.0	72.6%	0.3	0.3	8.2	7.1	5.7
BENCHMARK - Russell 3000		,		2.1	2.1	11.1	11.6	7.4
FIXED INCOME  DBF & CO FIXED  DBF & CO-IDAHO MTGS  STATE ST ADV-FX  SSGA-TIPS  CLEARWATER-TBA  BARING ASSET MANAGEMENT  WESTERN ASSET  WESTERN TIPS  TOTAL FIXED INCOME  BENCHMARK - BC Aggregate Bonds	_	73.7 704.8 1,121.4 1,123.7 151.6 201.3 208.5 409.4 3,994.4	0.5% 4.7% 7.6% 7.6% 1.0% 1.4% 2.8% 27.0%	9.4 6.8 4.6 5.9 6.0 8.0 2.5	3.9 9.4 6.8 4.6 5.9 6.0 8.0 2.5 6.1	3.5 5.9 4.3 2.5 4.3 4.0 5.7 1.5 3.7	2.9 5.2 4.2 4.3 3.1 3.8 5.5 2.1 4.0	4.7 7.4 5.4 5.8 4.9 5.3 6.7 5.6
OTHER								
UNALLOCATED CASH		64.3	0.4%	9.0	9.0	4.4	3.5	5.6
MELLON TRANSITION MANAGEMENT SERVICE: 1		2.1	0.0%		21.0			
TOTAL OTHER		66.4	0.4%					
COMBINED TOTAL <sup>2</sup>		14,846.8	100.0%	1.8	1.8	7.2	6.4	6.0
BENCHMARK - 55% Russell 3000		,		1.6	1.6	7.8	7.9	6.2
30% BC Aggregate Bonds 15% MSCI EAFE Index				1.0	1.0	7.0	7.0	0.2
Add: Other PERSI DC Choice Plan Investments Sick Leave Fixed Income Investments Sick Leave Equity Securities Investments Purchased Less:Interest and Dividends Receivable Investments Sold		141.6 119.3 291.3 286.9 (45.0) (167.9)						
Total Pension Fund Investments Net of Receivables	\$	15,473.0						

<sup>\*</sup>Rates of Return are annualized

Performance is gross of fees

<sup>&</sup>lt;sup>1</sup>Large inflows/outflows in this account results in widely variable returns

<sup>&</sup>lt;sup>2</sup>Total Return Fund/Judges' Plan included in investment results

<sup>\*\*</sup>accounts opened less than one year

#### Schedule of Investment Income for the Last Six Years

Year	Interest	Dividends	Gains & Losses*	Total
2011	116,133,693	161,647,820	1,862,195,995	2,139,977,508
2012	117,140,608	165,467,250	(86,288,779)	196,319,079
2013	110,329,885	180,373,163	817,663,490	1,108,366,538
2014	105,237,909	220,530,606	1,907,625,265	2,233,393,780
2015	114,333,491	198,258,329	153,584,037	466,175,857
2016	106,500,811	224,510,654	(57,751,134)	273,260,331

<sup>\*</sup>Includes realized and unrealized gains and losses and other investment income.

## Largest Stock Holdings (by Market Value) June 30, 2016

	Shares	Stock	Market Value
1	493,293	SIMON PROPERTY GROUP INC	\$ 106,995,252
2	1,677,281	AMERICAN INTERNATIONAL GROUP INC	88,711,392
3	1,678,077	WELLS FARGO & CO	79,423,384
4	107,310	AMAZON.COM INC	76,793,182
5	698,253	APPLE INC	66,752,987
6	545,802	JOHNSON & JOHNSON	66,205,783
7	1,291,497	MICROSOFT CORP	66,085,901
8	51,011	SAMSUNG ELECTRONICS CO LTD	63,107,791
9	244,100	PUBLIC STORAGE	62,389,519
10	1,682,151	PFIZER INC	59,228,537

A complete list of portfolio holdings is available upon request.

#### Largest Bond Holdings (by Market Value) June 30, 2016

	Par	Bonds	Description	Market Value
1	92,817,543	US TREASURY INFLATION INDEX SECURITY	0.625% 01/15/2026 DD 01/15/16	\$ 95,349,855
2	70,625,754	US TREASURY INFLATION INDEX SECURITY	0.125% 04/15/2020 DD 04/15/15	72,124,624
3	70,616,989	US TREASURY INFLATION INDEX SECURITY	0.125% 04/15/2019 DD 04/15/14	71,547,099
4	71,567,602	US TREASURY INFLATION INDEX SECURITY	0.125% 04/15/2018 DD 04/15/13	71,111,829
5	64,925,390	US TREASURY INFLATION INDEX SECURITY	0.625% 01/15/2024 DD 01/15/14	67,127,841
6	66,475,105	US TREASURY INFLATION INDEX SECURITY	1.125% 01/15/2021 DD 01/15/11	64,723,506
7	58,545,584	US TREASURY INFLATION INDEX SECURITY	0.375% 07/15/2023 DD 07/15/13	60,907,289
8	60,652,159	US TREASURY INFLATION INDEX SECURITY	0.125% 01/15/2022 DD 01/15/12	59,754,312
9	50,971,719	US TREASURY INFLATION INDEX SECURITY	0.125% 07/15/2024 DD 07/15/14	52,620,959
10	52,843,257	US TREASURY INFLATION INDEX SECURITY	0.625% 07/15/2021 DD 07/15/11	51,862,575

A complete list of portfolio holdings is available upon request.



## Schedule of Fees and Commissions for the Year Ended June 30, 2016

			Commission
Broker Name	Base Commission	Total Shares	per Share
UBS SECURITIES LLC, STAMFORD	\$ 692,318	6,995,599	
MORGAN STANLEY & CO INC, NY	155,373	47,275,584	0.01070
STATE STREET GLOBAL MARKETS LLC, BOSTON	141,212	55,236,841	0.02255
MERRILL LYNCH INTL LONDON EQUITIES	116,017	10,569,547	0.00410
DEUTSCHE BK SECS INC, NY (NWSCUS33)	109,642	5,927,268	0.00369
MERRILL LYNCH PIERCE FENNER SMITH INC NY	99,378	5,840,031	0.02724
JEFFERIES & CO INC, NEW YORK	97,135	19,261,831	0.03842
GOLDMAN SACHS & CO, NY	94,435	3,582,076	0.00571
GOLDMAN SACHS INTL, LONDON (GSILGB2X)	87,591	4,710,601	0.00756
BERNSTEIN SANFORD C & CO, NEW YORK	87,319	2,763,649	0.02320
DEUTSCHE BK INTL EQ, LONDN (DEUTGB22EEQ)	80,418	7,578,453	0.00851
J P MORGAN SECURITIES INC, BROOKLYN	77,985	2,565,247	0.02711
CREDIT LYONNAIS SECS (ASIA), HONG KONG	76,484	10,735,458	0.00131
CITIGROUP GBL MKTS INC, NEW YORK	72,970	2,846,327	0.02856
INSTINET CORP, NY	72,282	9,496,542	0.01918
UBS WARBURG, LONDON	67,898	5,672,146	0.00382
J P MORGAN SECS, NEW YORK	60,073	7,889,399	0.01405
WEEDEN & CO, NEW YORK	56,042	1,688,485	0.02009
J P MORGAN SECS LTD, LONDON	55,219	13,262,860	0.01137
CITIGROUP GLOBAL MARKETS LTD, LONDON	55,152	28,903,322	0.00850
RBC DOMINION SECS INC, TORONTO	53,040	25,560,087	0.04410
CREDIT SUISSE, NEW YORK (CSUS)	49,183	1,556,740	0.00942
ISI GROUP INC, NY	46,967	849,933	0.04312
CJS SECURITIES INC, JERSEY CITY	45,760	24,628,611	0.03907
J.P. MORGAN CLEARING CORP, NEW YORK	45,077	21,062,936	0.01206
BNY CONVERGEX, NEW YORK	43,559	2,198,661	0.03975
CSI US INSTITUTIONAL DESK,NEW YORK	39,374	1,305,886	0.04386
MORGAN STANLEY & CO, LONDON (MSLNGB2X)	39,089	22,825,340	0.00761
DEUTSCHE SEC ASIA LTD, HONG KONG	37,629	1,549,519	0.00120
CREDIT SUISSE (EUROPE), LONDON	35,765	16,353,561	0.00340
Other Brokers under \$35,000	1,195,627	145,301,642	0.00823

## **TOTAL BROKER COMMISSIONS** \$ 3,986,013 515,994,182 \$ 0.00772

A complete list of broker commissions is available from PERSI upon request. PERSI does not require that investment managers use specific brokers.

# Schedule of Fees and Commissions for the Year Ended June 30, 2016

#### PRIVATE EQUITY COSTS BY ACCOUNT

Advent International GPE, L.P.	\$	396,832
*Ascribe Capital LLC		826,949
Apollo Investment Fund, L.P.		266,142
Blackstone Capital Partners, L.P.		652,180
Bridgepoint Capital LTD		524,462
CVC European Equity Partners, L.P.		369,902
Endeavour Capital Fund, L.P.		553,515
Enhanced Equity Funds, L.P.		642,144
First Reserve, L.P.		231,148
Gores Capital Partners, L.P.		(34,615)
Hamilton Lane Co-Investment Fund, L.P.		269,632
Hamilton Lane Secondary Funds, L.P.		161,155
Highway 12 Venture Funds, L.P.		122,500
J.H. Whitney, L.P.		277,456
KKR, L.P.		261,311
Kohlberg Investors, L.P.		337,727
Lindsay Goldberg, L.P.		260,161
Providence Equity Partners III, L.P.		546,932
TPG, L.P.		337,989
Veritas Capital Partners, LLC		160,602
TOTAL	\$ 7	7,164,126

<sup>\*</sup>formerly American Securities Opportunities

#### Schedule of Fees and Commissions for the Year Ended June 30, 2016

Investment Fees	Average Assets Under Management	Fees	Basis Points
Investment Manager Fees Equity Managers Fixed Income Managers Real Estate Managers	\$ 8,986,188,961 3,978,079,702 502,367,262	6,518,619	33 16 87
Total Average Assets Total Investment Manager Fees	\$ 13,466,635,924	40,420,389	30
Other Investment Service Fees Custodian/Record Keeping Fees Investment Consultant Fees Legal Fees Actuary/Audit Service Fees		3,047,611 961,312 242,705 444,010	
Total Investment Service Fees		4,695,638	3
Total Defined Benefit Plans/Defined Contribution Plans' Fees		\$45,116,027	34
Total Other Trust Funds' Fees		163,483	_
Total Fees		\$45,279,510	=

Note: Broker Fees are Included on a Separate Schedule

#### STATEMENT OF INVESTMENT POLICY AND GUIDELINES

#### I. Introduction

The Retirement Board ("Board") of the Public Employee Retirement System of Idaho ("PERSI", "System") hereby establishes its Statement of Investment Policy for the investment of the trust funds ("Trust") in accord with Idaho Code Chapter 13, Title 59.

#### **II. Statutory Requirements**

The investment of the Trust will be in accord with all applicable laws of the state of Idaho.

#### A. Sole Interest of Beneficiaries

Investments will be solely in the interest of the participants and beneficiaries and for the exclusive purpose of providing benefits to the participants and their beneficiaries and defraying reasonable expenses of administration.

#### **B. Prudent Investments**

Investments will be made with the judgment and care under the circumstances then prevailing, which people of prudence, discretion and intelligence exercise in the management of their own affairs, not in regard to speculation but in regard to the permanent disposition of their funds, considering the probable outcome as well as the probable safety of their capital. Investments will be diversified so as to minimize the risk of loss and to maximize the rate of return, unless under the circumstances it is clearly prudent not to do so.

#### C. Fiduciary Duties

The Board and its agents, including staff, consultants, and investment managers, will discharge their duties with respect to the Trust assets solely in the interest of the members and retired employees, and with the care, skill, prudence and diligence under the circumstances then prevailing that a prudent person acting in a like capacity and familiar with such matters would use in the conduct of an enterprise of a like character and with like aims.

#### **III. Investment Goals**

#### A. General Objective

#### 1. Purpose

The purpose of the investment of Trust assets is to provide funds to meet the obligations of the Public Employee Retirement System of Idaho (PERSI) while incurring the appropriate amount of risk consistent with attaining that goal. The Board will invest the assets of the Trust and will reduce risk through diversification of the assets of the Trust.

#### 2. Considerations

In determining the returns needed by the System, the acceptable risk levels, and the allowable investments, the Board will consider:

- the purpose of the plan,
- the projected return of the portfolio as it relates to the funding objectives of the plan,
- the effect of particular investments on the total portfolio,
- the diversification of the portfolio, and
- the liquidity needs and the current return relative to the anticipated cash flow requirements.

#### B. Specific PERSI return and risk objectives

#### 1. Investment Returns

#### (a) Actuarial Assumptions

In projecting obligations and the returns needed to meet those obligations, the Board will consider studies performed by actuaries hired by the Board. The actuary uses an investment return assumption of 7.50% before fees and expenses in balancing projected obligations, projected contributions, and projected returns on assets. The return assumption after fees of administering the system and its investments is 7.00%. Assuming all of the actuarial assumptions are accurate, this 7.0% net return will suffice to: (1) assure the payment of statutorily required benefits, which includes a 1% Cost of Living Adjustment (COLA); and (2) maintain the reduction of the level of the unfunded liability (if any) on the scheduled amortization (one year at a time). The assumed 7.0% net return will not be sufficient to fund either discretionary COLAs (2-6%), retroactive COLAs, accelerate the amortization of the unfunded liability, build a stabilization reserve, or allow for gain-sharing distributions.

#### (b) Inflation and Salary Assumptions

This 7.50% rate before fees and 7.00% rate net of fees assume an inflation rate of 3.25% and an annual general state salary growth rate of 3.75%. To the extent that either inflation or salary growth are higher or lower than these rates, then the investment returns needed will also be higher or lower than the assumed 7.00% net, although not on a 1:1 ratio.

#### (c) Relation to Funding Policy

As set out in the Board's funding guidelines, to the extent investment markets allow, it is the desire of the Board to provide discretionary COLAs, accelerate the amortization of any unfunded liability, and provide for gain-sharing. It is also the goal of the Board to maintain a reasonable amortization of any unfunded liability, and not to exceed the 25 year amortization period set by statute. Therefore, it is the goal of the Board to set an expected rate of return above the actuarially assumed return so that (1) discretionary COLAs will have a reasonable chance of being consistently funded and (2) the scheduled amortization of any unfunded liability is not unreasonably jeopardized. Returns above that amount will be used to build a stabilization reserve and to distribute to the System participants through gain-sharing.

#### (d) Periodic Specific Return Goals

Because of the inflation sensitivity of both the returns needed by the System and the size of annual COLAs, an exact target return (either real or nominal) cannot be set in advance. Nonetheless, under most reasonable actuarial assumptions, PERSI has a relatively stable real return goal of between 4.75% - 5.25% if consistent funding of discretionary COLAs and providing for gain sharing is included as an objective. Consequently, specific return goals for upcoming periods will be set out in the strategic asset allocations periodically adopted by the Board.

#### 2. Investment Risk and Asset Allocations

#### (a) Diversification Among Asset Classes

In controlling the risk level that is appropriate for the Trust, the Board will diversify the assets of the Trust among various asset classes as the Board may from time to time adopt as appropriate asset classes. The specific asset classes to be used will be set in conjunction with the asset allocation adopted from time to time by the Board.

#### (b) Review of Asset Classes and Asset Allocation

In setting allocations, the Board will focus on assuring that the expected long-term returns of the System will meet expected long-term obligations with the appropriate level of risk sufficient to meet those objectives. Unless circumstances materially change, the Board will at least once every five years determine the appropriate asset classes for the investment of Trust assets and conduct asset allocation studies to help determine the long term strategic allocations among desired asset classes so as to meet long-term return objectives with the appropriate level of risk.

#### (c) Content of Asset Allocations

The asset allocation will set out:

- the asset classes to be used,
- the long-term "normal" percentage of assets to be invested in each asset class,
- the short to intermediate term ranges that will be considered allowable temporary deviations from the normal allocation,
- the investment risk and return expectations for each asset class,
- the numerical investment return and risk expected to be realized, and
- the relation of the expected investment return to the real and actuarially assumed investment return.

#### (d) Strategic Policies

In addition to asset allocation, the Board may from time to time authorize or adopt strategic policies. "Strategic policies" are actions by the Board to allow investment in asset types that have not been singled out as "asset classes" in the asset allocation process, to overweight particular sectors within an asset class, or to employ particular strategies in the investment of Trust assets. The purposes of these actions are either to increase the return above the expected return or to reduce risk.

#### **IV. Investment Structure**

#### A. Overall Structure

In making specific investment policy decisions, the Board will have as an overall goal a flexible, simplified structure with clear roles and accountability.

#### 1. Board Ultimately Responsible

The Board is ultimately responsible for all investment activities. In exercising this responsibility, the Board will hire investment personnel and agents and delegate various investment functions to those personnel and agents. Where the Board does not delegate investment powers or duties, the Board will either satisfy itself that it is familiar with such matters, or will retain persons who are familiar with such matters to consult or assist the Board in the exercise of those responsibilities. Where the Board delegates a responsibility, it will be delegated to a person who is familiar with such matters, and the Board will monitor and review the actions of those to whom responsibilities are delegated.

#### 2. General Roles and Responsibilities of Board and Agents

The Board will favor a structure that accommodates a citizen Board and a small staff. The Board and staff will concentrate their activities on:

- making strategic decisions, primarily concerning asset allocation and strategic policies;
- adjusting the mix between passive and active managers depending on, among other considerations, near-term concerns regarding the U.S. and other capital markets;
- delegating and monitoring all other activities, including hiring and monitoring investment managers; and
- maintaining a reporting system that provides a clear picture of the status of the fund on a reasonably concurrent basis to both the Board and PERSI's constituencies.

The Board will rely on outside agents, and primarily investment managers, to be responsible for nonstrategic decisions. This responsibility includes those investment decisions with shorter-term consequences such as the best near-term securities, regions, asset types, or asset classes.

#### B. Direct (Non-Delegated) Responsibilities of the Board

#### 1. Specific Responsibilities

The Board will be directly responsible for

- Setting investment policy,
- Determining the investment structure of the Trust,
- Determining the asset classes to be utilized,
- · Setting the asset allocation,
- Determining or authorizing strategic policies;
- Hiring agents to implement the asset allocation;
- Hiring agents to implement strategic policies; and
- Monitoring the compliance of those agents with the investment policies and allocations determined by the Board.

#### 2. Delegation and Monitoring of Specific Investment Activities

The Board will normally delegate investment decisions concerning specific securities or assets, or the tactical allocations of assets among asset types, to outside agents. The Board will retain direct responsibility for the monitoring of the activities of those agents through periodic reports from its staff or consultants. The Board may choose to exercise direct investment responsibility if unusual market conditions or other circumstances so indicate.

#### C. Employees, Consultants, and Advisors to the Board

#### 1. Investment Staff

#### (a) Duties of Chief Investment Officer and Other Staff

The Board will hire a Chief Investment Officer and such other staff as it considers appropriate who will be generally responsible for the oversight of the investment of Trust assets, and, as part of that overall responsibility, will: (1) supervise, monitor, and evaluate the performance of the investment managers hired by the Board to assure compliance with investment policy and individual guidelines; (2) assist the Board in developing and adjusting investment policy, including reviewing and modifying the asset allocation as conditions warrant; (3) research current market conditions, evaluate new products, and seek out new approaches to improve portfolio return, reduce risk, and reduce costs and fees; (4) work with the consultants, custodians, investment managers, and other agents in the performance of their assigned duties; and (5) assist the Board with education and other efforts to promote good decision making. Except in special circumstances, PERSI staff will not be responsible for the investment, purchase, or sale of specific assets.

#### (b) Allocation of New Net Contributions

The Chief Investment Officer shall allocate new net contributions to or withdraw net distributions from the system among investment managers in accordance with the strategic and tactical ranges established by the Board in the asset allocation. The Chief Investment Officer shall report to the Board regularly on the allocation of new net contributions or the withdrawal of net distributions.

#### (c) Tactical Asset Allocation and Rebalancing

With prior notice to the Board, the Chief Investment Officer may shift assets among managers (including between passive and active managers) as long as the asset allocation is maintained within the strategic ranges. If conditions do not permit giving prior Board notice, the Chief Investment Officer is authorized to move assets among investment managers within the ranges established by the Board. If such action is taken, the Chief Investment Officer shall notify the Chairman of the Board as soon as is practical either that action is contemplated or has been taken, as circumstances warrant.

#### (d) Minimum Qualifications of Chief Investment Officer

The Chief Investment Officer shall at least: (a) have a graduate degree in finance, law, or business administration or (b) be a Chartered Financial Analyst; or (c) have three or more years of experience in the investment of trust assets.

#### 2. Actuaries

The Board will hire an actuary to provide studies that will: (1) determine the long term obligations faced by the System through annual actuarial valuations, (2) set out return objectives or assumptions that will be sufficient to meet those obligations; and (3) provide reviews at least once every four years of the actuarial valuation process, including updating the projections and assumptions in light of the experience of the System. The Board will set its long-term return objectives after considering information provided by those studies.

#### 3. Investment Consultants

The Board will hire a qualified independent consultant, whose relationship does not impose a conflict of interest with the Board or staff, to provide investment performance measurement at least quarterly with the report available to the Board within two months of the quarter end. The report will at least compare actual investment returns of the System -- in total, by each asset class, and for each managed portfolio -- with both the investment objectives of the System and a with an appropriate benchmark and peer group. The Board may hire other independent investment consultants as needed to assist the Board in the management of its investment responsibilities, including, but not limited to: (1) performing asset allocation studies, and reviewing and recommending modifications of the asset allocation as conditions warrant; (2) assisting in monitoring the investment managers to assure they are in compliance with the investment policy and their individual guidelines; (3) performing manager evaluations and searches as may be necessary; and (4) assisting in the development and adjustment of investment policy. Except for consultants retained solely for purposes of performance measurement, consultants will be fiduciaries of the Trust.

#### D. Managers or Agents with Delegated Responsibilities

#### 1. Custodian

#### (a) Responsibilities

The Board will hire custodians and other agents who will be fiduciaries of the Trust and who will assume full responsibility for the safekeeping and accounting of all assets held on behalf of the Trust. Among other duties, as may be agreed to, the custodian will be responsible for: (a) the receipt, delivery, and safekeeping of securities; (b) the transfer, exchange, or redelivery of securities; (c) the claiming, receipt, and deposit of all dividend, interest, and other corporate actions due the Trust; (d) the daily sweep of all uninvested funds into a cash management account or accounts; and, (e) the provision of reports to PERSI upon agreed time intervals that will include all purchases and sales of securities, all dividend declarations on securities held by the Trust, a list of securities held by the Trust, a valuation of those securities, and a cash statement of all transactions for the account of the Trust. Unless the Board provides otherwise, the custodian will also be responsible for monitoring class action litigation, filing and collecting claims on PERSI's behalf, and reporting to PERSI on such activities.

#### (b) Authorization of Collective Investment Trusts

Assets of the Trust may be invested in any collective investment trust, which at the time of the investment provides for the pooling of the assets of plans described in Section 401(a) of the Internal Revenue Code of 1986, as amended, and which is exempt from Federal income tax. Assets of the Trust may be commingled with assets of other trusts if invested in any collective investment trust authorized by this policy. The provisions of the trust agreement, as amended by the trustee thereof from time to time, of each collective investment trust in which Trust assets are invested are by this reference incorporated as a part of the trust estate comprising the Trust. The provisions of the collective investment trust will govern any investment of Trust assets in that trust.

#### 2. Investment Managers

The Board will hire investment managers who will be fiduciaries of the Trust and who will be responsible for the investment of Trust assets in specific securities or assets within or among the asset classes.

#### (a) Minimum Qualifications

Investment managers shall be registered with the Securities and Exchange Commission (unless they are banks, insurance companies, or other category exempted from such registration requirements), have been in the business of investment management at least two years (or the main personnel of the investment management firm have worked together in the business of investment management for at least two years), and, usually, have other United States pension fund assets under management.

#### (b) Guidelines

Investment Managers shall manage assets in accordance with additional guidelines established by contract and as may be added to or modified from time to time. The additional guidelines will contain minimum diversification requirements that must be followed by that manager. These guidelines will also set out the investment return expected to be achieved by that manager, and shall be linked to a benchmark that represents the passive index fund that would be used to replace the manager's assignment.

#### (c) Responsibilities and Discretion

Subject to the restrictions set out in this policy or as may be set out in individual contracts or guidelines, an investment manager shall have full discretionary power to direct the investment, exchange, and liquidation of the assets entrusted to that manager. The manager shall place orders to buy and sell securities and, by notice to the custodian, cause the custodian to deliver and receive securities on behalf of the Trust.

#### (d) Corporate Governance

The Board, unless otherwise stated, will delegate the voting of proxies to the investment manager or custodian. The Board will adopt and from time to time modify a proxy voting policy. The staff will forward PERSI's Proxy Voting Policy to investment managers; however the investment managers will normally have discretion to vote proxies according to their respective proxy voting policies, provided they vote those proxies in the best interest of the System. The Board may from time to time take any other action it deems appropriate in exercising PERSI's proxy voting powers, including but not limited to directing staff to vote individual proxies in a particular manner.

#### (e) Transactions and Brokerage

All securities transactions shall be executed by reputable broker/dealers or banks, and shall be on a best price and best execution basis.

#### 3. Use of Passive and Active Managers

#### (a) Purpose and Use of Active Management

The Board recognizes that passive (index fund) investing has lower costs than active investing, with regard to both management fees and transaction costs. Further, the Board also recognizes that there is uncertainty concerning whether active investing can generally outperform passive investing, particularly in the large, liquid, and efficient portions of the capital markets. Also, the Board has great confidence that a passive investment of assets in an efficient asset allocation will likely meet long-term (20 year) obligations.

Contribution rates, COLAs, and the ability to provide for gain-sharing, however, are based on 1-5 year returns. The Board is concerned that over 1-5 year periods the ability to consistently fund COLAs and to keep contribution rates stable are in considerable jeopardy from two sources: (1) expected "normal" market fluctuations are such that annual returns will likely not meet hurdle rates approximately 40% of the time, with actual negative returns to be expected once every six years; and (2) that most of the

Trust assets under the asset allocation will be invested in U.S. capital markets, and are thus vulnerable to poor U.S. returns.

One purpose of active management of Trust assets is to address these two concerns. Active managers will be hired for the purpose of providing greater stability of returns, and better returns, than would be achievable under purely passive management over rolling 3-5 year periods. Active managers will be responsible for timing of markets and the tactical allocation of assets among and within the capital markets (including between the U.S. and international markets).

In addition to providing extra returns, active managers will also be employed to smooth returns, provide higher long-term returns, provide protection in adverse markets, and to add exposure and additional diversification to the portfolio than that achievable solely through investment in passive indices representing the strategic asset allocation and strategic policies.

#### (b) Structure

In using outside managers, the Board will favor a structure using a reasonable number of managers with broad mandates and benchmarks.

Passive managers will be favored for the core, liquid, efficient markets (such as S&P 500 stocks and U.S. Government/Credit bonds). Active managers will be favored for relatively inefficient markets.

Global managers will be used to provide flexibility in reacting to near-term concerns that may arise concerning any particular region or market, particularly the U.S. capital markets, and to provide an appropriate balance between efficient long-term asset allocations (which favor US assets) and near-term allocations (which have a greater preference for international assets) to meet the real (inflation adjusted) return needs of the System.

Assets under the management of global equity managers will be considered US equity assets for purposes of asset allocation. Consequently, actual allocations to international equities in the overall portfolio from time to time may be above that in the stated asset allocation due to the activities of the global equity managers.

#### (c) Balance between Passive and Active Management

The balance between active and passive management will be set from time to time with the following considerations in mind: concentration of active investment efforts where there is the most potential for excess returns, implementation of views concerning the state of the U.S. and international capital markets, and reduction of fees and other costs.

#### (d) Monitoring Standards

Active managers will be monitored under two standards: First, over rolling 3-5 year periods, managers will be expected to exceed, after fees, the benchmark index that represents the passive alternative to the manager indices, and to rank in the top half of the universe of managers that best fits that manager's mandate. Second, over shorter periods of time, managers will be expected to maintain key personnel, a consistent style, and investment capability. Passive managers will be monitored on their ability to track their benchmark index over both short (1 quarter to one year) and long (3 to 5 year) periods. The Board may consider other information it considers relevant, including composite manager indices, in determining whether to retain or terminate managers.

#### V. Asset Class Policies

#### A. U.S. Equities

#### 1. Objective

The overall objective of the U.S. equity or Broad Domestic Equity asset class is to obtain, over time, a return after fees that equals or exceeds the returns of the Russell 3000 Index, both absolutely and on a risk-adjusted basis. For assets under the management of global equity managers, the objective for near-term periods (approximately 5 years or sooner) will be to achieve a return after fees that is equal to or exceeds the returns of the MSCI World Index or MSCI All Country World Index, both absolutely and on a risk-adjusted basis.

#### 2. Allowable Investments

Managers may invest in stocks that do not pay dividends. Managers may invest in equity securities outside of the Russell 3000 Index, and global equity managers may invest in equity securities outside of the MSCI World Index. Managers may use derivative securities for purposes of enhancing liquidity, reducing transaction or other costs, or partially hedging an existing exposure in the portfolio.

#### 3. Manager Styles

Managers for the U.S. equity asset class may include index funds, style managers (such as value, growth, and capitalization), "core" managers, and global managers.

#### 4. Benchmarks

The Russell 3000 index will be the benchmark for the passive index funds, core managers, and global managers. For near term periods (approximately 5 years or less), the MSCI World or MSCI ACWI indexes are the benchmarks for global equity managers. Other style or capitalization indices maintained by a qualified organization may be used as the benchmark for style managers Active U.S. and global equity managers are expected to exceed, over rolling 3-5 year intervals, the applicable benchmark by 75 basis points annually after fees, and to rank in the top 50th percentile of active managers with similar mandates.

#### **B. International Equities**

#### 1. Objective

The overall objective of the International Equity Asset Class is to obtain, over time, a return after fees that equals or exceeds the returns of the MSCI Europe, Australasia, and Far East (MSCI EAFE) Index (unhedged), or the FT Actuaries World ex U.S. Index, both absolutely and on a risk-adjusted basis.

#### 2. Allowable Investments

Managers may invest in stocks that do not pay dividends. Managers may invest in American Depository Receipts or American Depository Shares. Managers may invest in equity securities of companies or in countries that are not included in the indices. Managers may use derivative securities for purposes of enhancing liquidity, reducing transaction or other costs, or partially hedging an existing exposure in the portfolio. Managers may, at their discretion, hedge the currency exposure of all or part of their portfolios. Managers may not overhedge their portfolio, although proxy hedging for purposes of liquidity and cost savings is allowed.

#### 3. Manager Styles

Managers for the International Equity asset class may include index funds, general international managers, and regional or specialized managers (such as emerging markets). The Board may from time to time hire a currency overlay manager to hedge the currency exposure in those portfolios where managers do not actively or normally consider hedging their exposure.

#### 4. Benchmarks

The MSCI EAFE Index (unhedged), will be the benchmark for the developed markets passive index fund. Active international developed markets managers may use as their benchmark either the MSCI EAFE index or the MSCI ACWI ex US index (unhedged). The MSCI Emerging Markets Free (MSCI EMF) index will be the benchmark for the emerging markets managers, both active and passive.

Regional or specialized indices (unhedged) maintained by a qualified organization may be used as the benchmark for other active managers. Active international equity managers are expected to exceed, over rolling 3-5 year intervals, the applicable benchmark by 75 basis points annually after fees, and to rank in the top 50th percentile of active managers with similar mandates.

#### C. Fixed Income

#### 1. Objectives

The overall objective of the Fixed Income Asset Class is to obtain, over time, a return after fees that equals or exceeds the returns of the Barclays Capital Aggregate Bond Index (Aggregate Bond Index) both absolutely and on a risk-adjusted basis.

The Fixed Income Asset Class shall consist of investments in mortgages and in both dollar and non-dollar fixed income securities. Mortgages shall consist of investments in mortgage backed securities, and direct ownership of commercial mortgages through the Idaho Commercial Mortgage Program.

The objective of the non-mortgage fixed income securities other than real return portfolios is to obtain, over time, a return after fees that equals or exceeds the returns of the Barclays Capital Government/Credit Bond Index (Government/Credit Bond Index) on a risk-adjusted basis. The overall objective of the mortgage securities is to obtain, over time, a return after fees that equals or exceeds the returns of the Barclays Capital Mortgage Index (Mortgage Index) on a risk-adjusted basis. The overall objective of the real return fixed income is to obtain, over time, a return after fees that equals or exceeds the returns of the Barclays Capital TIPS Index on a risk-adjusted basis.

#### 2. Allowable Investments

Managers may invest in debt securities that do not pay interest. Active managers may invest in securities in companies or countries that are not included in the indices. Managers may use derivative securities for purposes of enhancing liquidity, reducing transaction or other costs, or partially hedging an existing exposure in the portfolio. Fixed income managers may, at their discretion and to the extent allowed by their contracts and guidelines, use currency forward or futures markets as may be considered appropriate to implement fixed income strategies.

#### 3. Manager Styles

Managers in the Fixed Income asset class may include index funds, domestic bond managers, specialized managers, and global managers.

#### 4. Benchmarks

The Barclays Capital Government/Credit Index or Barclays Capital Aggregate Index will be the benchmark for all non-mortgage fixed income managers except real return fixed income managers. The Barclays Capital TIPS index will be the benchmark for real return fixed income managers. The Barclays Capital Mortgage Index will be the benchmark for all mortgage managers. The Barclays Capital Aggregate Index will be the benchmark for the asset class. Active fixed income managers are expected to exceed, over rolling 3-5 year intervals, the applicable benchmark by 25 basis points annually after fees, and to rank in the top 50th percentile of active managers with similar mandates.

#### D. Real Estate

#### 1. Objectives

Private equity real estate investments will be considered part of the U.S. Equity asset class. The overall objective of private equity real estate investments is to attain a 5% real rate of return overall, over a long-term holding period, as long as this objective is consistent with maintaining the safety of principal. The 5% real rate of return includes both income and appreciation, is net of investment management fees, and is net of inflation as measured annually by the Consumer Price Index. Over a short term basis, the objective is to earn a nominal minimum income yield of 5% on each individual investment, or inflation plus 3%, whichever is greater.

#### 2. Allowable Investments

Allowable private equity real estate investments include open-end and closed-end commingled real estate funds, direct real estate investments, publicly traded real estate investment trusts and other public real estate companies, private real estate companies and real estate operating venture entities. Allowable investments must be originated and managed by real estate advisors with substantial experience originating and managing similar investments with other institutional investors. The real estate asset sector is not intended to include solely debt investments; in particular, straight mortgage interests are considered part of the fixed income asset class. The real estate asset sector may include equity-oriented debt investments, including mezzanine loans, that conform with the return targets of the sector.

#### 3. Need for Income Component of Return

Upon closing, each real estate investment must have as a goal the expectation of an annual income return and overall holding period return measured primarily by realized return rather than expected capital appreciation. Thus, a significant portion of real estate investments made should be in existing income producing properties with measurable return expectations rather than purely development properties. However, existing properties with potential for physical enhancement, including development or redevelopment, are acceptable investments.

#### 4. Protection of the Trust

Investment vehicles should be chosen that will protect the Trust, including provision for investments that do not contain debt or liability with recourse beyond the Trust commitment to the related business entity, provision for inspection and evaluation of environmental hazards prior to the purchase of any specific property, and the provision of insurance coverage to protect against environmental and natural hazards.

#### 5. Reporting

A comprehensive reporting system for individual investments, entities and funds will be maintained so that primary operational and economic characteristics are continually defined, and underperforming investments can be identified and remediated. Active asset and portfolio management is required for the management of all non-publicly traded real estate investments. Investment managers shall be required to present periodic operational reports within approved formats, including statements of fair value, audited financial statements and annual business plans.

#### 6. Benchmarks

The MSCI US REIT, Dow Jones Select REIT,NAREIT all Equity, or Wilshire REIT index will be the benchmark for the passive REIT index fund. The National Council of Real Estate Investment Fiduciaries (NCREIF) Property Index or the Open End Core Equity (NFI-ODCE) Value with net will be the benchmarks for the open-end and closed-end funds and private real estate. The asset class in total will be benchmarked against the Russell 3000 index.

#### 7. Asset Allocation

For purposes of asset allocation, real estate investments will be treated as part of the U.S. equity asset class.

#### E. Alternative Investments

#### 1. Definition and Board Approval

The Board may from time to time authorize the investment of Trust assets in entities or structures that do not fit the asset descriptions listed above. Examples of such investments are venture capital partnerships, private equity, leveraged buy-out funds, private debt, and direct ownership of individual assets such as oil and gas partnerships. These investments shall only be entered into upon the recommendation of a qualified consultant after due diligence and with approval by the Board or a subcommittee appointed by the Board to review the recommendation. Subsequent investments with a previously approved alternative investment manager do not require additional specific approvals by the Board or subcommittee.

### 2. Objectives and Benchmarks

If the alternative investment is an equity investment, the objective for the investment will be to exceed, over time and after fees, the return achieved by the Russell 3000 Index times 1.35. If the alternative investment is a debt investment, then the objective will be to exceed, over time and after fees, the returns achieved by the Barclays Capital Government/Credit Index plus 3%. It is recognized that these investments may experience greater volatility than the comparable publicly traded securities and indices.

#### 3. Asset Allocation

For purposes of asset allocation, alternative equity investments will be treated as part of the U.S. equity asset class, and alternative debt investments will be treated as part of the fixed income asset class.

#### **VI. Strategic Asset Allocation**

The following tables summarize the strategic asset allocation of the Trust, including the expected net return and risk of each asset class, the strategic normal asset allocation and allowable ranges, and the expected risk and net return of the Trust as compared to the actuarial assumptions.

(Expected Returns are before fees and expenses)							
Asset Class	Expected Return*	Expected Risk	Strategic Normal	Strategic Ranges			
Equities			70%	66% - 77%			
Broad Domestic Equity	9.15%	19.00%	55%	50% - 65%			
International	9.25%	20.20%	15%	10% - 20%			
Fixed Income	3.05%	3.75%	30%	23% - 33%			
Cash	2.25%	0.9%	0%	0% - 5%			
Total Fund	Expected Return*	Expected Inflation	Expected Real Return	Expected Risk			
Actuary	7.00%	3.25%	3.75%	n/a			
Portfolio * Expected arithmetic return net of	6.58%	2.25%	4.33%	12.67%			

#### VII. Deposit and Investment Risk Policy - GASB 40

#### A. Purpose

The Governmental Accounting Standards Board has identified that state and local governments have deposits and investments which are exposed to risks that may result in losses. GASB Statement number 40 (GASB 40) is intended to inform users of the financial statements about the risks that could affect the ability of a government entity to meet its obligations. GASB 40 has identified general deposit and investment risks as credit risk, including concentration of credit risk and custodial credit risk, interest rate risk, and foreign currency risk and requires disclosures of these risks and of policies related to these risks. This portion of the Investment Policy addresses the monitoring and reporting of those risks.

In general, the risks identified in GASB 40, while present, are diminished when the entire portfolio is viewed as whole. For example, interest rate risk experienced by fixed income instruments often react in the exact opposite direction as that experienced by equities. Thus, interest rate exposure as set out in GASB 40 will not reflect the cross-influences of impacts across the broad range of investments that make up the PERSI portfolio. And, in fact, the general underlying measures used in GASB 40 across most of the risks identified (credit, concentration, and interest rate risk in particular) were tools that were developed primarily for portfolios dominated by fixed income investments, and are often only poorly transferred, if at all, to portfolios, like PERSI's, that are dominated by equity interests.

Consequently, it is the policy of PERSI that the risks addressed in GASB 40 are to be monitored and addressed primarily through the guidelines agreed to by those managers, and by regular disclosures in reports by managers of levels of risks that may exceed expected limits for those portfolios.

## B. Specific Areas of Risk

#### 1. Credit Risk

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

Policy: Managers will provide PERSI with expected credit risk exposures in their portfolio guidelines. If the actual credit risk exposure falls outside of these expectations, managers will be required to report these occurrences to Staff and these disclosures are to be made available to the Board.

#### 2. Custodial Credit Risk

Summary: Custodial credit risk is the risk that in the event of a financial institution or bank failure, the System would not be able to recover the value of their deposits and investments that are in the possession of an outside party.

Policy: PERSI minimizes exposure to custodial credit risk by requiring that investments, to the extent possible, be clearly marked as to PERSI ownership and further to the extent possible, be held in the System's name.

#### 3. Concentration of Credit Risk

Summary: Concentration of credit risk is the risk of loss that may be attributed to the magnitude of a government's investment in a single issue.

Policy: Managers will provide PERSI with expected concentration of credit risk exposures in their portfolio guidelines. If the concentration of credit risk exceeds expectations, managers are to be required to report these occurrences to Staff and these disclosures are to be made available to the Board. For the portfolio as a whole, staff will report to the Board at a regular Board meeting if the exposure to a non-US government guaranteed credit instrument exceeds 5% of the total PERSI portfolio.

#### 4. Interest Rate Risk

Summary: Interest rate risk is the risk that changes in interest rates will adversely affect the fair value of an investment. Interest rate risk to PERSI's fixed income portfolio is monitored using the effective duration methodology. Effective duration measures the volatility of the price of a bond given a change in interest rates, taking into account the optionality on the underlying bond.

Policy: Managers will provide PERSI with the expected portfolio duration in their portfolio guidelines. If the duration of the portfolio differs from expectations, managers are to be required to report these occurrences to Staff and these disclosures are to be made available to the Board.

#### 5. Foreign Currency Risk

Summary: Foreign currency risk is the risk that changes in exchange rates will adversely impact the fair value of an investment. PERSI's currency risk exposures, or exchange rate risk, primarily reside within the international equity investment holdings.

Policy: The PERSI Board recognizes that international investments (equity or fixed income) will have a component of currency risk associated with it. Currency risk and hedging exposures are dependent on the underlying international exposure, which fluctuates over time. The individual manager guidelines will outline the expected currency exposures (either specifically or through ranges of security exposures to particular currency areas) of the underlying portfolio and if the actual currency exposure differs from the expected, managers are to be required to report these occurrences to Staff and these disclosures are to be made available to the Board.



Helping Idaho public employees build a secure retirement.





950 W. Bannock Street Suite 510 Boise, ID 83702 Tel +1 208 342 3485 Fax +1 208 342 5667 www.milliman.com

October 21, 2016

Retirement Board Public Employee Retirement System of Idaho State of Idaho P.O. Box 83720 Boise, ID 83720

#### Members of the Board:

Milliman has performed annual actuarial valuations for the Public Employee Retirement System of Idaho (PERSI) since the System's inception. It is anticipated that future actuarial valuations will be performed every year with the next valuation to be as of July 1, 2017. Various benefit increases have occurred since the System was established in 1965. The most recent significant benefit changes were effective July 1, 2000.

#### **Contribution Rates**

The financing objective of the System is to establish contribution rates that will tend to remain level as percentages of payroll. From 1993 to 2016, the total contribution rate has been between 15.82% and 18.75%; year by year detail including employer and member rates is shown in the table on the following page.

At July 1, 2002, the combined overall contribution rate was 15.78%. Our July 1, 2002 valuation found that the contribution rates were not sufficient to amortize the unfunded actuarial accrued liability within 25 years of the valuation date, as required by Section 59-1322, Idaho Code. Therefore, in November 2002, the Board approved three 1% contribution rate increases to take effect on July 1, 2004, July 1, 2005, and July 1, 2006. Effective July 1, 2003, the contribution rate for Fire and Police employers was also increased by 0.1% to offset the cost of the \$100,000 duty related death benefit. The July 1, 2004 contribution rate increase took effect as scheduled. Due to investment gains, the other two increases were deferred and ultimately in October 2007 the Board cancelled the scheduled contribution rate increases.

The July 1, 2009 valuation found that the contribution rates were insufficient to amortize the unfunded actuarial accrued liability within 25 years of the valuation date. Therefore, in December 2009, the Board approved three contribution rate increases to take effect: 1.5% on July 1, 2011, 1.5% on July 1, 2012, and 2.28% on July 1, 2013. In December 2010, these scheduled rate increases were each delayed one year. In December 2011, these scheduled rate increases were again each delayed one year. On July 1, 2013, the first contribution rate increase went into effect as scheduled. In October 2013, the remaining two scheduled rate increases were each delayed one year; in September 2014 these increases were cancelled altogether.

The historical changes in contribution rates since 1993 are shown in the table below. Note that weighted total values may change even if rates by group do not change.



		Weight	ted Total	l Total Fire & Police		General/Teachers	
Year of		Member	Employer	Member	Employer	Member	Employer
Change	Total Rate	Rate	Rate	Rate	Rate	Rate	Rate
1993	17.16%	6.51%	10.65%	7.82%	10.87%	6.38%	10.63%
1994	18.75	7.12	11.63	8.53	11.85	6.97	11.61
1998	17.78	6.75	11.03	8.10	11.25	6.60	11.01
2000	15.78	5.98	9.80	7.21	10.01	5.86	9.77
2003	15.82	6.01	9.81	7.21	10.11	5.86	9.77
2004	16.84	6.41	10.43	7.65	10.73	6.23	10.39
2008	16.88	6.44	10.44	7.65	10.73	6.23	10.39
2009	16.89	6.45	10.44	7.69	10.73	6.23	10.39
2013	18.39	7.03	11.36	8.36	11.66	6.79	11.32

Our July 1, 2016 actuarial valuation found that the System's current rates are sufficient to pay the System's normal cost rate of 14.87%. As of July 1, 2016, there is an unfunded actuarial liability of \$2,206.1 million. The current rates in effect at July 1, 2016 are sufficient to amortize the Unfunded Actuarial Accrued Liability (UAAL) in 36.6 years, which is higher than the 25-year amortization period required by statute.

## **Funding Status**

Based on the July 1, 2016 actuarial valuation, the unfunded actuarial accrued liability was increased by \$742.9 million due to an asset loss recognized as of July 1, 2016. Specifically, the System's assets earned a gross return before expenses of 1.78%, which is 5.72% below the actuarial assumption of 7.50%. All other actuarial experience gains and losses decreased the actuarial accrued liability by \$108.4 million. Thus, the total experience loss for the year was \$634.5 million.

The UAAL increased by \$68.5 million due to the March 1, 2016 Restoration of Purchasing Power COLA of 0.80%, and by \$13.2 million due to the adoption of new demographic assumptions based on PERSI's 2016 Experience Study. In addition, the UAAL decreased by \$0.3 million because actual contributions plus assumed investment returns were greater than the normal cost and the interest on the UAAL.

All of these items resulted in a total actuarial loss of \$715.9 million and a change in funding status from a 90.4% funding ratio on July 1, 2015 to 86.3% on June 30, 2016. The funding ratio is the ratio of the actuarial value of the assets over the value of the actuarial accrued liability.

#### Comparison to GASB Statement No. 67 Liabilities

The long-term expected rate of return on investments is 7.50%, including 0.40% for expected investment expenses and 0.10% for expected administrative expenses. For purposes of determining the System's funding status and UAAL, we use a discount rate that is net of all expenses (7.00%). All figures shown in this report have been calculated using this discount rate.

This is in contrast to the discount rate used to determine the Total Pension Liability (TPL) and Net Pension Liability (NPL) for purposes of GASB reporting. According to GASB Statement 67, the discount rate used to calculate TPL and NPL must be net of investment expenses but not administrative expenses. Therefore, TPL and NPL have been determined using a discount rate of 7.10%. Results and further details on these items can be found in our GASB 67 Report.

#### **Assumptions**

Our July 1, 2016 actuarial valuation report presented summaries of the actuarial assumptions and methods used in the valuation. The last major experience study, completed in June 2016, covered the period July 1, 2011 through June 30, 2015. The next major experience study, to be completed in 2018, will cover the period July 1, 2013 through June 30, 2017.

#### **Certification Statement**

In preparing this letter, we relied, without audit, on information (some oral and some in writing) supplied by PERSI's staff. This information includes, but is not limited to, statutory provisions, member census data, and financial information. We found this information to be reasonably consistent and comparable with data used for other purposes. The valuation results depend on the integrity of this information. If any of this information is inaccurate or incomplete our results may be different and our calculations may need to be revised.

All costs, liabilities, rates of interest, and other factors for the System have been determined on the basis of actuarial assumptions and methods which are individually reasonable (taking into account the experience of the System and reasonable expectations); and which, in combination, offer our best estimate of anticipated experience affecting the System. Further, in our opinion, each actuarial assumption used is reasonably related to the experience of the System and to reasonable expectations which, in combination, represent our best estimate of anticipated experience under the System. We believe that all of these assumptions and methods meet the parameters set by Actuarial Standards of Practice (ASOPs).

Future actuarial measurements may differ significantly from the current measurements presented in this report due to such factors as the following: plan experience differing from that anticipated by the economic or demographic assumptions; changes in economic or demographic assumptions; increases or decreases expected as part of the natural operation of the methodology used for these measurements (such as the end of an amortization period or additional cost or contribution requirements based on the plan's funded status); and changes in plan provisions or applicable law. Due to the limited scope of our assignment, we did not perform an analysis of the potential range of future measurements. The Retirement Board has the final decision regarding the appropriateness of the assumptions and actuarial cost methods.

Actuarial computations presented in this report are for purposes of determining the recommended funding amounts for the System. Actuarial computations under GASB Statements No. 67 and 68 are for purposes of fulfilling financial accounting requirements. The computations prepared for these two purposes may differ as disclosed in our report. The calculations in the enclosed exhibits have been made on a basis consistent with our understanding of the System's funding requirements and goals. Determinations for purposes other than meeting these requirements may be significantly different from the results contained in this report. Accordingly, additional determinations may be needed for other purposes.

Milliman's work is prepared solely for the internal business use of the System. To the extent that Milliman's work is not subject to disclosure under applicable public records laws, Milliman's work may not be provided to third parties without Milliman's prior written consent. Milliman does not intend to benefit or create a legal duty to any third party recipient of its work product. Milliman's consent to release its work product to any third party may be conditioned on the third party signing a Release, subject to the following exception(s):

(a) The System may provide a copy of Milliman's work, in its entirety, to the System's professional service advisors who are subject to a duty of confidentiality and who agree to not use Milliman's work for any purpose other than to benefit the System.

(b) The System may provide a copy of Milliman's work, in its entirety, to other governmental entities, as required by law.

No third party recipient of Milliman's work product should rely upon Milliman's work product. Such recipients should engage qualified professionals for advice appropriate to their own specific needs.

The consultants who worked on this assignment are pension actuaries. Milliman's advice is not intended to be a substitute for qualified legal or accounting counsel.

The signing actuaries are independent of the plan sponsor. We are not aware of any relationship that would impair the objectivity of our work.

On the basis of the foregoing, we hereby certify that, to the best of our knowledge and belief, this letter is complete and accurate and has been prepared in accordance with generally recognized and accepted actuarial principles and practices. We are members of the American Academy of Actuaries and Fellows of the Society of Actuaries and meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion contained herein.

The enclosed Exhibits 1 through 9 provide further related information. Milliman is completely responsible for these exhibits. Specifically, they are:

•	Exhibit 1	Summary of Actuarial Assumptions and Methods
•	Exhibit 2	Schedule of Active Member Valuation Data

- Schedule of Retiree and Beneficiary Valuation Data Exhibit 3
- Exhibit 4 Schedule of Funding Progress
- Solvency Test Exhibit 5
- Analysis of Actuarial Gains or Losses Exhibit 6
- Exhibit 7 Schedule of Contributions from the Employer and All Other

Contributing Entities

Schedule of Contributions from the Employer Expressed as a Exhibit 8

Percentage of Payroll

Provisions of Governing Law Exhibit 9

We would like to express our appreciation to Don Drum, Executive Director of the System, and to members of his staff, who gave substantial assistance in supplying the data on which this report is based.

Respectfully submitted,

Mark C. Olleman, F.S.A., M.A.A.A. Principal and Consulting Actuary

Jeffrey D. Bradley, F.S.A., M.A.A.A. Principal and Consulting Actuary

ffy O. Brully

MCO/JDB/trs



## EXHIBIT 1: SUMMARY OF ACTUARIAL ASSUMPTIONS AND METHODS EFFECTIVE JULY 1, 2016

## 1. Investment Return (Adopted July 1, 2012)

The annual rate of investment return on the assets of the System is assumed to be 7.50% (including 0.50% for expenses) compounded annually.

## 2. Actuarial Value of Assets (Adopted July 1, 1994)

All assets are valued at market as of the valuation date.

#### 3. Actuarial Assumptions

The actuarial assumptions and methods were adopted by the Board based upon recommendations from the retained actuary. The actuarial assumptions are based on periodic studies of the System's actual experience.

## 4. Mortality (Adopted July 1, 2014)

#### Contributing Members, Service Retirement Members, and Beneficiaries

#### Teachers

Males RP-2000 Combined Table for Healthy Individuals for males,

set back three years.

Females RP-2000 Combined Table for Healthy Individuals for females,

set back three years.

#### Fire & Police

Males RP-2000 Combined Table for Healthy Individuals for males,

with no offset.

Females RP-2000 Combined Table for Healthy Individuals for females,

set forward one year.

10% of Fire and Police active member deaths are assumed to be duty related.

This assumption was adopted July 1, 2008.

## General Employees and All Beneficiaries

Males RP-2000 Combined Table for Healthy Individuals for males,

set back one year.

Females RP-2000 Combined Table for Healthy Individuals for females.

set back one year.

All mortality tables are adjusted with generational mortality adjustments using projection scale AA as shown in Table A-8B of the July 1, 2016 valuation report. The projection scale is applied from the year 2000 to the year in which the mortality assumption is being applied.

#### Disabled Members

For disabled members, the mortality rates used in the valuation are the rates from the RP-2000 table for disabled individuals for respective sexes, with a one-year setback for males and a one-year set forward for females.

All mortality tables are adjusted with generational mortality adjustments using projection scale AA as shown in Table A-8B of the July 1, 2016 valuation report. The projection scale is applied from the year 2000 to the year in which the mortality assumption is being applied.

## 5. Service Retirement (Adopted July 1, 2016)

Annual rates of retirement assumed to occur among persons eligible for a service retirement are illustrated in the following table:

	Fire & Police		General Employees				
	_		Male		Fer	nale	
	First Year		First Year	_	First Year		
Age	Eligible	Thereafter	Eligible	Thereafter	Eligible	Thereafter	
55	21%	18%	22%	10%	26%	18%	
60	17	22	26	17	26	18	
65	40	40	33	50	37	52	
70	*	*	18	20	18	21	

	Teachers						
	M	ale	Female				
Age	First Year Eligible	Thereafter	First Year Eligible	Thereafter			
55	19%	5%	10%	10%			
60	30	18	26	18			
65	36	46	49	49			
70	*	*	*	*			

<sup>\*</sup> For all ages older than the age indicated, retirement is assumed to occur immediately.

## 6. Early Retirement (Adopted July 1, 2016)

Annual rates of retirement assumed to occur among persons eligible for a reduced early retirement benefit are illustrated in the following table:

		General Employees		Teachers	
Age	Fire & Police	Male	Female	Male	Female
50	4%	*	*	*	*
55	5	3%	3%	6%	6%
60		5	6	14	12

<sup>\*</sup> For all ages younger than the age indicated, withdrawal is assumed to occur (see Section 7).



## 7. Other Terminations of Employment (Adopted July 1, 2016)

Assumed annual rates of termination are illustrated below. Rates are based only on years of service.

Years of	Fire and	General Employees		Teachers	
Service	Police	Male	Female	Male	Female
5	6.6%	8.8%	10.3%	5.5%	6.0%
10	4.2	5.5	6.4	3.1	3.1
15	2.8	3.5	4.0	1.9	1.8
20	1.7	2.4	2.9	1.3	1.3
25	1.5	1.7	2.5	1.2	1.2
30	1.5	1.5	2.5	1.2	1.2

## 8. Disability Retirement (Adopted July 1, 2016)

Annual rates assumed for disability retirement are illustrated in the following table:

		General Employees		Teachers		
Age	Fire & Police	Male	Female	Male	Female	
25	.00%	.00%	.00%	.00%	.02%	
35	.01	.01	.01	.01	.01	
45	.04	.04	.03	.02	.02	
55	.20	.11	.10	.07	.10	

25% of Fire and Police active member disabilities are assumed to be duty related. This assumption was adopted July 1, 2009.

## 9. Future Salaries (Adopted July 1, 2016)

In general, the total annual rates at which salaries are assumed to increase include 3.75% per annum for increase in the general wage level of the membership plus increases due to promotions and longevity. The general wage level increases are due to inflation and increases in productivity. The total ultimate rates assumed are illustrated below.

Years of	Fire and	General Employees		Teachers	
Service	Police	Male	Female	Male	Female
5	7.02%	6.03%	6.45%	7.07%	7.17%
10	5.57	5.10	5.46	7.17	7.38
15	4.89	4.63	4.68	5.20	5.33
20	4.42	4.37	4.42	4.48	4.56

## 10. Vesting (Adopted July 1, 2016)

The following table illustrates the assumed probability that vested terminating members will elect to receive deferred benefits instead of withdrawing accumulated contributions.

	Fire and	General Employees		Teachers	
Age	Police	Male	Female	Male	Female
25	48%	52%	61%	75%	84%
35	53	71	70	79	88
45	65	76	73	82	85
55					

## 11. Growth in Membership (Adopted July 1, 2012)

In general, the combined effects of stable active membership and salary levels are assumed to produce a 3.75% average annual expansion in the payroll of covered members.

#### 12. Interest on Employee Contributions (Adopted July 1, 2016)

The credited interest rate on employee contributions is assumed to be 8.50%.

### 13. Postretirement Benefit Increases (Cost of Living Adjustments)

A nondiscretionary postretirement increase of 1% per year is assumed for the valuation. See Exhibit 3 for total discretionary and nondiscretionary increases granted by the Board for the past ten years.

#### 14. Actuarial Cost Method

The individual entry age actuarial cost method is used. The normal cost rates used in this valuation were calculated based on all current active members as of July 1, 2016, for each sex and type of employee in the valuation. The normal costs and projected fiscal year 2016 salaries for all active members were calculated. The ratio of the two is the aggregate normal cost rate. The current normal cost rate was adopted in October, 2016 in conjunction with the July 1, 2016 actuarial valuation.

The unfunded actuarial accrued liability (UAAL) created by this method, including gains and losses, is amortized as a level percentage of the System's projected payroll.

Commencing July 1, 2007, 1.49% of the payroll of higher education faculty covered by the Optional Retirement Program (ORP) is payable to PERSI until July 1, 2025. Commencing July 1, 1997, 3.83% of the payroll of community college and post-secondary vocational educational institutions covered by the ORP was payable to PERSI until July 1, 2011. The difference between the future ORP contributions and the actuarial accrued liability computed under the actuarial cost method is the portion of the actuarial accrued liability used to determine the UAAL, or funding reserve, for PERSI.

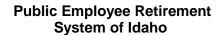
#### 15. Experience Studies

The last experience study was completed in 2016 for the period July 1, 2011 through June 30, 2015 and reviewed economic assumptions and all demographic assumptions except mortality. Economic assumptions and mortality will be studied in 2018 for the period from July 1, 2013 through June 30, 2017. Assumptions were adopted as noted.

#### 16. Recent Changes

Demographic assumptions were changed based on the 2016 Experience Study. These changes were first effective for the July 1, 2016 valuation.

The results reflect the March 1, 2016 Restoration of Purchasing Power COLA of 0.80%.



#### **EXHIBIT 2: SCHEDULE OF ACTIVE MEMBER VALUATION DATA**

Annual Salaries \* **Annual Valuation** Valuation Date Average % Increase in July 1 Number Payroll **Annual Pay** Average Annual Pay 2007 65,800 \$2,397,470,000 \$36,436 2.8% 2008 66,765 2,540,568,000 38,052 4.4 2.5 67,813 2,644,665,000 2009 38,999 2010 67,020 2,622,461,000 39,130 0.3 2011 65,798 2,572,044,000 39,090 -0.1 2012 65,270 2,567,659,000 39,339 0.6 2.2 2013 65,535 2,634,566,000 40,201 66,223 2014 2,676,344,000 40,414 0.5 2015 67,008 2,756,913,000 41,143 1.8 68,517 0.5 2016 2,833,369,000 41,353

<sup>\*</sup> Actuarial valuation payroll is computed as the sum of the annualized salaries for all active members, and differs from the actual payroll shown in the financial section of the annual report.

EXHIBIT 3: SCHEDULE OF RETIREE AND BENEFICIARY VALUATION DATA (1)

	Number		COLA Percentage
Total	Added	Removed	Increases Granted Previous March 1
29,619	2,101	920	3.8%
30,912	2,160	867	2.0
32,197	2,235	950	1.0
33,625	2,335	907	-1.48% + 2.48%
			Partial Restoration
35,334	2,652	943	1.0
37,150	2,769	953	1.0
38,947	2,815	1,018	1.0
40,776	2,852	1,023	1.0
42,657	2,889	1,008	1.70% + 2.30%
•		•	Partial Restoration
44,181	2,634	1,110	0.20% + 0.80% Partial Restoration
	29,619 30,912 32,197 33,625 35,334 37,150 38,947 40,776 42,657	Total         Added           29,619         2,101           30,912         2,160           32,197         2,235           33,625         2,335           35,334         2,652           37,150         2,769           38,947         2,815           40,776         2,852           42,657         2,889	Total         Added         Removed           29,619         2,101         920           30,912         2,160         867           32,197         2,235         950           33,625         2,335         907           35,334         2,652         943           37,150         2,769         953           38,947         2,815         1,018           40,776         2,852         1,023           42,657         2,889         1,008

## **Annual Benefits**

Valuation Date	Total Rolls	Added to	Removed		% Increase
July 1	End of Year	_ Rolls <sup>(2)</sup>	from Rolls	Average	in Average
2007	\$422,196,000	\$49,182,000	\$8,663,000	\$14,254	6.2%
2008	459,077,000	45,072,000	8,191,000	14,851	4.2
2009	491,946,000	42,698,000	9,829,000	15,279	2.9
2010	526,020,000	43,382,000	9,308,000	15,644	2.4
2011	567,933,000	51,647,000	9,734,000	16,073	2.7
2012	611,045,000	53,184,000	10,072,000	16,448	2.3
2013	651,466,000	51,630,000	11,209,000	16,727	1.7
2014	694,946,000	54,963,000	11,483,000	17,043	1.9
2015	754,201,000	70,985,000	11,730,000	17,681	3.7
2016	793,277,000	52,788,000	13,712,000	17,955	1.5

<sup>(1)</sup> Information regarding the number of retirees and beneficiaries added to, and removed from, the rolls was not used in the actuarial valuations.

<sup>(2)</sup> Includes postretirement increases.

EXHIBIT 4: SCHEDULE OF FUNDING PROGRESS (ALL DOLLAR AMOUNTS IN MILLIONS)

Actuarial Valuation Date	Actuarial Value of Assets	Actuarial Accrued Liabilities (AAL) (1)	Present Value of Future ORP Contributions	Unfunded Actuarial Accrued Liabilities (UAAL) (2)	Funded Ratio (3)	Covered Payroll	UAAL as a Percentage of Covered Payroll
July 1, 2007	\$10,945.8	\$10,431.9	\$59.5	\$(573.4)	105.5%	\$2,421.0	(23.7)%
July 1, 2008	10,402.0	11,211.8	60.9	748.9	93.3	2,578.9	29.0
July 1, 2009	8,646.0	11,732.2	59.6	3,026.6	74.1	2,683.5	112.8
July 1, 2010	9,579.8	12,187.9	52.3	2,555.8	78.9	2,684.4	95.2
July 1, 2011	11,360.1	12,641.2	48.5	1,232.6	90.2	2,627.9	46.9
July 1, 2012	11,306.2	13,396.7	47.0	2,043.5	84.7	2,619.6	78.0
July 1, 2013	12,053.5	14,172.9	45.3	2,074.1	85.3	2,697.6	76.9
July 1, 2014	13,833.1	14,928.1	42.7	1,052.3	92.9	2,702.9	38.9
July 1, 2015	13,956.7	15,488.2	41.3	1,490.2	90.4	2,791.1	53.4
July 1, 2016	13,884.2	16,128.3	38.0	2,206.1	86.3	2,909.3	75.8

- (1) Actuarial present value of benefits less actuarial present value of future normal costs based on entry age actuarial cost method.
- (2) Actuarial accrued liabilities less actuarial value of assets and present value of future ORP contributions. Amounts reported in this table do not include the value of any discretionary COLA or Gain Sharing allocations granted after the valuation date. If negative, amount is referred to as a funding reserve.
- (3) Funded Ratio is the ratio of the actuarial value of assets over the actuarial accrued liabilities less the present value of future ORP contributions
- (4) Covered Payroll includes compensation paid to all active employees on which contributions are calculated. Covered Payroll differs from the Active Member Valuation Payroll shown in Exhibit 2 which is an annualized compensation of only those members who were active on the actuarial valuation date.



**EXHIBIT 5**:

SOLVENCY TEST (ALL DOLLAR AMOUNTS IN MILLIONS)

		Actuaria	Accrued Liabilit	ies For			
				Active Members			
		Active		(Employer	Portion o	f Actuarial	Accrued
Actuarial	Actuarial	Member	Retirees and	Financed	Liabilities	Covered b	y Assets
Valuation	Value of	Contributions	Beneficiaries	Portion)			
Date	Assets	(A)	(B)	(C)	(A)	(B)	(C)
July 1, 2007	\$10,945.8	\$2,335.6	\$4,582.9	\$3,513.4	100.0	100.0	100.0
July 1, 2008	10,402.0	2,642.0	5,022.9	3,546.9	100.0	100.0	77.2
July 1, 2009	8,646.0	2,867.7	5,396.2	3,468.3	100.0	100.0	11.0
July 1, 2010	9,579.8	2,813.7	5,820.0	3,554.2	100.0	100.0	26.6
July 1, 2011	11,360.1	2,838.9	6,284.8	3,517.5	100.0	100.0	63.6
July 1, 2012	11,306.2	3,114.9	6,925.0	3,356.8	100.0	100.0	37.7
July 1, 2013	12,053.5	3,304.1	7,425.2	3,443.6	100.0	100.0	38.5
July 1, 2014	13,833.1	3,268.7	8,125.8	3,533.6	100.0	100.0	69.0
July 1, 2015	13,956.7	3,468.5	8,565.6	3,454.1	100.0	100.0	55.7
July 1, 2016	13,884.2	3,652.6	9,097.0	3,378.7	100.0	100.0	33.6

## EXHIBIT 6: ANALYSIS OF ACTUARIAL GAINS OR LOSSES (ALL DOLLAR AMOUNTS IN MILLIONS)

	Gain(Loss) for Period			
	2013-2014	2014-2015	2015-2016	
Investment Income Investment income was greater (less) than expected.	\$ 1,146.6	\$ (587.5)	\$ (742.9)	
Pay Increases Pay increases were less (greater) than expected.	155.9	91.7	165.5	
Membership Growth (Additional) liability for new members.	(16.9)	(17.9)	(13.6)	
Return to Employment Less (more) reserves were required for terminated members returning to work.	(10.7)	(12.4)	(11.3)	
Death After Retirement Retirees died younger (lived longer) than expected.	10.2	22.5	11.8	
Cost of Living Adjustment (COLA) Different Automatic COLA than expected. (1)	NA	68.5	NA	
Other Miscellaneous gains (and losses) resulting from other causes. (2)	(15.9)	(46.3)	(44.0)	
Total Gain (Loss) During the Period From Actuarial Experience	\$ 1,269.2	\$ (481.4)	\$ (634.5)	
Contribution Income Actual contributions were greater (less) than the normal cost and interest on the Unfunded Actuarial Accrued Liability.	(23.6)	43.5	0.3	
Non-Recurring Items Changes in actuarial assumptions caused a gain (loss) (3) Changes in actuarial methods caused a gain (loss) Changes in plan provisions caused a gain (loss) (4) Changes to Contribution Rate Increase Schedule	(76.2) None (159.2) 11.6	None None None <u>None</u>	(13.2) None (68.5) <u>None</u>	
Composite Gain (Loss) During the Period	\$ 1,021.8	\$ (437.9)	\$ (715.9)	

Note: Effects related to losses are shown in parentheses. Numerical results are expressed as a decrease (increase) in the actuarial accrued liability.

<sup>(1)</sup> For 2015, this reflects the increase in CPI of 0.20%.

<sup>(2)</sup> Reflects losses on active and inactive member experience.

<sup>(3)</sup> For 2013-2014, this reflects changes made to the mortality assumptions adopted according to the 2014 Experience Study. For 2015-2016, this reflects changes made to the demographic assumptions adopted according to the 2016 Experience Study

<sup>(4)</sup> For 2013-2014, this reflects the 0.70% discretionary and 2.30% retroactive COLA, effective March 1, 2015. For 2015-16 this reflects the 0.80% retroactive COLA, effective March 1, 2016.

# EXHIBIT 7: SCHEDULE OF CONTRIBUTIONS FROM THE EMPLOYER AND ALL OTHER CONTRIBUTING ENTITIES (ALL DOLLAR AMOUNTS IN MILLIONS)

Fiscal Year Ending	Covered Employee Payroll <sup>(1)</sup>	Actual PERSI Employer Contributions Dollar Amount <sup>(2)</sup>	Actual ORP Contributions Dollar Amount	Total Actual Employer Contributions	Actuarially Determined Contribution (ADC) (3)	Percentage of ADC Dollars Contributed
6/30/07	\$2,421.0	\$252.8	\$6.7	\$259.5	\$235.4	110%
6/30/08	2,578.9	269.2	4.1	273.3	251.4	109
6/30/09	2,683.5	280.2	4.4	284.6	232.0	123
6/30/10	2,684.4	280.2	4.7	284.9	260.3	109
6/30/11	2,627.9	274.3	4.8	279.1	326.5	85
6/30/12	2,619.6	273.5	3.7	277.2	327.9	84
6/30/13	2,697.6	281.6	3.8	285.4	295.5	97
6/30/14	2,702.9	307.1	3.9	311.0	325.0	96
6/30/15	2,791.1	317.0	4.2	321.2	327.1	98
6/30/16	2,909.3	331.1	4.5	335.6	298.7 (4)	112

<sup>(1)</sup> Computed as the dollar amount of the actual PERSI employer contribution made as a percentage of payroll divided by the Actual PERSI contribution rate expressed as a percentage of payroll.

<sup>(2)</sup> The actual PERSI employer contributions are expressed as a percentage of payroll. Employer contributions are made as a percentage of actual payroll in accordance with statute and the Board's Funding Policy. Thus, the actual employer contributions set by both statute and the Board's Funding Policy may differ from the computed Actuarially Determined Contribution (ADC), employer contribution rate for GASB disclosure purposes. Dollar amounts shown exclude additional receipts due to merger of retirement systems.

<sup>(3)</sup> For PERSI employers, the ADC, formerly known as the Annual Required Contribution (ARC), is equal to the normal cost rate plus a 25-year amortization of any Unfunded Actuarial Accrued Liability or minus a 25-year amortization of any Funding Reserve amount. The ADC determined as of the valuation date is applicable for employer fiscal years commencing July 1 of the calendar year following the valuation date. For Optional Retirement Plan (ORP) employers, the ADC is equal to 1.49% of salaries of university members in the ORP until 2025 and 3.83% of salaries of junior college members in the ORP until 2011.

<sup>(4)</sup> The ADC for the PERSI fiscal year ending June 30, 2016 is based on 10.11% of covered payroll as computed in the 2014 valuation. For valuations prior to 2012, the ADC rate determined as of the valuation date was applicable for employer fiscal years commencing October 1 of the calendar year following the valuation date

EXHIBIT 8: SCHEDULE OF CONTRIBUTIONS FROM THE EMPLOYER EXPRESSED AS A PERCENTAGE OF PAYROLL

Actual PERSI Employer Contribution % <sup>(1)</sup>	Actuarially Determined Contribution (ADC) % (2)	Percentage of ADC Contributed
10.44%	9.448%	110%
10.44	9.588	109
10.44	8.483	123
10.44	9.523	109
10.44	12.243	85
10.44	12.375	84
10.44	10.813	97
11.36	11.880	96
11.36	11.570	98
11.38	10.110 <sup>(3)</sup>	113
	Employer Contribution % (1) 10.44% 10.44 10.44 10.44 10.44 10.44 11.36 11.36	Actual PERSI Employer Contribution % (1)Determined Contribution (ADC) % (2)10.44%9.448%10.449.58810.448.48310.449.52310.4412.24310.4412.37510.4410.81311.3611.88011.3611.570

- (1) The actual PERSI employer contributions are expressed as a percentage of payroll. Employer contributions are made as a percentage of actual payroll in accordance with statute and the Board's Funding Policy. Thus, the actual employer contributions set by both statute and the Board's Funding Policy may differ from the computed Actuarially Determined Contribution (ADC), employer contribution rate for GASB disclosure purposes. Dollar amounts shown exclude additional receipts due to merger of retirement systems.
- (2) For PERSI employers, the ADC, formerly known as the Annual Required Contribution (ARC), is equal to the normal cost rate plus a 25-year amortization of any Unfunded Actuarial Accrued Liability or minus a 25-year amortization of any Funding Reserve amount. The ADC determined as of the valuation date is applicable for employer fiscal years commencing July 1 of the calendar year following the valuation date. For Optional Retirement Plan (ORP) employers, the ADC is equal to 1.49% of salaries of university members in the ORP until 2025 and 3.83% of salaries of junior college members in the ORP until 2011.
- (3) The ADC for the PERSI fiscal year ending June 30, 2016 is based on 10.11% of covered payroll as computed in the 2014 valuation. For valuations prior to 2012, the ADC rate determined as of the valuation date was applicable for employer fiscal years commencing October 1 of the calendar year following the valuation date.



#### **EXHIBIT 9: PROVISIONS OF GOVERNING LAW**



All actuarial calculations are based on our understanding of the statutes governing the Public Employee Retirement System of Idaho, as contained in Sections 59-1301 through 59-1399, inclusive, of the Idaho Code, with amendments effective through July 1, 2016. The benefit and contribution provisions of this law are summarized briefly below, along with corresponding references to the Idaho Code. This summary does not attempt to cover all the detailed provisions of the law. Only those benefits in effect through July 1, 2016 are considered in this valuation. The items in parentheses are the provisions applicable to firefighters and police officers.

#### **Effective Date**

The effective date of the Retirement System was July 1, 1965.

## Member Contribution Rate

The member contribution rate effective July 1, 2016 is 6.79% (8.36%) of salary. As described earlier, there are currently no scheduled rate increases.

The member contribution rate is fixed at 60% (72%) of the employer contribution rate. For firefighters and police officers, the 72% adjustment is applied after reducing the employer rate by 0.10% for the 2003 addition of a \$100,000 death benefit for fire and police members who die in the line of duty. After the 72% is applied, the resulting rate is increased by 0.04% for the lump sum duty disability benefit. Member contributions have been "picked up" on a pre-tax basis by the employer since June 30, 1983 (Sections 59-1331 and 59-1332).

# Employer Contribution Rate

The employer contribution rate is set by the Retirement Board (Section 59-1322). As described in our July 1, 2015 Actuarial Valuation, there are no longer any future scheduled rate increases. The current rates are reflected in this report.

## Service Retirement Allowance

#### **Eligibility**

Age 65 (60) with five years of service including six months of membership service (Section 59-1341).

## **Amount of Allowance**

For each year of credited service, the annual service retirement allowance is 2.0% (2.3%) of the highest 42-month average salary (Section 59-1342).

#### Minimum Benefit

\$60 (\$72) annual allowance for each year of service. The dollar amounts increase after 1974 according to the rate of cost of living increases in retirement allowances (Section 59-1342).

#### Maximum Benefit

In no case may a member's regular retirement benefit exceed the highest three-year average salary of the member (Section 59-1342).

#### Normal Form

Straight life retirement allowance plus any death benefit (Section 59-1351).

#### **Optional Form**

Actuarial equivalent of the normal form under the options available, according to the mortality and interest basis adopted by the Board (Section 59-1351).

## Early Retirement Allowance

#### **Eligibility**

Age 55 (50) with five years of service, including six months of membership service (contributing members only) (Section 59-1345).

#### Amount of Allowance

Full accrued service retirement allowance if age plus service equals 90 (80); otherwise, the accrued service retirement allowance, reduced by 3% for each of the first five years by which the early retirement date precedes the date the member would be eligible to receive the full accrued benefit, and by 5.75% for each additional year (Section 59-1346).

# **Vested Retirement Allowance**

#### Eliaibility

Former contributing members with five years of membership service are entitled to receive benefits after attaining age 55 (50) (Section 59-1345).

#### Amount of Allowance

Same as early retirement allowance (Section 59-1345).

## Disability Retirement Allowance

#### **Eligibility**

Five years of membership service. For a police officer or a firefighter hired after July 1, 1993, who is disabled from an occupational cause, there is no service requirement (Section 59-1352).

#### Amount of Allowance

Projected service retirement allowance based on accrued service plus service projected to age 65 (60) (latter limited to excess of 30 years over accrued service) less any amount payable under workers' compensation law (Section 59-1353).

#### **Normal Form**

Temporary annuity to age 65 (60) plus any death benefit. Service retirement allowance becomes payable at age 65 (60) (Section 59-1354).

### Safety Member Lump Sum Duty Disability Benefit

Fire and Police members who are disabled in the line of duty are eligible for a \$100,000 lump sum benefit, in addition to the annuity benefits discussed above (Section 59-1352A).

#### **Death Benefits**

#### After Retirement

Under the normal form of the retirement allowance, the excess, if any, of the member's accumulated contributions with interest at retirement over all payments received. Otherwise, payable according to the option elected (Section 59-1361).

#### Before Retirement

- A. An automatic joint and survivor option applied to the actuarial equivalent of the member's accrued service retirement allowance is paid to the surviving spouse of a member with at least five years of service who dies while:
  - i. contributing;
  - ii. not contributing, but eligible for benefits; or
  - iii. retired for disability,

or

B. If a member with at least five years of service has no spouse, a lump sum payment is made equal to twice the accumulated contributions with interest (Section 59-1361).

or

C. If a member with at least five years of service has no spouse, a lump sum payment is made equal to twice the accumulated contributions with interest (Section 59-1361).

Fire and police members are entitled to an additional \$100,000 payment if death occurs in the line of duty. (Section 59-1361 A).

#### **Withdrawal Benefits**

Accumulated contributions with interest (Section 59-1358). The interest rate is determined by the Board (Section 59-1301(26)).

## Postretirement Increases

Postretirement benefit increases are based on changes in the Consumer Price Index. The measurement period for changes in the CPI-U is August to August. The COLA changes are implemented effective on the March 1 following the measurement period.

If the CPI-U increases by at least 1%, the COLA is at least 1%. If the CPI-U increases by more than 1%, an additional postretirement increase of up to 5% each year (but not more than the increase in the CPI-U) may be authorized by the Board, subject to the approval of the Legislature, if it finds that the System's assets are no less in value than its actuarial liabilities, including those created by the additional increase.

If the CPI-U increases by less than 1% or decreases, the COLA is automatic, based on the change in the CPI. If a negative COLA is applicable, the negative COLA cannot decrease benefits by more than 6%. Additionally, a negative COLA cannot decrease a member's benefit below the amount of the benefit at the initial benefit date.

If a COLA is implemented that is less than the increase in the CPI-U, members' benefits will not retain their full inflation adjusted purchasing power. In such cases, the Board may implement a Restoration of Purchasing Power (ROPP) COLA at a later date to bring those members closer to 100% of inflation adjusted purchasing power. As with a discretionary COLA, a ROPP is subject to approval of the Legislature and requires that the System's assets are no less in value than its actuarial liabilities, including those created by the additional increase. (Section 59-1355).

**Gain Sharing** 

Beginning in 2000, under Section 59-1309, <u>Idaho Code</u>, the Board may allocate all or a portion of "extraordinary gains" to active and retired members and employers as Gain Sharing.

Extraordinary gains are defined as the excess, if any, at the close of the fiscal year of the Assets over Actuarial Accrued Liabilities plus an amount necessary to absorb a one standard deviation market event without increasing contribution rates, as determined by the Board. Under the Board's current investment policy, assets in excess of a 113% funded ratio are considered extraordinary gains. The Board has the authority to rescind the Gain Sharing up to the date of distribution.





950 W. Bannock Street Suite 510 Boise, ID 83702 Tel +1 208 342 3485 Fax +1 208 342 5667 www.milliman.com

October 25, 2016

Retirement Board Public Employee Retirement System of Idaho State of Idaho P.O. Box 83720 Boise, ID 83720

#### Members of the Board:

Milliman has performed annual actuarial valuations of the Idaho Firefighters' Retirement Fund (FRF) from 1981 through 1988 and biennial valuations from July 1, 1990 to July 1, 2000. Starting with the July 1, 2001 valuation, actuarial valuations occurred annually through the July 1, 2007 valuation. From July 1, 2007 through July 1, 2013 the valuations were again biennial. Beginning with the July 1, 2014 valuation they have been performed annually once again. The most recent actuarial valuation was for July 1, 2016; the next is scheduled for July 1, 2017.

#### **Contribution Rates**

FRF covers a closed group of firefighters who were hired before October 1, 1980 and who receive benefits in excess of those provided under the Public Employee Retirement System of Idaho (PERSI). The cost of these excess benefits is paid by member contributions, employer contributions, and receipts from a fire insurance premium tax. Employer contributions comprise two elements: 8.65% of the salaries of covered members and an additional rate applied to the salaries of all firefighters of the employer. The additional rate is designed to meet the costs of the Fund not covered by other resources. Idaho Code Section 59-1394 requires the cost of the excess benefits to be retired by the schedule of contributions over a given period of time not to exceed 50 years.

On September 16, 2014 the PERSI Board moved to reduce the Additional Employer Contribution Rate from the current 17.24% to 5.00%. In accordance with this decision, the additional employer contribution rate for excess benefits (shown in Exhibit 8) was reduced to a rate of 5.00% of payroll, effective January 1, 2015.

FRF benefits were offset by PERSI benefits effective October 1, 1980. Effective July 1, 1990, all members hired after June 30, 1978 are to receive the same FRF benefits as members hired earlier.

Effective October 1, 1994, the PERSI benefits and contributions were increased. The FRF additional contribution rate to fund the excess benefits was decreased to 15.40% and the total employer contributions for FRF members remained fixed at 35.90% for Class A & B firefighters and 27.25% for Class D firefighters.

The Retirement Board lowered the PERSI contribution rates starting October 31, 1997 and made the reduction permanent as of April 25, 2000. The FRF excess contribution rate was increased to 17.24% since the total employer contributions for FRF members remained fixed at the 35.90%/ 27.25% rates. The Retirement Board raised the PERSI contribution rates, with the first increase effective July 1, 2004, and additional increases effective July 1, 2005 and July 1, 2006 an additional 0.1% contribution was added to provide for a \$100,000 death benefit for duty related deaths. The FRF excess contribution rate was maintained at 17.24%. The July 1, 2004 rate increase took effect as scheduled, but the other two rate increases were delayed by the Board to July 1, 2006 and July 1, 2007.

After the July 1, 2006 PERSI and FRF valuation reports were completed, the PERSI Board delayed the effective date of the scheduled contribution rate increases to July 1, 2008 and July 1, 2009. In October 2007, the Board cancelled the remaining scheduled contribution rate increases.

After the July 1, 2009 PERSI and FRF valuation reports were completed, the PERSI Board approved three new contribution rate increases scheduled for July 1, 2011, July 1, 2012, and July 1, 2013. These were adopted in December 2009 due to a significant drop in funded status because of investment losses in the year ending June 30, 2009,

Due to the 12.01% investment return in the year ending June 30, 2010, in December 2010, the PERSI Board delayed the scheduled contribution rate increases for July 1, 2011, July 1, 2012, and July 1, 2013, to July 1, 2012, July 1, 2013, and July 1, 2014, respectively.

Due to the 20.25% investment return in the year ending June 30, 2011, in December 2011, the Board delayed the scheduled contribution rate increases for July 1, 2012, July 1, 2013, and July 1, 2014, to July 1, 2013, July 1, 2014, and July 1, 2015, respectively.

On July 1, 2013, the first of three scheduled contribution rate increases went into effect. This raised the member contribution for Class D Firefighters from 7.69% to 8.36%. It also increased the PERSI Rate employer contribution from 10.73% to 11.66% for all firefighter groups.

In December 2013, the Board delayed the scheduled contribution rate increases for July 1, 2014 and July 1, 2015, to July 1, 2015 and July 1, 2016, respectively

In September 2014 the scheduled contribution rate increases scheduled for July 1, 2015 and July 1, 2016 were cancelled.

On January 1, 2015, the additional employer contribution rate was decreased from 17.24% to 5.00%.

## **Funding Status**

Based on the July 1, 2016 actuarial valuation, there is currently no Unfunded Actuarial Accrued Liability (UAAL) to amortize. This is consistent with the results from the July 1, 2015 valuation. The Fund's original funding goal is to amortize the liabilities by June 30, 2018 (40 years from July 1, 1978). The current amortization period of zero is less than the statutory maximum of 50 years.

The UAAL was increased by \$3.9 million due to an asset loss partially recognized as of July 1, 2016. Specifically, the Fund's assets earned an annual average net return after expenses of 1.43% for the 2016 plan year which was less than the actuarial assumption of 7.00%. The UAAL was reduced by \$7.8 million due to the February 1, 2016 FRF COLA being 1.73%, which was less than the actuarial assumption of 3.75%.

All experience gains and losses (including the asset loss) over the one-year period since the prior valuation resulted in the UAAL being decreased by \$4.3 million. The UAAL was also decreased by \$5.9 million because actual contributions plus assumed investment returns were more than the normal cost and the interest on the UAAL.

The funding status increased from a 119.4% funding ratio on July 1, 2015, to 123.3% on June 30, 2016. The funding ratio is the ratio of the actuarial value of the assets over the value of the actuarial accrued liability.

### Comparison to GASB Statement No. 67 Liabilities

The long-term expected rate of return on investments is 7.50%, including 0.40% for expected investment expenses and 0.10% for expected administrative expenses. For purposes of determining the Fund's funding status and UAAL, we use a discount rate that is net of all expenses (7.00%). The figures shown in this report have been calculated using this discount rate.

This is in contrast to the discount rate used to determine the Total Pension Liability (TPL) and Net Pension Liability (NPL) for purposes of GASB reporting. According to GASB Statement 67, the discount rate used to calculate TPL and NPL must be net of investment expenses but not administrative expenses. Therefore, TPL and NPL have been determined using a discount rate of 7.10%.

For the July 1, 2016 valuation, 3-year smoothing is used to calculate the actuarial value of plan assets. This is in contrast to the Fiduciary Net Position (FNP) used for purposes of GASB reporting. According to GASB Statement 67, the FNP must be based on the plan's market value of assets at the valuation date. Therefore, FNP has been determined without any asset smoothing.

Results and further details on these items can be found in our GASB 67 Report.

#### **Assumptions**

Our July 1, 2016 actuarial valuation report presented summaries of the actuarial assumptions and methods used in the valuation. The FRF assumptions generally reflect the assumptions used for the PERSI Fire and Police members, but are modified to reflect the characteristics expected of the closed group of FRF members.

The mortality assumptions for the plan were changed on July 1, 2014, in conjunction with changes to the assumptions for the PERSI Base Plan, as described in Appendix A of the July 1, 2014 valuation. The next major PERSI experience study, to be completed in 2018, will study mortality and economic assumptions and will cover the period July 1, 2013 through June 30, 2017.

#### **Certification Statement**

In preparing this report, we relied, without audit, on information (some oral and some in writing) supplied by the PERSI staff. This information includes, but is not limited to; benefit descriptions, employee data, and financial information. In our examination of such data, we have found them to be reasonably consistent and comparable with data used for other purposes. Since the valuation results are dependent on the integrity of the data supplied, the results can be expected to differ if the underlying data is incomplete or missing or if our assumptions regarding incomplete data are incorrect. It should be noted that if any data or other information is inaccurate or incomplete, our calculations may need to be revised.

All costs, liabilities rates of interest, and other factors have been determined on the basis of actuarial assumptions and methods which are individually reasonable (taking into account the experience of the Fund and reasonable expectations) and which in combination, offer our best estimate of anticipated experience affecting the Fund. Further, in our opinion, each actuarial assumption used is reasonably related to the experience of the System and to reasonable expectations which, in combination, represent our best estimate of anticipated experience under the System. We believe that all of these assumptions and methods meet the parameters set by Actuarial Standards of Practice (ASOPs).

Future actuarial measurements may differ significantly from the current measurements presented in this report due to such factors as the following: plan experience differing from that anticipated by the economic or demographic assumptions; changes in economic or demographic assumptions; increases or decreases expected as part of the natural operation of the methodology used for these measurements (such as the end of an amortization period or additional cost or contribution requirements based on the plan's funded status); and changes in plan provisions or applicable law. Due to the limited scope of our assignment, we did not perform an analysis of the potential range of future measurements.

Actuarial computations presented in this report are for purposes of determining the recommended funding amounts for the Fund. Actuarial computations under GASB Statements No. 67 and 68 are for purposes of fulfilling financial accounting requirements. The computations prepared for these two purposes may differ as disclosed in our report. The calculations in the enclosed exhibits have been made on a basis consistent with our understanding of the Fund's funding requirements and goals. Determinations for purposes other than meeting these requirements may be significantly different from the results contained in this report. Accordingly, additional determinations may be needed for other purposes.

Milliman's work is prepared solely for the internal business use of the Fund. To the extent that Milliman's work is not subject to disclosure under applicable public records laws, Milliman's work may not be provided to third parties without Milliman's prior written consent. Milliman does not intend to benefit or create a legal duty to any third party recipient of its work product. Milliman's consent to release its work product to any third party may be conditioned on the third party signing a Release, subject to the following exception(s):

- (a) The Fund may provide a copy of Milliman's work, in its entirety, to the Fund's professional service advisors who are subject to a duty of confidentiality and who agree to not use Milliman's work for any purpose other than to benefit the Fund.
- (b) The Fund may provide a copy of Milliman's work, in its entirety, to other governmental entities, as required by law.

No third party recipient of Milliman's work product should rely upon Milliman's work product. Such recipients should engage qualified professionals for advice appropriate to their own specific needs. The consultants who worked on this assignment are pension actuaries. Milliman's advice is not intended to be a substitute for qualified legal or accounting counsel.

The signing actuaries are independent of the plan sponsor. We are not aware of any relationship that would impair the objectivity of our work.

On the basis of the foregoing, we hereby certify that, to the best of our knowledge and belief, this letter is complete and accurate and has been prepared in accordance with generally recognized and accepted actuarial principles and practices. We are members of the American Academy of Actuaries and Fellows of the Society of Actuaries and meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion contained herein.



The enclosed Exhibits 1 through 9 provide further related information. Milliman is completely responsible for these exhibits. Specifically, they are:

Exhibit 1	Summary of Actuarial Assumptions and Methods
Exhibit 2	Schedule of Active Member Valuation Data
Exhibit 3	Schedule of Retiree and Beneficiary Valuation Data
Exhibit 4	Schedule of Funding Progress
Exhibit 5	Solvency Test
Exhibit 6	Analysis of Actuarial Gains or Losses
Exhibit 7	Schedule of Contributions from the Employer and All Other Contributing Entities
Exhibit 8	Contribution Rates as a Percent of Pay
Exhibit 9	Provisions of Governing Law

Jeffrey D. Bradley, F.S.A., M.A.A.A.

Principal and Consulting Actuary

Respectfully submitted,

Mark C. Olleman, F.S.A., M.A.A.A. Principal and Consulting Actuary

Mark C Olleman

MCO/JDB/mji



# EXHIBIT 1: SUMMARY OF ACTUARIAL ASSUMPTIONS AND METHODS EFFECTIVE JULY 1, 2016

#### 1. Investment Return (Adopted July 1, 2012)

The annual rate of investment return on the assets of the Fund is assumed to be 7.50% (including 0.50% for expenses), compounded annually.

## 2. Actuarial Value of Assets (Adopted September 2014)

For the July 1, 2014 valuation all assets are valued at market as of the valuation date. Use of 3-year smoothing to calculate the actuarial value of plan assets is being implemented prospectively: the July 1, 2015 valuation used a 2-year smoothing; the July 1, 2016 valuation uses a 3-year smoothing.

#### 3. Actuarial Assumptions

The actuarial assumptions and methods were adopted by the PERSI Board based upon recommendations from the retained actuary. The actuarial assumptions are based on periodic studies of the PERSI total fund's actual experience.

## 4. Service Retirement, Disability Retirement, and Termination (Adopted July 1, 2016)

Both actively employed members of FRF are fully eligible for unreduced service retirement. They are assumed to retire at the valuation date. No future withdrawals or disabilities are anticipated.

#### 5. Mortality (Adopted July 1, 2014)

The mortality rates used for all members of the Fund, active and retired, are from the RP-2000 Combined Mortality Table for males with generational mortality adjustments with ages unadjusted. The mortality rates assumed for spouses are from the RP-2000 Combined Mortality Table for females with generational mortality adjustments; with ages set back one year. For disabled members, the mortality rates used in the valuation are from the RP-2000 Mortality Table for disabled males with generational mortality adjustments, set back one year. These tables are illustrated in Table A-2A of the July 1, 2016 valuation report.

The Generational mortality adjustments provide a margin for future mortality improvements. The adjustments are applied from the base year of the tables (2000) to the year in which the mortality assumption is applied. The adjustments are done using the standard RP-2000 projection scale (Scale AA). These tables are illustrated in Tables A-2A and A-2B of the July 1, 2016 valuation report.

#### 6. Future Salaries (Adopted July 1, 2012)

In general, the total annual rates at which salaries are assumed to increase include 3.75% per year for increases in the general wage level of membership. The general wage level increases are due to inflation and increases in productivity. Due to the closed group and the aging of the membership, the general wage assumption is assumed to adequately cover any additional increases due to promotions and longevity.

### 7. Replacement of Terminated Members

The Firefighters' Retirement Fund is a closed group. No new members are permitted. The total number of firefighters in PERSI (including those hired October 1, 1980 and later) is assumed to remain unchanged from year to year.

# 8. Postretirement Benefit Increases (Cost of Living Adjustments) (Adopted July 1, 2013)

FRF benefits are based on paid salary and are assumed to increase at the same rate as the average paid firefighter's salary, or 3.75% per year. For members whose FRF benefits are offset by their PERSI benefits, the PERSI benefits are assumed to have post-retirement benefit increases of 1.00% per year. The assumptions regarding PERSI future post-retirement benefit increases is part of the funding policy for the FRF.

#### 9. Probability of Marriage

It is assumed that there is an 85% probability that the member has an eligible spouse. The spouse's age is assumed to be three years younger than the member's.

#### 10. Fire Insurance Premiums (Adopted July 1, 2004)

The fire insurance premiums received for the plan year ending June 30, 2016, amounted to \$3,779,982 or approximately 5.56% of all firefighters' covered compensation during the same period. Future fire insurance premiums are expected to provide contributions as a decreasing percentage of compensation, due to the assumption that the firefighters' covered compensation (including Class D members) will increase at the rate of 3.75% per year, but future fire insurance premiums are assumed to increase at a rate of only 3.25% per year. The rate for the increase for covered compensation was adopted July 1, 2012. The rate for the increase of fire insurance premiums was adopted July 1, 2010.

#### 11. Actuarial Cost Method (Adopted July 1, 1998)

Costs are determined based on the entry age normal cost method. The actuarial present value of future benefits not provided by PERSI less the present value of future normal costs equals the actuarial accrued liability. The UAAL is equal to the actuarial accrued liability less the actuarial value of the assets. The UAAL is amortized as a level dollar amount over a fixed amortization period. The current amortization period is zero since the UAAL at July 1, 2016 is negative.

The Actuarially Determined Contribution (ADC) is then the total of the normal cost allocated to the current plan year plus the amortization payment on the UAAL. Prior to July 1, 2006, the UAAL was amortized over a closed 40-year period from July 1, 1996. This assumption was adopted July 1, 1998, but applied retroactively to the July 1, 1996 valuation.

## 12. Experience Studies

The last experience study was for the period July 1, 2011, through June 30, 2015, and reviewed economic assumptions as well as all demographic assumptions except mortality. Mortality assumptions and economic assumptions will be studied in 2018 for the period from July 1, 2013, through June 30, 2017. The FRF assumptions generally reflect the assumptions used for the PERSI Fire and Police members, but are modified to reflect the characteristics expected of the closed group of FRF members.

#### 13. Recent Changes

The results reflect the PERSI Restoration of Purchasing Power COLA of 0.80% which went into effect March 1, 2016.

Both actively employed members are assumed to retire at the valuation date. No future withdrawals or disabilities are anticipated.

## ◆ Actuarial Section ◆

The July 1, 2016 valuation uses a 3-year asset smoothing. The July 1, 2015 valuation used a 2-year asset smoothing. Prior years' actuarial values of assets were equal to market value of assets.

## **EXHIBIT 2: SCHEDULE OF ACTIVE MEMBER VALUATION DATA**

			Annual Salaries	
Valuation Date July 1	Number	Total <sup>(1)</sup>	Average	Annual Increase in Average
2004	42	\$ 2,840,572	\$ 67,633	2.8%
2005	20	1,526,466	76,323	12.8
2006	13	1,034,693	79,592	4.3
2007	10	791,125	79,113	(0.6)
2009	5	437,818	87,564	5.2
2011	4	368,842	92,211	2.6
2013	3	307,849	102,616	5.5
2014	2	198,646	99,323	(3.2)
2015	2	203,998	101,999	2.7
2016	2	207,697	103,849	1.8

<sup>(1)</sup> Annualized average salaries for covered members for the 12-month period commencing July 1 to June 30 of the previous calendar year.

EXHIBIT 3: SCHEDULE OF RETIREE AND BENEFICIARY VALUATION DATA (1)

		Number		COLA
Valuation Date July 1	Total	Added	Removed	Increases Granted Previous January 1
2004	582	21	15	2.56%
2005	599	25	8	4.33
2006	597	10	12	4.36
2007	590	5	12	2.42
2009	573	6	23	5.10
2011	566	14	21	3.30
2013	551	3	18	2.18
2014	545	3	9	2.48
2015	535	1	11	(0.34)
2016	524	3	14	1.73

- 7	۱n	nı.	ıal	Βe	<u>a</u> n	ef	i	t:
•	<b>\1</b> 1	110	ıuı	$\mathbf{D}$	J   1	C	•	

Valuation Date					Annual Increases in
July 1	Total (2)	Added (3)	Removed	Average	Average
2004	\$20,095,076	\$1,148,461	\$383,287	\$34,528	2.9%
2005	21,699,127	1,833,685	229,634	36,226	4.9
2006	22,636,930	1,320,848	383,045	37,918	4.7
2007	22,992,269	754,703	399,364	38,970	2.8
2009	24,598,935	2,442,928	836,262	42,930	5.0
2011	25,998,263	2,147,165	747,837	45,933	3.4
2013	26,499,035	1,255,415	754,643	48,093	2.3
2014	26,856,909	784,008	426,134	49,279	2.5
2015	26,319,030	(33,958)	503,921	49,194	(0.2)
2016	26,285,792	576,922	610,160	50,164	2.0

<sup>(1)</sup> Information regarding the number of retirees and beneficiaries added to, and removed from, the rolls was not used in the actuarial valuations.

<sup>(2)</sup> Combined annual benefits from FRF and PERSI. The FRF benefits comprised \$19,281,634 of the 2016 total.

<sup>(3)</sup> Includes postretirement increases (or decreases, if applicable) for all retirees and beneficiaries.

# EXHIBIT 4: SCHEDULE OF FUNDING PROGRESS (All Dollar Amounts in Millions)

Actuarial Valuation Date July 1	Actuarial Value of Assets (1)	Actuarial Accrued Liabilities (AAL) (2)	Unfunded Actuarial Accrued Liabilities (UAAL) (3)	Funded Ratio	Covered Payroll (4)	UAAL as a Percentage of Covered Payroll
2004	\$210.4	\$302.6	\$92.2	69.5%	\$39.8	231.7%
2005	227.2	309.1	81.9	73.5	42.2	194.1
2006	248.8	312.3	63.5	79.7	45.0	141.1
2007	291.5	314.8	23.3	92.6	47.6	48.9
2009	225.3	325.3	100.0	69.3	55.7	179.5
2011	290.4	311.5	21.1	93.2	59.3	35.6
2013	307.0	321.5	14.5	95.5	63.0	23.0
2014	352.2	315.6	(36.6)	111.6	63.0	(58.1)
2015	360.4	301.9	(58.5)	119.4	63.8	(91.7)
2016	363.4	294.7	(68.7)	123.3	68.0	(101.0)

<sup>(1)</sup> For the July 1, 2014 valuation and all preceding valuations, assets are valued at market as of the valuation date. Use of 3-year smoothing to calculate the actuarial value of plan assets has been implemented prospectively: the July 1, 2015 valuation used a 2-year smoothing; the July 1, 2016 valuation uses a 3-year smoothing.

<sup>(2)</sup> Actuarial present value of future excess benefits less actuarial present value of excess statutory contributions over amounts required by PERSI, for years prior to 1996. For years after 1996, the excess of the actuarial present value of future excess benefits less the present value of future normal cost contributions under the entry age cost method.

<sup>(3)</sup> Actuarial accrued liabilities less actuarial value of assets.

<sup>(4)</sup> Covered Payroll includes compensation paid to all active firefighters for whom contributions were made to FRF. Covered Payroll differs from the Active Member Valuation Payroll shown in Exhibit 2, which is an annualized compensation of only those members hired prior to October 1, 1980, who were active on the actuarial valuation date. For years prior to 1996, Covered Payroll is estimated. See footnote to Exhibit 7.

EXHIBIT 5: SOLVENCY TEST
(All Dollar Amounts in Millions)

		Actuarial Liabilities (1) for					
Actuarial Valuation	Actuarial	(A)	(B)	(C) Active Members (Employer	Portion of Actuarial Liabilities Covered by Assets		
Date July 1	Value of Assets (2)	Active Member Contributions	Retirees and Beneficiaries	Financed Portion)	(A)	(B)	(C)
2004 2005	\$210.4 227.2	\$0.1 0.1	\$287.7 301.6	\$15.2 7.4	100.0% 100.0	73.1% 75.3	0.0% 0.0
2005 2006 2007	248.8 291.5	0.0	308.1 312.0	4.2 2.8	100.0 100.0 100.0	80.8 93.4	0.0
2007	225.3	0.0 0.0	324.0	1.3	100.0	69.5	0.0
2011 2013 2014 2015	290.4 307.0 352.2 360.4	0.0 0.0 0.0 0.0	310.7 320.4 314.9 301.3	0.8 1.1 0.7 0.6	100.0 100.0 100.0 100.0	93.5 95.8 100.0 100.0	0.0 0.0 100.0 100.0
2016	363.4	0.0	294.0	0.7	100.0	100.0	100.0

<sup>(1)</sup> Computed based on funding policy methods and assumptions.

<sup>(2)</sup> For the July 1, 2014 valuation and all preceding valuations, assets are valued at market as of the valuation date. Use of 3-year smoothing to calculate the actuarial value of plan assets has been implemented prospectively: the July 1, 2015 valuation used a 2-year smoothing; the July 1, 2016 valuation uses a 3-year smoothing.



# EXHIBIT 6: ANALYSIS OF ACTUARIAL GAINS OR LOSSES (All Dollar Amounts in Millions)

	Gain (Loss) for Period		
	2013-2014	2014-2015	2015-2016
Investment Income Investment income was greater (less) than expected, net of asset smoothing, if applicable.	\$ 29.7	\$ (7.6)	\$ (3.9)
Pay Increases Pay increases and COLAs were less (greater) than expected.	4.8	15.3	7.8
Other Miscellaneous gains (and losses) resulting from other causes including retirees dying younger (living longer) than expected.	0.8	0.5	0.4
Total Gain (Loss) During the Period From Actuarial Experience	\$ 35.3	\$ 8.2	\$ 4.3
Contribution Income Actual contributions plus assumed investment returns were greater (less) than the normal cost and interest on the UAAL.	13.7	14.3	5.9
Non-Recurring Items Effect of automatic 0.20% PERSI COLA Changes in actuarial assumptions and benefits caused a gain (loss). PERSI Restoration of Purchasing Power and Discretionary COLA	NA NA 2.1	(0.6) NA NA	NA NA NA
Composite Gain (Loss) During the Period	\$ 51.1	\$ 21.9	\$ 10.2

Note: Effects related to losses are shown in parentheses. Numerical results are expressed as a decrease (increase) in the actuarial accrued liability.

# Idaho Firefighters' Retirement Fund

# EXHIBIT 7: SCHEDULE OF CONTRIBUTIONS FROM THE EMPLOYER AND ALL OTHER CONTRIBUTING ENTITIES (Actual Dollar Amounts)

Fiscal Year Ending	Covered Employee Payroll (1)	Statutory Employer Contributions (2)	Additional Employer Contributions (2)	Insurance Premium Payment from the State	Total Employer Contributions	Actuarially Determined Contribution (ADC) (3)	Percentage of ADC Contributed
2007	\$ 47,638,976	\$ 78,450	\$ 8,212,960	\$ 3,827,763	\$12,119,173	\$5,033,291	240.8%
2008	52,097,173	54,297	8,981,553	3,834,553	12,870,403	1,826,307	704.7
2009	55,747,655	41,362	9,610,896	3,563,731	13,215,989	1,826,307	723.6
2010	58,146,207	36,937	10,024,405	3,480,989	13,542,331	7,959,238	170.1
2011	59,337,447	31,616	10,229,773	3,052,326	13,313,715	7,959,238	167.3
2012	59,883,692	25,532	10,323,948	3,136,829	13,486,309	1,666,127	809.4
2013	62,969,139	25,617	10,855,876	3,345,821	14,227,314	1,666,127	853.9
2014	63,017,405	25,032	10,864,197	3,311,094	14,200,323	1,119,619	1,268.3
2015	63,780,545	17,259	7,720,025	3,568,189	11,305,473	0	NA
2016	68,017,833	17,723	3,400,892	3,779,982	7,198,597	0	NA

<sup>(1)</sup> Computed as the dollar amount of the actual employer contribution made as a percentage of payroll divided by the contribution rate, expressed as a percentage of payroll.

<sup>(2)</sup> Employer contributions are made as a percentage of actual payroll rather than as a dollar amount. The Statutory Employer FRF contributions in excess of PERSI required contributions are payable only on Class A & B active member payroll. The Additional Employer FRF contributions are payable on Class A & B and Class D active member payrolls.

<sup>(3)</sup> Starting July 1, 1996, the ADC, formerly known as the Annual Required Contribution (ARC), is computed as a dollar amount based on the entry age cost method and future payroll contributions from Class A & B members only. The ADC is computed for GASB reporting purposes only. The actual employer contributions as a percentage of payroll varied from those determined by the actuarial valuation based on the funding policy as shown in Table D-2 of the actuarial valuation report. Thus, as long as the actual contributions are made as a percentage of payroll under the current funding policy methods and assumptions, as required by the most recent actuarial valuation, the actual dollar amount of the employer contributions will differ from the dollar amount of the ADC.

# Idaho Firefighters' Retirement Fund

# **EXHIBIT 8: CONTRIBUTION RATES AS A PERCENT OF PAY**

	State Contributions	Employer Contributions				Total Employer Contributions For Members	
Year (1)	Fire Insurance Premium Tax <sup>(2)</sup>	PERSI Rate	Statutory FRF Rate	Additional Rate	Social Security	Hired Before 10/1/80 <sup>(3)</sup>	Hired After 9/30/80 <sup>(4)</sup>
Effective							
Date:	July 1	October 1	January 1	October 1	January 1	October 1	October 1
2004	6.60%	10.73%	8.65%	17.24%	7.65%	36.62%	35.62%
2005	6.70	10.73	8.65	17.24	7.65	36.62	35.62
2006	6.60	10.73	8.65	17.24	7.65	36.62	35.62
2007	6.90	10.73	8.65	17.24	7.65	36.62	35.62
2009	5.20	10.73	8.65	17.24	7.65	36.62	35.62
2011	5.10	10.73	8.65	17.24	7.65	36.62	35.62
2013	5.30	11.66	8.65	17.24	7.65	37.55	36.55
2014	5.20	11.66	8.65	17.24 <sup>(5)</sup>	7.65	37.55	36.55
2015	5.60	11.66	8.65	5.00	7.65	25.31	24.31
2016	5.60	11.66	8.65	5.00	7.65	25.31	24.31

<sup>(1)</sup> Rates become effective on dates shown in given year. Biennial valuations were performed 1988-2000.

<sup>(2)</sup> Rate expressed as a percentage of the value of future fire insurance premium taxes over the value of future covered compensation.

<sup>(3)</sup> PERSI rate plus Statutory FRF rate plus additional rate.

<sup>(4)</sup> PERSI rate plus additional rate plus Social Security.

<sup>(5)</sup> Effective January 1, 2015, the Additional Employer Contribution Rate decreased from 17.24% to 5.00%.



## Idaho Firefighters' Retirement Fund

#### **EXHIBIT 9: PROVISIONS OF GOVERNING LAW**

This exhibit outlines our understanding of the laws governing the Idaho Firefighters' Retirement Fund (FRF), compared with the provisions that apply to firefighters of the Public Employee Retirement System of Idaho (PERSI), as contained in Sections 59-1301 through 59-1399 for PERSI and Sections 72-1401 through 72-1472 for FRF, inclusive of the Idaho Code through July 1, 2016. Each currently active firefighter hired before October 1, 1980, is entitled to receive the larger of (a) a benefit based on the FRF provisions, considering all of his service as a firefighter, and (b) a PERSI benefit, based on membership service beginning October 1, 1980, plus prior service rendered before July 1, 1965. Firemen hired October 1, 1980 and later (Class D members) are not entitled to FRF benefits.

In 1990, the law was changed to provide benefits to all members of FRF equally. Prior to the change, members hired after July 1, 1978, and before October 1, 1980, (Class C members) received a lower level of benefits. Class A members are members hired prior to July 1, 1976, who chose Option 1, where contributions are calculated on the basis of statewide average paid firefighter's salary. Benefits are based on the statewide average salary in effect at the date of retirement. Class B members are all Option 2 members hired prior to July 1, 1978, where contributions are calculated on the basis of the individual's annual average salary, but benefits are based on actual pay.



# **Retirement Provisions Affecting Firefighters In Idaho**

# July 1, 2016

	Public Employee Retirement System	Firefighters' Retirement Fund
Member Contribution Rate	8.36% of salary.	11.45% of salary. <sup>(1)</sup>
Service Retirement Allowance		
Eligibility	Age 60 with five years of service, including six months of membership service.	20 years of service. (2)
Amount of Annual Allowance	2.30% of the highest 3.5-year average salary for each year of credited service.	40% of final five-year average salary <sup>(1)</sup> plus 5.00% of average salary for each year of service in excess of 20 years.
Maximum Benefit	100% highest three-year average salary.	65% of final five-year average salary. (1)
Minimum Benefit	For retirement during or prior to 1974, \$72 annual allowance for each year of service, increasing in subsequent years at the rate of cost-of-living increases in retirement allowances.	None.

(1) For firefighters employed prior to July 1, 1976, who chose Option 1, contributions are calculated on the basis of the statewide average paid firefighter's salary. Benefits are based on the statewide average salary in effect at the date of retirement.

For firefighters employed prior to July 1, 1976, who chose Option 2, contributions are based on the individual members' salaries for the prior year. Benefits are based on actual pay.



Non-Duty Disability Retirement Allowance	Public Employee Retirement System	Firefighters' Retirement Fund
Eligibility	Five years of membership service.	Five years of service. (2)
Amount of Annual Allowance	Projected service retirement allowance based on accrued service plus service projected to age 60 (projected service is limited to excess of 30 years over accrued service), less any amount payable under workers' compensation law.	2.00% of final five-year average salary <sup>(1)</sup> times years of service <sup>2)</sup> , or same as service retirement benefit if eligible.
Normal Form	Temporary annuity to age 60 plus any death benefit.	Payable for firefighter's lifetime, with 100% of benefit continued to eligible surviving spouse or children.

# **Duty Disability Retirement Allowance**

Eligibility If hired after July 1, 1993, no service No age or service requirements. requirement, otherwise same as non-

duty disability retirement.

Amount of Annual Same as non-duty disability retirement. 65% of final five-year average salary.

Normal Form Same as non-duty disability retirement. Same as non-duty disability retirement.

Special Disability Benefit

Allowance

Eligibility Firefighters hired after October 1, 1980 None.

and prior to July 1, 1993, with less than

10 years of service.

Benefit Same as FRF disability benefit. None.

(1) For firefighters employed prior to July 1, 1976, who chose Option 1, contributions are calculated on the basis of the statewide average paid firefighter's salary. Benefits are based on the statewide average salary in effect at the date of retirement.

For firefighters employed prior to July 1, 1976, who chose Option 2, contributions are based on the individual members' salaries for the prior year. Benefits are based on actual pay.



Firefighters' Retirement Fund

Public Employee Retirement System

Death Benefits Before Retirement		
Eligibility	Five years of service for surviving spouse's benefit.	Non-duty death: Five years of service. (2) Duty death: No service requirement. Benefits are payable to surviving spouse or, if no eligible surviving spouse, to unmarried children under 18.
Amount of Benefit	1. Accumulated contribution with interest, or     2. The surviving spouse of a member with five years of service who dies while:     i. contributing;     ii. noncontributing, but eligible for benefits; or     iii. retired for disability     receives an automatic joint and survivor option applied to the actuarial equivalent of the member's accrued service retirement allowance.	100% of the benefit the firefighter would have received as a duty or non-duty disability allowance, depending on cause of his death.
Normal Form	Payable for member's lifetime, with death benefit determined by option selected at retirement.	Payable for firefighter's lifetime, with 100% of benefit continued to eligible surviving spouse or children.
Optional Form	Actuarial equivalent of the normal form under the options available according to the mortality and interest basis adopted by the Board.	None.
Death Benefits After Retirement		
Eligibility	Designated beneficiary or estate.	Surviving spouse or, if no eligible surviving spouse, unmarried children under 18.
Amount of Benefit	Under the normal form of the retirement allowance, the excess, if any, of the member's accumulated contributions with interest at retirement over all payments received. Otherwise payable according to the option elected.	100% of firefighter's retirement allowance.



	Public Employee Retirement System	Firefighters' Retirement Fund	
Early Retirement Allowance			
Eligibility	Age 50 with five years of service including six months of membership service (contributing members only).	None.	
Amount of Allowance	Full accrued service retirement allowance if age plus service equals 80; otherwise, the accrued service retirement allowance reduced by 3.00% for each of the first five years by which the early retirement date precedes the date the member would be eligible to receive his full accrued benefit, and by 5.75% for each additional year.	None.	
Vested Retirement Allowance			
Eligibility	Former contribution members with five years of membership service are entitled to receive benefits after attaining age 50.	Firefighters who terminate after five years of service (2) are entitled to receive benefits beginning at age 60.	
Amount of Allowance	Same as early retirement allowance.	2.00% of final five-year average salary times years of service <sup>(2)</sup> .	
Withdrawal Benefit	Accumulated contributions with interest.	Accumulated contributions with interest.	

Public Employee Retirement System

Firefighters' Retirement Fund

# Post-Retirement Increases

Amount of Adjustment

Increases are based on a cost-of-living factor reflecting the changes in the Consumer Price Index, subject to a maximum total increase or decrease of 6.00% in any year.

If the Consumer Price Index increases by at least 1% from August to August, a 1.00% annual postretirement increase is effective the following March. An additional postretirement increase of up to 5.00% each year may be authorized by the Board if it finds that the value of the System's assets are no less than its actuarial liabilities, including those created by the additional increase.

If the CPI-U increases by less than 1% or decreases, the COLA is automatically equal to the change in the CPI-U. A decrease cannot be more than 6%. Member benefits cannot decrease below the amount at the initial benefit date.

Benefits increase or decrease by the same percentage by which the average paid firefighter's salary increases or decreases. The change for the year is effective each February.





950 W. Bannock Street Suite 510 Boise, ID 83702 Tel +1 208 342 3485 Fax +1 208 342 5667 www.milliman.com

October 25, 2016

Retirement Board Public Employee Retirement System of Idaho State of Idaho P.O. Box 83720 Boise, ID 83720

#### Members of the Board:

Milliman has performed annual actuarial valuations of the Judges' Retirement Fund of the State of Idaho (JRF) beginning with the June 30, 2010 actuarial valuation. Until June 30, 2014, the JRF was an independent Fund. Beginning with the July 1, 2014 actuarial valuation, the Fund has been administered by the Public Employee Retirement System of Idaho (PERSI). It is anticipated that future actuarial valuations will be performed every year with the next valuation to be as of July 1, 2017.

### **Contribution Rates**

The financing objective of the Fund is to establish contribution rates that will tend to remain level as percentages of payroll. The current total contribution rate is 65.51%: 55.28% employer contribution rate and 10.23% employee contribution rate.

The July 1, 2015 valuation found that the contribution rates were insufficient to amortize the unfunded actuarial accrued liability within 25 years of the valuation date. Therefore, in October 2015, the Board approved a contribution rate increase to take effect on July 1, 2017 that will increase the total contribution rate to 74.10%. This increased contribution rate will, based on the July 1, 2016 valuation assumptions and valuation results, be sufficient to amortize the Unfunded Actuarial Accrued Liability (UAAL) over the required 25-year period ending July 1, 2041.

## **Funding Status**

Based on the July 1, 2016 actuarial valuation, the UAAL was increased by \$4.184 million due to an asset loss recognized as of July 1, 2016. Specifically, the Fund's assets earned a net return after accounting for all expenses of 1.27%, which is 5.73% below the actuarial assumption of 7.00%. All other experience gains and losses decreased the actuarial liability by \$1.669 million. Thus, the total experience loss for the year was \$2.515 million.

Also, the UAAL increased by \$0.883 million because actual contributions plus assumed investment returns were less than the normal cost and the interest on the UAAL.

The current contribution rates (including the Board approved increase effective July 1, 2017) are adequate to amortize the Normal Cost and UAAL balance over the required 25-year period.

The funding status decreased from a 78.20% funding ratio on July 1, 2015, to 75.33% on July 1, 2016. The funding ratio is the ratio of the actuarial value of the assets over the value of the actuarial accrued liability.

## Comparison to GASB Statement No. 67 Liabilities

The long-term expected rate of return on investments is 7.50%, including 0.40% for expected investment expenses and 0.10% for expected administrative expenses. For purposes of determining the Fund's funding status and UAAL, we use a discount rate that is net of all expenses (7.00%). The figures shown in this report have been calculated using this discount rate.

This is in contrast to the discount rate used to determine the Total Pension Liability (TPL) and Net Pension Liability (NPL) for purposes of GASB reporting. According to GASB Statement 67, the discount rate used to calculate TPL and NPL must be net of investment expenses but not administrative expenses. Therefore, TPL and NPL have been determined using a discount rate of 7.10%. Results and further details on these items can be found in our GASB 67 and 68 Report.

### **Assumptions**

Our July 1, 2016 actuarial valuation report presented summaries of the actuarial assumptions and methods used in the valuation. The last major experience study of the JRF assumptions covered the period of June 30, 2003 to June 30, 2008. Economic and mortality assumptions generally reflect the assumptions used for the PERSI valuation.

The last major PERSI experience study, completed in 2016, covered the period July 1, 2011 through June 30, 2015.

### **Certification Statement**

In preparing this letter, we relied, without audit, on information (some oral and some in writing) supplied by PERSI's staff. This information includes, but is not limited to, statutory provisions, member census data, and financial information. We found this information to be reasonably consistent and comparable with data used for other purposes. The valuation results depend on the integrity of this information. If any of this information is inaccurate or incomplete our results may be different and our calculations may need to be revised.

All costs, liabilities, rates of interest, and other factors for the System have been determined on the basis of actuarial assumptions and methods which are individually reasonable (taking into account the experience of the System and reasonable expectations); and which, in combination, offer our best estimate of anticipated experience affecting the System. Further, in our opinion, each actuarial assumption used is reasonably related to the experience of the System and to reasonable expectations which, in combination, represent our best estimate of anticipated experience under the System. We believe that all of these assumptions and methods meet the parameters set by Actuarial Standards of Practice (ASOPs).

Future actuarial measurements may differ significantly from the current measurements presented in this report due to such factors as the following: plan experience differing from that anticipated by the economic or demographic assumptions; changes in economic or demographic assumptions; increases or decreases expected as part of the natural operation of the methodology used for these measurements (such as the end of an amortization period or additional cost or contribution requirements based on the plan's funded status); and changes in plan provisions or applicable law. Due to the limited scope of our assignment, we did not perform an analysis of the potential range of future measurements. The Retirement Board has the final decision regarding the appropriateness of the assumptions and actuarial cost methods.

Actuarial computations presented in this report are for purposes of determining the recommended funding amounts for the System. Actuarial computations under GASB Statements No. 67 and 68 are for purposes of fulfilling financial accounting requirements. The computations prepared for these two purposes may differ as disclosed in our report. The calculations in the enclosed exhibits have been made on a basis consistent with our understanding of the System's funding requirements and goals. Determinations for purposes other than meeting these requirements may be significantly different from the results contained in this report. Accordingly, additional determinations may be needed for other purposes.

Milliman's work is prepared solely for the internal business use of the System. To the extent that Milliman's work is not subject to disclosure under applicable public records laws, Milliman's work may not be provided to third parties without Milliman's prior written consent. Milliman does not intend to benefit or create a legal duty to any third party recipient of its work product. Milliman's consent to release its work product to any third party may be conditioned on the third party signing a Release, subject to the following exception(s):

- (a) The System may provide a copy of Milliman's work, in its entirety, to the System's professional service advisors who are subject to a duty of confidentiality and who agree to not use Milliman's work for any purpose other than to benefit the System.
- (b) The System may provide a copy of Milliman's work, in its entirety, to other governmental entities, as required by law.

No third party recipient of Milliman's work product should rely upon Milliman's work product. Such recipients should engage qualified professionals for advice appropriate to their own specific needs.

The consultants who worked on this assignment are pension actuaries. Milliman's advice is not intended to be a substitute for qualified legal or accounting counsel.

The signing actuaries are independent of the plan sponsor. We are not aware of any relationship that would impair the objectivity of our work.

On the basis of the foregoing, we hereby certify that, to the best of our knowledge and belief, this letter is complete and accurate and has been prepared in accordance with generally recognized and accepted actuarial principles and practices. We are members of the American Academy of Actuaries and Fellows of the Society of Actuaries and meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion contained herein.

The enclosed Exhibits 1 through 9 provide further related information. Milliman is completely responsible for these exhibits. Specifically, they are:

Exhibit 1	Summary of Actuarial Assumptions and Methods
Exhibit 2	Schedule of Active Member Valuation Data
Exhibit 3	Schedule of Retiree and Beneficiary Valuation Data
Exhibit 4	Schedule of Funding Progress
Exhibit 5	Solvency Test
Exhibit 6	Analysis of Actuarial Gains or Losses
Exhibit 7	Schedule of Contributions from the Employer
Exhibit 8	Schedule of Contributions from the Employer Expressed as a
	Percentage of Covered Payroll
Exhibit 9	Provisions of Governing Law

Respectfully submitted,

Bret D. Linton, F.S.A., M.A.A.A. Principal and Consulting Actuary

Jeffrey D. Bradley, F.S.A., M.A.A.A. Principal and Consulting Actuary

Jeffy O. Rrully

BDL/JDB/trs



# EXHIBIT 1: SUMMARY OF ACTUARIAL ASSUMPTIONS AND METHODS EFFECTIVE JULY 1, 2016

## 1. Investment Return (Adopted July 1, 2014)

The annual rate of investment return on the assets of the Fund is assumed to be 7.50% (including 0.50% for expenses), compounded annually.

#### 2. Actuarial Value of Assets

All assets are valued at market as of the valuation date.

### 3. Actuarial Assumptions

The actuarial assumptions and methods were adopted by the PERSI Board based upon recommendations from the retained actuary. The actuarial assumptions are based on periodic studies of the PERSI total fund's actual experience.

#### 4. Service Retirement

Annual rates of retirement assumed to occur among persons eligible for a service retirement are illustrated in the following table:

	Rate of
Age	Retirement <sup>(1)</sup>
	_
55	4%
60	12
65	50
70	75
71	100

<sup>(1)</sup> Eligibility occurs after 20 years of service, attained age 55 with 15 years of service, attained age 60 with 10 years of service, or attained age 65 with four years of service.

### 5. Mortality (Adopted July 1, 2014)

# Contributing Members, Service and Disability Retirement Members, and Beneficiaries

Males RP-2000 Combined Table for Healthy Individuals for males,

set back one year.

Females RP-2000 Combined Table for Healthy Individuals for females,

set back one year.

All mortality tables are adjusted with generational mortality adjustments using projection scale AA as shown in Table A-4B of the July 1, 2016 valuation report. The projection scale is applied from the year 2000 to the year in which the mortality assumption is being applied.

## 6. Disability Retirement

Annual rates assumed for disability retirement are illustrated in the following table:

Age	Annual Rate
25	.032%
35	.119
45	.277
55	.870

### 7. Other Terminations of Employment

There are no other employment termination assumptions that are valued.

### 8. Future Salaries (Adopted July 1, 2014)

The rate of annual salary increase assumed for the purpose of the valuation is 3.75%.

## 9. Growth in Membership (Adopted July 1, 2014)

In general, the combined effects of stable active membership and salary levels are assumed to produce a 3.75% average annual expansion in the payroll of covered members.

## 10. Interest on Employee Contributions

The credited interest rate on employee contributions is assumed to be 6.50%.

# 11. Postretirement Benefit Increases (Cost of Living Adjustments) (Adopted July 1, 2014)

Any member who assumed office prior to July 1, 2012 is assumed to have a postretirement increase of 3.75% per year. However, for members who made an irrevocable election prior to August 1, 2012 to have their postretirement benefit increases based on Idaho Code Section 59-1355, a postretirement increase of 1.00% per year is assumed instead.

Any member who assumed office on or after July 1, 2012, is assumed to have a postretirement increase of 1.00% per year.

### 12. Probability of Marriage

The marriage assumption for all members is 100%. Males are assumed to be 2 years older than their spouses.

#### 13. Actuarial Cost Method

The actuarial valuation is prepared using the entry age actuarial cost method. Under the principles of this method, the actuarial present value of the projected benefits of each individual included in the valuation is allocated as a level percentage of the individual's projected compensation between entry age and assumed exit. The portion of this actuarial present value allocated to a valuation year is called the normal cost. The portion of this actuarial present value not provided for at a valuation date by the sum of (a) the actuarial value of the assets and (b) the actuarial present value of future normal costs is called the unfunded actuarial accrued liability (UAAL). The UAAL, if positive, is amortized as a level percentage of the projected salaries of present and future members of the Fund during various amortization periods. In effect, this means that UAAL amortization payments are assumed to grow at the same rate as the General Wage increase assumption (currently 3.75%).



The normal cost rates used in this valuation were calculated based on all current active members as of July 1, 2016 for each sex and type of employee in that valuation. The actuarial present values of projected benefits and of projected salaries for all active members were calculated. The ratio of the two is the aggregate normal cost rate.

### 14. Experience Studies

The last experience study was for the period July 1, 2003, through June 30, 2008, and reviewed economic and demographic assumptions. PERSI may wish to consider another experience study in the near future. Mortality assumptions were updated July 1, 2014, to reflect the findings in the most recent PERSI experience study. The mortality assumptions for PERSI General members are used for the JRF plan. The JRF economic assumptions generally reflect the assumptions used for the PERSI valuation.

## 15. Recent Changes

There have been no changes to the valuation assumptions since the prior valuation.

The results do reflect the October 2015 Board decision to increase total contribution rates to 74.10% effective July 1, 2017.

# **EXHIBIT 2: SCHEDULE OF ACTIVE MEMBER VALUATION DATA**

		Annual Salaries			
Valuation Date July 1	Number	Total (1)	Average	Annual Increase in Average	
2015 2016	52 53	\$ 6,543,000 6,886,500	\$ 125,827 129,934	NA 3.3%	

<sup>(1)</sup> Annualized average salaries for covered members for the 12-month period commencing July 1 to June 30 of the current valuation period.

# EXHIBIT 3: SCHEDULE OF RETIREE AND BENEFICIARY VALUATION DATA<sup>(1)</sup>

Valuation Data		Increase	COLA Increases Granted Previous Year		
Valuation Date  July 1	Total	Added	Removed	JRF	PERSI
2015 2016	92 94	8 2	2	0.0% 3.70% <sup>(2)</sup>	1.70% 0.20%
		An			
Valuation Date July 1	Total	Added <sup>(3)</sup>	Removed	Average	Annual Increases in Average
2015 2016	\$5,873,186 6,124,128	\$545,609 250,942	\$121,376 0	\$63,839 65,150	NA 2.1%

<sup>(1)</sup> Information regarding the number of retirees and beneficiaries added to, and removed from, the rolls was not used in the actuarial valuations.

<sup>(2)</sup> JRF COLA's are based on salary increase of position previously held by the retiree. Pay raises vary by position. The raises effective July 1, 2016 ranged from 0.00% to 3.70%.

<sup>(3)</sup> Includes postretirement increases for all retirees and beneficiaries.

# EXHIBIT 4: SCHEDULE OF FUNDING PROGRESS (All Dollar Amounts in Thousands)

Actuarial Valuation Date July 1	Actuarial Value of Assets	Actuarial Accrued Liabilities (AAL) (1)	Unfunded Actuarial Accrued Liabilities (UAAL) <sup>(2)</sup>	Funded Ratio	Covered Payroll (3)	UAAL as a Percentage of Covered Payroll
2015	\$76,468	\$97,780	\$21,312	78.2%	\$6,149	346.6%
2016	75,449	100,159	24,710	75.3%	6,097	405.3%

<sup>(1)</sup> Actuarial present value of benefits less actuarial present value of future normal costs based on entry age actuarial cost method.

<sup>(2)</sup> Actuarial accrued liabilities less actuarial value of assets.

<sup>(3)</sup> Covered Payroll includes compensation paid to all active judges for whom contributions were made to JRF. Covered Payroll differs from the Active Member Valuation Payroll shown in Exhibit 2, which is an annualized compensation of only those members who were active on the actuarial valuation date.

# EXHIBIT 5: SOLVENCY TEST (All Dollar Amounts in Thousands)

		Acti	uarial Liabilities fo				
Actuarial Valuation	Actuarial	(A)	(B)	(C) Active Members (Employer		tion of Actuari lities Covered Assets	
Date July 1	Value of Assets	Active Member Contributions	Retirees and Beneficiaries	Financed Portion)	(A)	(B)	(C)
2015 2016	\$76,468 75,449	\$3,130 3,574	\$70,487 72,304	\$24,163 24,281	100.0% 100.0%	100.0% 99.4%	11.8% 0.0%



# EXHIBIT 6: ANALYSIS OF ACTUARIAL GAINS OR LOSSES (All Dollar Amounts in Thousands)

	Gain (Loss) for Period
<del>-</del>	2015-2016
Investment Income Investment income was greater (less) than expected, net of asset smoothing, if applicable.	\$(4,184)
Pay Increases Pay increases and COLAs were less (greater) than expected.	1,462
Other Miscellaneous gains (and losses) resulting from other causes, includes gains or losses due to retiree mortality experience.	207
Total Gain (Loss) During the Period From Actuarial Experience	\$(2,515)
Contribution Income Actual contributions plus assumed investment returns were greater (less) than the normal cost and interest on the UAAL.	(883)
Non-Recurring Items Changes in actuarial assumptions and benefits caused a gain (loss). PERSI Restoration of Purchasing Power and Discretionary COLA	NA NA
Composite Gain (Loss) During the Period	\$(3,398)

Note: Effects related to losses are shown in parentheses. Numerical results are expressed as a decrease (increase) in the UAAL.

# EXHIBIT 7: SCHEDULE OF CONTRIBUTIONS FROM THE EMPLOYER (Actual Dollar Amounts)

Fiscal Year Ending	Covered Employee Payroll <sup>(1)</sup>	Total Actual Employer Contributions <sup>(2)</sup>	Actuarially Determined Contribution (ADC) <sup>(3)</sup>	Percentage of ADC Dollars Contributed
6/30/15	\$6,149,339	\$3,595,417	\$3,492,825	103%
6/30/16	6,097,302	3,370,587	3,463,268	97%

- (1) Computed as the dollar amount of the actual employee contribution made as a percentage of payroll divided by the contribution rate, expressed as a percentage of payroll.
- (2) The actual JRF employer contributions are expressed as a percentage of payroll. Employer contributions are made as a percentage of actual payroll in accordance with statute and the Board's Funding Policy. Thus, the actual employer contributions set by both statute and the Board's Funding Policy may differ from the computed Actuarially Determined Contribution (ADC) employer contribution rate for GASB disclosure purposes.
- (3) The ADC is computed as a dollar amount based on the entry age cost method and future payroll contributions from members. The ADC is computed for GASB reporting purposes only. As long as the actual contributions are made as a percentage of payroll under the current funding policy methods and assumptions, as required by the most recent actuarial valuation, the actual dollar amount of the employer contributions will differ from the dollar amount of the ADC.

# EXHIBIT 8: SCHEDULE OF CONTRIBUTIONS FROM THE EMPLOYER EXPRESSED AS A PERCENTAGE OF COVERED PAYROLL

Fiscal Year Ending	Actual JRF Employer Contribution % <sup>(1)</sup>	Annual Determined Contribution (ADC) % <sup>(2)</sup>	Percentage of ADC Contributed
6/30/15	58.47%	56.80%	103%
6/30/16	55.28%	56.80%	97%

<sup>(1)</sup> The actual JRF employer contributions are expressed as a percentage of covered payroll. Employer contributions are made as a percentage of actual payroll in accordance with the Idaho Codes. Thus, the actual employer contributions set by the Idaho Codes may differ from the computed ADC employer contribution rate for GASB disclosure purposes.

<sup>(2)</sup> The ADC is equal to the employer normal cost rate plus a 25-year amortization of any UAAL or minus a 25-year amortization of any Funding Reserve amount.



#### **EXHIBIT 9: PROVISIONS OF GOVERNING LAW**



All actuarial calculations are based on our understanding of the statutes governing the Judges' Retirement Fund of the State of Idaho, as contained in Sections 1-2001 through 1-2012, inclusive, of the Idaho Code, with amendments effective through July 1, 2016. The benefit and contribution provisions of this law are summarized briefly below, along with corresponding references to the Idaho Code. This summary does not attempt to cover all the detailed provisions of the law. Members seeking specific plan provisions should consult their member handbook. Only those benefits in effect through July 1, 2016 are considered in this valuation.

#### **Effective Year**

The effective date of the Retirement Fund was 1947.

# Member Contribution Rate

The member contribution rate effective July 1, 2016 is 10.23% of salary. Effective July 1, 2017 this rate increases to 11.57%. Members contribute to the plan during the first 20 years of service (Section 1-2004B).

# **Employer Contribution Rate**

The employer contribution rate effective July 1, 2016, 55.28% of salary is contributed by the State, during the first 20 years of service (Section 1-2004A). Effective July 1, 2017 this rate increases to 62.53%.

# Service Retirement Allowance

#### **Eligibility**

Age 65 with four years of service, 60 with 10 years of service, 55 with 15 years of service, or any age with 20 years of service (Section 1-2001).

#### Amount of Allowance

The annual service retirement allowance is 5.0% multiplied by the number of years served as either justice or judge or both, for the first 10 years of credited service plus 2.5% multiplied by the remaining number of years of credited service as either justice or judge or both, but in any event the total shall not be greater than 75%.

For members who assumed office before July 1, 2012, the retirement allowance is multiplied by the current annual compensation of the highest office in which he or she served.

For members who assumed office on or after July 1, 2012, the initial retirement allowance is multiplied by the annual compensation at the time of retirement of the highest office in which he or she served (Section 1-2001).

#### Normal Form

For members who first assumed office before July 1, 2012, monthly payments for life under a fully subsidized 50% Joint and Survivor annuity.

For members who first assumed office on or after July 1, 2012, monthly payments for life under a fully subsidized 30% Joint and Survivor annuity (Section 1-2001, 1-2001b, and 1-2009).

# Vested Retirement Allowance

#### **Eligibility**

Vested former contributing members are entitled to receive benefits upon reaching the eligibility age requirements in Section 1-2001.

#### Amount of Allowance

Accrued service retirement allowance (Section 1-2001).

# Disability Retirement Allowance

#### **Eligibility**

Four years of membership service. (Section 1-2001).

#### Amount of Allowance

The annual service retirement allowance is 5.0% multiplied by the number of years served as either justice or judge or both, for the first 10 years of credited service plus 2.5% multiplied by the remaining number of years of credited service as either justice or judge or both, but in any event the total shall not be greater than 75%.

For members who assumed office before July 1, 2012, the annual retirement allowance is multiplied by the current annual compensation of the highest office in which he or she served.

For members who assumed office on or after July 1, 2012, the annual service retirement allowance is multiplied by the annual compensation at the time of retirement of the highest office in which he or she served (Section 1-2001).

#### Normal Form

For members who first assumed office before July 1, 2012, monthly payments for life under a fully subsidized 50% Joint and Survivor annuity.

For members who first assumed office on or after July 1, 2012, monthly payments for life under a fully subsidized 30% Joint and Survivor annuity (Section 1-2001, 1-2001b, and 1-2009).

#### **Death Benefits**

#### After Retirement or Termination

For members who first assumed office before July 1, 2012, 50% of the judge's retirement benefit is continued to the surviving spouse.

For members who first assumed office on or after July 1, 2012, 30% of the judge's retirement benefit is continued to the surviving spouse.

Upon termination or retirement, a member may elect to have 100% of his or her accrued retirement benefit continued to his or her surviving spouse upon his or her death. Such election results in a reduction of his or her monthly benefit to the actuarial equivalent of their assumed normal retirement benefit, which is a 50% surviving spouse benefit if first assumed office before July 1, 2012, or a 30% surviving spouse benefit if first assumed office on or after July 1, 2012 (Sections 1-2001b and 1-2009).

#### **Before Retirement or Termination**

An amount equal to the benefit the judge would have received had he or she elected a 100% Joint and Survivor benefit before his or her death (Section 1-2009).

#### Withdrawal Benefits

Accumulated contributions with credited interest at 6.5% per annum, compounded annually (Section 1-2001).

# Postretirement Increases

For members who first assumed office before July 1, 2012, postretirement benefit increases are in proportion to increases in the salary of the highest office in which the member served (Section 1-2001).

Members who assumed office before July 1, 2012, had until August 1, 2012 to make an irrevocable election to have their postretirement benefit increases based on the Consumer Price Index as described in Idaho Code Section 59-1355. Those that made this election will instead receive the benefit increases described below.

For members who first assumed office on or after July 1, 2012, and those who made the election described in the prior paragraph, postretirement benefit increases are based on changes in the Consumer Price Index. The measurement period for changes in the CPI-U is August to August. The COLA changes are implemented effective on the July 1 following the measurement period

If the CPI-U increases by at least 1%, the COLA is at least 1%. If the CPI-U increases by more than 1%, an additional postretirement increase of up to 5% each year (but not more than the increase in the CPI-U) may be authorized by the Board, subject to the approval of the Legislature, if it finds that the Public Employee Retirement System of Idaho's (System) assets are no less in value than its actuarial liabilities, including those created by the additional increase.

If the CPI-U increases by less than 1% or decreases, the COLA is automatic, based on the change in the CPI. If a negative COLA is applicable, the negative COLA cannot decrease benefits by more than 6%. Additionally, a negative COLA cannot decrease a member's benefit below the amount of the benefit at the initial benefit date.

If a COLA is implemented that is less than the increase in the CPI-U, members' benefits will not retain their full inflation-adjusted purchasing power. In such cases the Board may implement a Restoration of Purchasing Power (ROPP) COLA at a later date to bring those members closer to 100% of inflation adjusted purchasing power. As with a discretionary COLA, a ROPP is subject to approval of the Legislature and requires that the System's assets are no less in value than its actuarial liabilities, including those created by the additional increase. (Section 59-1355).

### **Pop-Up Benefit**

Section 1-2001b, paragraph (2), provides a judge with a pop-up benefit if the named contingent annuitant predeceases the judge. This benefit equals what they would have received had they not elected the 100% Joint and Survivor form of payment.

# Retirement Under Paragraph (b)

Section 1-2001(2), paragraph (b), provides any person now serving as justice of the supreme court, a judge of the court of appeals, or a district judge of a district court an additional 2.5% multiplied by 5 years senior judge service but in any event the total shall not be greater than 75% of the current annual compensation of the highest office held while in active service. The five years of senior judge service is required for this benefit. This benefit is not available with the age 55 and 15 years of service retirement for those judges who first took office after July 1, 2012.



Helping Idaho public employees build a secure retirement.

The objectives of the Statistical Section are to provide additional historical perspective, context, and relevant details to assist readers in using the information in the financial statements, notes to the financial statements, and the required supplementary information in order to understand and assess the System's economic condition. In support of these objectives, the System has implemented GASB Statement No. 44, *Economic Condition Reporting: The Statistical Section.* 

The System is the administrator of seven fiduciary funds including three defined benefit retirement plans - the Public Employee Retirement Fund Base Plan (PERSI Base Plan) the Firefighters' Retirement Fund (FRF) and the Judges' Retirement Plan (JRF); two defined contribution plans - the Public Employee Retirement Fund Choice Plans 401(k) and 414(k) (PERSI Choice Plan); and two Sick Leave Insurance Reserve Trust Funds – one for state employers and one for school district employers. The data in Tables 1 through 4 of this section was provided by the System's actuary and Choice Plan record keeper. The data in the remaining tables was provided by the System's own records.

During FY 2016, the number of active PERSI members increased from 67,008 to 68,517. The number of retired members or annuitants receiving monthly allowances increased from 42,657 to 44,181. The number of inactive members who have not been paid a separation benefit increased from 29,827 to 31,862 Of these inactive members, 12,251 have achieved vested eligibility. Total membership in PERSI increased from 139,492 to 144,560 during the fiscal year. Table 1 of this section illustrates the diversity of our employee membership, and Table 2 shows how the membership distribution of active, retired, and inactive members has changed over the years.

As of June 30, 2016 there were 775 public employers in Idaho who were PERSI members. Tables 8 and 9 of this section illustrate the diversity of our employer participation.

Table 1
Distribution of Membership by Group

_	Acti	ive Member	s	Inac	Inactive Members			
·		Non-			Non-			
	Vested	vested	Total	Vested	vested	Total		Total
Cities	4,615	2,637	7,252	1,706	1,291	2,997	3,991	14,240
Female	1,359	924	2,283	580	538	1,118	1,401	4,802
Male	3,256	1,713	4,969	1,126	753	1,879	2,590	9,438
Counties	4.944	3,473	8,417	1,067	1,727	2,794	3,620	14,831
Female	2,364	1,779	4,143	590	974	1,564	1,921	7,628
Male	2,580	1,694	4,274	477	753	1,230	1,699	7,203
Schools	19,264	11,127	30,391	4,618	8,999	13,617	19,537	63,545
Female	14,400	8,420	22,820	3,676	7,030	10,706	14,034	47,560
Male	4,864	2,707	7,571	942	1,969	2,911	5,503	15,985
State	10,435	6,959	17,394	3,789	6,337	10,126	13,324	40,844
Female	5,378	3,635	9,013	2,168	3,537	5,705	6,815	21,533
Male	5,057	3,324	8,381	1,621	2,800	4,421	6,509	19,311
All Others	3,156	1,907	5,063	1,071	1,257	2,328	3,709	11,100
Female	940	690	1,630	555	765	1,320	1,601	4,551
Male	2,216	1,217	3,433	516	492	1,008	2,108	6,549
Grand Total	42,414	26,103	68,517	12,251	19,611	31,862	44,181	144,560
Female	24,441	15,448	39,889	7,569	12,844	20,413	25,772	86,074
Male	17,973	10,655	28,628	4,682	6,767	11,449	18,409	58,486



Table 2
Changes in Membership – PERSI Base Plan

A	ctive Membe	ers	Retired I	Members	Inactive Members
Number	Average Age	Average Years of Service	Number	Average Age	Number
65,800	46.2	10.3	29,619	71.8	22,690
66,765	46.2	10.3	30,912	71.8	23,712
67,813	46.5	10.4	32,197	71.8	23,086
67,020	46.7	10.6	33,625	71.3	24,119
65,798	46.9	10.8	35,334	71.5	25,489
65,270	46.9	10.8	37,150	71.6	26,682
65,535	46.8	10.7	38,947	71.6	27,110
66,223	46.6	10.5	40,776	71.7	28,273
67,008	46.5	10.4	42,657	71.6	29,827
68,517	46.8	10.1	44,181	71.8	31,862
	65,800 66,765 67,813 67,020 65,798 65,270 65,535 66,223 67,008	Average Age  65,800 46.2 66,765 46.2 67,813 46.5 67,020 46.7 65,798 46.9 65,270 46.9 65,535 46.8 66,223 46.6 67,008 46.5	Number         Average Age         Years of Service           65,800         46.2         10.3           66,765         46.2         10.3           67,813         46.5         10.4           67,020         46.7         10.6           65,798         46.9         10.8           65,270         46.9         10.8           65,535         46.8         10.7           66,223         46.6         10.5           67,008         46.5         10.4	Number         Average Age         Average Years of Service         Number           65,800         46.2         10.3         29,619           66,765         46.2         10.3         30,912           67,813         46.5         10.4         32,197           67,020         46.7         10.6         33,625           65,798         46.9         10.8         35,334           65,270         46.9         10.8         37,150           65,535         46.8         10.7         38,947           66,223         46.6         10.5         40,776           67,008         46.5         10.4         42,657	Number         Average Age         Average Years of Service         Number         Average Age           65,800         46.2         10.3         29,619         71.8           66,765         46.2         10.3         30,912         71.8           67,813         46.5         10.4         32,197         71.8           67,020         46.7         10.6         33,625         71.3           65,798         46.9         10.8         35,334         71.5           65,270         46.9         10.8         37,150         71.6           65,535         46.8         10.7         38,947         71.6           66,223         46.6         10.5         40,776         71.7           67,008         46.5         10.4         42,657         71.6

Table 3a
Retired Members by Type of Benefit – PERSI Base Plan

		Type of Retirement			Option Se	elected
Amount of Monthly Benefit	Total Number of Retirees	Normal	Disability	Beneficiary	Joint & Survivor <sup>1</sup>	Straight Life <sup>2</sup>
\$0 - 250	5,519	4,865	6	648	1,483	4,036
251 - 500	6,195	5,594	54	547	1,493	4,702
501 - 750	4,911	4,347	154	410	1,236	3,675
751 - 1,000	3,892	3,412	170	310	1,057	2,835
1,001 - 1,250	3,371	2,943	164	264	980	2.391
1,251 - 1,500	2,783	2,402	192	189	825	1,958
1,501 - 1,750	2,496	2,171	179	146	789	1,707
1,751 - 2,000	2,206	1,953	145	108	745	1,461
Over 2,000	12,808	12,013	491	304	4,759	8,049
Totals	44,181	39,700	1,555	2,926	13,367	30,814

<sup>&</sup>lt;sup>1</sup>Joint & Survivor (also known as Contingent Annuitant)

<sup>&</sup>lt;sup>2</sup>Single Life Options include Straight Life, Cash Refund, Social Security and all other FOPs.

Table 3b

Retired Members by Type of Benefit – Firefighters' Retirement Fund

			Type of Retir	Option S	Selected	
Amount of Monthly Benefit	Total Number of Retirees	Normal	Disability	Beneficiary	Joint & Survivor <sup>1</sup>	Straight Life <sup>2</sup>
\$0 - 250	4	2		2	2	2
251 - 500	11	2		9	2	9
501 - 750	6	3		3	3	3
751 - 1,000	10	8		2	8	2
1,001 - 1,250	15	10	1	4	11	4
1,251 - 1,500	17	13	1	3	14	3
1,501 - 1,750	11	9	1	1	10	1
1,751 - 2,000	24	17	2	5	19	5
Over 2,000	426	290	25	111	315	111
Totals	524	354	30	140	384	140

<sup>&</sup>lt;sup>1</sup>Joint & Survivor (also known as Contingent Annuitant)

Monthly benefit refers to the benefit payable by the FRF plan (total benefit less PERSI benefit).

All FRF retirees and disableds are valued with two benefits and two options.

All FRF beneficiaries are valued using a Straight Life option.

Table 3c
Retired Members by Type of Benefit – Judges' Retirement Fund

			Type of Retir	Option S	Selected	
Amount of Monthly Benefit	Total Number of Retirees	Normal	Disability	Beneficiary	Joint & Survivor <sup>1</sup>	Straight Life <sup>2</sup>
\$0 - 2,000	7	1		6	1	6
2,001 - 2,500	2	1		1	1	1
2,501 -3,000	8	2		6	2	6
3,001 - 3,500	4	2		1	1	2
3,501 - 4,000	9	3		7	2	8
4,001 - 4,500	11	6		5	5	6
4,501 - 5,000	2	2			2	
5,001 - 5,500	2	2			2	
Over 5,500	49	47		2	36	13
Totals	94	66		28	52	42

<sup>&</sup>lt;sup>1</sup>Joint & Survivor (also known as Contingent Annuitant)

<sup>&</sup>lt;sup>2</sup>Single Life Options include Straight Life, Cash Refund, Social Security and all other FOPs.

<sup>1)</sup> The benefit payable by the FRF plan is valued using a Straight Life option.

<sup>2)</sup> The total benefit is valued using a Spouse Reversionary option (spouse benefit payable upon the death of the retiree or disabled).

<sup>&</sup>lt;sup>2</sup>Single Life



Table 3d
Retired Members by Type of Benefit – PERSI Choice Plan

Amount of Monthly Benefit	Total Number of Retirees	Both 414(k) and 401(k)	414(k) Only	401(k) Only
\$0 - 250	51	36	6	9
251 - 500	71	54	5	12
501 - 750	28	22		6
751 - 1,000	23	16	3	4
1,001 - 1,250	6	6		
1,251 - 1,500	2	1		1
1,501 - 1,750	1			1
1,751 - 2,000	3	2		1
Over 2,000	7	6		1
Totals	192	143	14	35



Table 4a Average Benefit Payments – PERSI Base Plan

Retirement Effective Dates			Years (	Credited S	Service		
	0-4	5 - 9	10 - 14	15 - 19	20 - 24	25 - 29	30+
Period 7/1/06 to 6/30/07							
Average monthly benefit	\$343	\$328	\$621	\$964	\$1,529	\$2,242	\$3,136
Average final average salary	\$1,893	\$2,270	\$2,515	\$2,963	\$3,532	\$4,019	\$4,611
Number of retired members	58	329	303	307	282	318	460
Period 7/1/07 to 6/30/08							
Average monthly benefit	\$432	\$331	\$619	\$1,029	\$1,555	\$2,228	\$3,029
Average final average salary	\$1,665	\$2,176	\$2,672	\$3,172	\$3,673	\$5,549	\$4,570
Number of retired members	49	291	268	290	295	309	489
Period 7/1/08 to 6/30/09							
Average monthly benefit	\$589	\$339	\$646	\$1,079	\$1,508	\$2,281	\$3,121
Average final average salary	\$2,157	\$2,339	\$2,630	\$3,319	\$3,625	\$4,174	\$4,760
Number of retired members	67	319	274	318	290	345	482
Period 7/1/09 to 6/30/10							
Average monthly benefit	\$388	\$330	\$648	\$990	\$1,481	\$2,290	\$3,197
Average final average salary	\$1,475	\$2,355	\$2,743	\$3,067	\$3,628	\$4,231	\$4,809
Number of retired members	43	306	295	340	333	343	506
Period 7/1/10 to 6/30/11	<b>4</b>				•		
Average monthly benefit	\$474	\$366	\$654	\$1,044	\$1,539	\$2,358	\$3,271
Average final average salary	\$1,956 53	\$2,552 403	\$2,786 329	\$3,239 365	\$3,713 356	\$4,385 382	\$4,854 581
Number of retired members	55	403	329	303	330	302	301
Period 7/1/11 to 6/30/12							
Average monthly benefit	\$419	\$369	\$662	\$1,096	\$1,591	\$2,363	\$3,279
Average final average salary	\$1,568	\$2,445	\$2,818	\$3,286	\$3,778	\$4,283	\$4,789
Number of retired members	61	440	348	376	406	405	530
Period 7/1/12 to 6/30/13	•				•		
Average monthly benefit	\$535	\$365	\$688	\$1,102	\$1,577	\$2,413	\$3,351
Average final average salary	\$2,482	\$2,408	\$2,888	\$3,303	\$3,725	\$4,421	\$4,933
Number of retired members	58	475	404	381	406	391	496
Period 7/1/13 to 6/30/14							
Average monthly benefit	\$276	\$383	\$681	\$1,166	\$1,681	\$2,351	\$3,317
Average final average salary	\$2,470	\$2,476	\$2,788	\$3,425	\$3,905	\$4,360	\$4,920
Number of retired members	45	455	423	419	390	414	516
Period 7/1/14 to 6/30/15							
Average monthly benefit	\$706	\$346	\$726	\$1,080	\$1,647	\$2,464	\$3,364
Average final average salary	\$3,009	\$2,314	\$3,020	\$3,267	\$3,839	\$4,486	\$4,977
Number of retired members	46	482	411	403	385	409	525
Period 7/1/15 to 6/30/16							
Average monthly benefit	\$663	\$382	\$736	\$1,151	\$1,737	\$2,530	\$3,354
Average final average salary	\$2,476	\$2,495	\$3,060	\$3,501	\$4,017	\$4,603	\$4,958
Number of retired members	39	375	362	355	397	408	461



Table 4b

Average Benefit Payments – Firefighters' Retirement Fund

Retirement Effective Dates	0-4	<u>Year</u> 5 - 9 10 - 14		s Credited 15 - 19	<u> 20 - 24</u>	25 - 29	30+
Period 7/1/06 to 6/30/07 Average monthly benefit Average Final Average Salary Number of retired members							\$606 *
Period 7/1/07 to 6/30/08		No	Valuation	Complet	ed		
Period 7/1/08 to 6/30/09 Average monthly benefit Average Final Average Salary Number of retired members							\$315 \$5,440 2
Period 7/1/09 to 6/30/10		No	Valuation	Complet	ed		
Period 7/1/10 to 6/30/11 Average monthly benefit Average Final Average Salary	**		**	**	**	**	**
Period 7/1/11 to 6/30/12		No	Valuation	Complet	ed		
Period 7/1/12 to 6/30/13 Average monthly benefit Average Final Average Salary	**		**	**	**	**	**
Period 7/1/13 to 6/30/14 Average monthly benefit Average Final Average Salary Number of retired members							\$6,256 *
Period 7/1/14 to 6/30/15 Average monthly benefit Average Final Average Salary	**		**	**	**	**	**
Period 7/1/15 to 6/30/16 Average monthly benefit Average Final Average Salary	**	•	**	**	**	**	**

<sup>\*</sup>Average final average salary is not the basis for calculating benefits on the classes of firefighters in the group.

<sup>\*\*</sup> No retirements for the fiscal year



Table 4c

Average Benefit Payments – Judges' Retirement Plan

<b>Retirement Effective Dates</b>	Years of Service							
	0 - 4*	5 - 9	10 - 14	15 - 19	20 - 24	25 - 29	30+	
Period 7/1/14 to 6/30/15 Average monthly benefit Number of retired members	\$1,870 1	\$3,555 1	\$5,128 1		\$8,041 3			
Period 7/1/15 to 6/30/16 Average monthly benefit Number of retired members			\$7,897 1	\$7,330 1				

Schedule is intended to show information for 10 years. Additional years will be displayed as they become available



Table 4d Average Benefit Payments – PERSI Choice Plan

Retirement Effective Dates	Years of Service						
	0 - 4*	5 - 9	10 - 14	15 - 19	20 - 24	25 - 29	30+
Period 7/1/06 to 6/30/07							
Average monthly benefit			\$150	\$425	\$409	\$616	\$648
Number of retired members			2	2	2	4	4
Period 7/1/07 to 6/30/08							
Average monthly benefit		\$1,788 2	\$278 2	\$600 2	\$675 2	\$300 1	\$756 8
Number of retired members		۷	۷	۷	۷	ı	0
Period 7/1/08 to 6/30/09		<b>#</b> 505		<b>#</b> 450	<b>#</b> 5.40	<b>004</b> 7	<b>4000</b>
Average monthly benefit  Number of retired members		\$525 3	0	\$452 8	\$542 7	\$817 3	\$360 10
Number of redired members		3	U	O	,	3	10
Period 7/1/09 to 6/30/10	<b>.</b>	<b>A</b>	<b>***</b>	<b>4-</b> 00	<b>4-</b>	<b>DO 10</b>	<b>4-</b> 00
Average monthly benefit	\$445 1	\$1,063 7	\$285 7	\$566 19	\$729 11	\$642 8	\$529 28
Number of retired members	'	,	1	19	11	0	20
Period 7/1/10 to 6/30/11							
Average monthly benefit	\$445	\$913	\$378	\$511	\$794	\$621	\$674
Number of retired members	1	11	11	25	17	14	38
Period 7/1/11 to 6/30/12							
Average monthly benefit	\$850	\$525	\$425	\$514	\$534	\$489	\$588
Number of retired members	1	12	14	30	12	13	37
Period 7/1/12 to 6/30/13							
Average monthly benefit	\$820	\$456	\$515	\$554	\$480	\$683	\$644
Number of retired members	2	14	14	27	22	17	44
Period 7/1/13 to 6/30/14							
Average monthly benefit	\$120	\$890	\$534	\$1,124	\$560	\$656	\$560
Number of retired members	1	10	15	23	13	17	41
Period 7/1/14 to 6/30/15							
Average monthly benefit	\$588	\$1,665	\$844	\$1,341	\$747	\$927	\$738
Number of retired members	2	14	25	26	13	22	43
Period 7/1/15 to 6/30/16							
Average monthly benefit	\$318	\$945	\$606	\$585	\$577	\$563	\$499
Number of retired members	5	18	37	26	29	29	48

<sup>\*</sup>Average final average salary data not applicable for this defined contribution plan. The average monthly benefit is determined by the retiree and can vary significantly based on the number of months the retiree chooses to receive payments

Table 5
Schedule of Benefit Expenses by Type

	Age & S	Service		Disabilities				
	Bene	efits	Retira	nts (1)	•	Refu	ınds	
Fiscal <u>Year</u>	<u>Retirants</u>	Survivors (2)	<u>Pre-NRA</u>	Post-NRA	<u>Survivors</u>	<u>Death</u>	<u>Separation</u>	<u>Total</u>
PERSI	BASE PLAN a	and FRF						
2011 2012 2013 2014 2015 2016	522,613,510 561,784,458 602,758,058 677,054,949 685,057,604 731,945,232	31,181,280 32,850,337	18,053,494 18,557,300 19,229,642 19,263,836 18,982,851 18,968,148	8,716,510 9,483,506 10,737,466 11,699,605 12,714,575 13,955,913	1,207,594 1,263,805 1,385,697 1,499,603 1,769,618 1,943,926	8,554,827 10,018,545 11,562,936 12,414,898 11,212,116 10,556,133	30,198,785 30,812,354 32,266,986 33,959,615 28,354,914 32,307,543	616,611,884 660,316,628 707,788,583 787,073,786 790,942,015 844,488,993
JUDGES' RETIREMENT PLAN								
2015 2016	4,683,420 5,059,316	893,969 915,621						
PERSI	CHOICE PLAI	N						

10,110,544
9,464,776
10,251,319
11,147,689
15,662,811
41,363,965

# SICK LEAVE INSURANCE RESERVE TRUST FUND

2011	15,267,853
2012	16,310,005
2013	16,687,698
2014	17,373,642
2015	17,853,009
2016	18,438,911

<sup>(1)</sup> The split between duty and non-duty disabilities is not available.

NRA = Normal Retirement Age. PERSI members with disability benefits convert to age & service retirants at NRA (60 for Fire & Police, 65 for other members).

Schedule is intended to show information for 6 years. Additional years will be displayed as they become available

<sup>(2)</sup> Benefit amounts are not available. All survivors are included with the Age & Service Benefits survivors.



Table 6
History of Cost-of-Living Adjustments

Year (1)	CPI Rate	PERSI COLA Rate	Maximum COLA	Difference	
1980	12.2	6.0	6.0	0.0	
1981	12.6	6.0	6.0	0.0	
1982	10.2	6.0	6.0	0.0	
1983	5.1	5.1	5.1	0.0	
1984	2.9	2.9	2.9	0.0	
1985	4.2	4.2	4.2	0.0	(2)
1986	3.2	1.0	3.2	2.2	(2)
1987	1.5	1.5	1.5	0.0	(2)
1988	4.5	1.0	4.5	3.5	
1989	4.2	1.0	4.2	3.2	(2)
1990	4.7	4.7	4.7	0.0	
1991	5.6	5.6	5.6	0.0	
1992	3.8	3.8	3.8	0.0	
1993	3.1	3.1	3.1	0.0	
1994	2.8	2.8	2.8	0.0	
1995	2.9	2.9	2.9	0.0	
1996	2.6	2.6	2.6	0.0	
1997	2.9	2.9	2.9	0.0	
1998	2.2	2.2	2.2	0.0	(0)
1999	1.6	1.6	1.6	0.0	(2)
2000	2.3	2.3	2.3	0.0	
2001	3.4	3.4	3.4	0.0	
2002	2.7	2.7	2.7	0.0	(3)
2003	1.8	1.0	1.8	8.0	(3)
2004	2.2	2.2	2.2	0.0	(3)
2005	2.7	2.7	2.7	0.0	(3)
2006	3.6	3.6	3.6	0.0	
2007	3.8	3.8	3.8	0.0	
2008	2.0	2.0	2.0	0.0	
2009	5.4	1.0	5.4	4.4	(4), (5)
2010	-1.48	1.0	-1.48	0.0	(4)
2011	1.15	1.0	1.15	0.15	(5) (6)
2012	3.77	1.0	3.77	2.77	(5)
2013	1.69	1.0	1.69	.69	
2014	1.59	1.0	1.59	.59	
2015	1.7	1.7	1.7	0.0	(5)
2016	.2	.2	.2	0.0	
2017	1.1	1.1	1.1	0.0	

<sup>(1)</sup> For years 1980 through 1986, based on the prior year annual change in CPI-U, August to August, adjustments were effective January 1. Beginning in 1987, adjustments were effective March 1.

<sup>(2)</sup> Retro-active COLAs were awarded effective March 1, 1999 to re-establish purchasing power for the years 1986, 1988, 1989.

<sup>(3)</sup> A retro-active COLA was awarded effective March 1, 2005 to re-establish purchasing power for 2003.

<sup>(4)</sup> A retro-active COLA of 2.48% was awarded effective March 1, 2010 to re-store partial purchasing power for 2009 for a net COLA of 1%.

<sup>(5)</sup> A retro-active COLA of up to 2.3% was awarded effective March 1, 2015 to re-establish purchasing power for the years 2009, 2011, 2012.

<sup>(6)</sup> A retro-active COLA of up to .8% was awarded effective March 1, 2016 to re-establish purchasing power for the year 2011.



This page left intentionally blank

# Table 7a Changes in Net Position - Base Plan (last 10 fiscal years)

	2007	2008	2009
Additions:			
Employee Contributions	159,601,160	170,710,597	180,063,010
Employer Contributions	259,489,787	273,410,279	284,608,663
Investment Income <sup>1</sup>	249,200,581	275,703,902	221,899,829
Gains and Losses	1,544,783,501	(779,405,404)	(1,920,771,032)
Transfers/Rollovers In			
Other Income	238,637	215,297	84,268
Total additions to plan net position	2,213,313,666	(59,365,329)	(1,234,115,262)
Deductions			
Benefit Payments	408,095,615	448,660,441	483,128,952
Refunds	27,570,866	31,151,910	34,845,676
Administrative Expenses	6,680,619	5,905,580	6,232,678
Transfers/Rollovers Out			
Total deductions to plan net position	442,347,100	485,717,931	524,207,306
Change in net position	1,770,966,566	(545,083,260)	(1,758,322,568)

<sup>&</sup>lt;sup>1</sup> Investment income is reported net of investment expense.



2010	2011	2012	2013	2014	2015	2016
178,124,381	178,415,845	179,168,074	184,652,290	203,890,954	211,468,780	220,866,936
284,932,418	279,174,844	277,143,887	285,440,860	310,986,283	321,240,628	335,610,100
200,479,456	231,745,111	240,033,473	247,522,779	279,876,227	273,500,316	277,666,987
833,597,303	1,697,095,152	(102,816,241)	726,899,521	1,719,909,543	97,579,801	(72,888,917)
12,261	37,716	24,089	16,311	12,690	16,767	25,283
1,497,145,819	2,386,468,668	593,553,282	1,444,531,761	2,514,675,697	903,806,292	761,280,389
517,046,719	558,619,602	599,848,356	654,141,410	694,765,148	742,712,826	792,705,222
36,747,852	38,753,611	40,830,899	33,845,755	34,828,507	28,354,914	32,307,543
6,471,359	5,973,540	6,231,431	6,308,487	6,787,811	6,434,462	6,806,655
560,265,930	603,346,753	646,910,686	694,295,652	736,381,466	777,502,202	831,819,420
936,879,889	1,783,121,915	(53,357,404)	750,236,109	1,778,294,231	126,304,090	(70,539,031)

Table 7b

Changes in Net Position - FRF Plan (last 10 fiscal years)

	2007	2008	2009
Additions:			
Employee Contributions	34,588	23,190	18,753
Employer Contributions	12,130,774	12,866,827	13,434,204
Investment Income 1	6,625,115	7,249,703	5,772,048
Gains and Losses	41,068,797	(20,494,659)	(49,963,011)
Transfers/Rollovers In			
Other Income			
Total additions to plan net position	59,859,274	(354,939)	(30,738,006)
Deductions			
Benefit Payments	17,083,762	17,163,333	17,945,071
Refunds			, ,
Administrative Expenses			
Transfers/Rollovers Out			
Total deductions to plan net position	17,083,762	17,163,333	17,945,071
Change in net position	42,775,512	(17,518,272)	(48,683,077)

<sup>&</sup>lt;sup>1</sup> Investment income is reported net of investment expense.



2010	2011	2012	2013	2014	2015	2016
40.405	40.740	44.400	44.400	0.005	0.400	0.000
16,185	13,746	11,100	11,136	9,095	6,168	6,329
13,542,331	13,313,715	13,486,309	14,227,313	14,200,323	11,305,473	7,198,597
5,165,228	5,912,515	6,096,564	6,289,701	8,078,269	6,896,831	6,892,864
21,423,526	43,298,001	(2,611,410)	18,470,947	49,642,989	2,461,078	(1,809,410)
40,147,270	62,537,977	16,982,563	38,999,097	71,930,676	20,669,550	12,288,380
18,372,312	19,238,671	19,637,373	19,801,418	19,958,800	19,874,275	19,476,228
					153,719	58,873
18,372,312	19,238,671	19,637,373	19,801,418	19,958,800	20,027,994	19,535,101
21,774,958	43,299,306	(2,654,810)	19,197,679	51,971,876	641,556	(7,246,721)



Table 7c

Changes in Net Position - Choice
Plan 401(k) (last 10 fiscal years)

	2007	2008	2009	2010
Additions:				
Employee Contributions	29,668,354	34,868,605	35,680,207	33,413,555
Employer Contributions	190,850	217,878	153,211	127,154
Investment Income 1	6,331,682	6,606,090	6,144,038	6,144,609
Gains and Losses	26,809,103	(20,059,176)	(45,522,778)	20,858,277
Transfers/Rollovers In	8,512,489	8,946,219	6,057,764	4,867,768
Other Income				
Total additions to plan net position	71,512,478	30,579,616	2,512,442	65,411,363
Deductions				
Benefit Payments	3,568,243	3,882,154	4,951,776	6,013,245
Refunds				
Administrative Expenses				
Transfers/Rollovers Out	5,015,298	5,982,049	7,069,099	7,676,334
Total deductions to plan net position	8,583,541	9,864,203	12,020,875	13,689,579
Change in net position	62,928,937	20,715,413	(9,508,433)	51,721,784

<sup>&</sup>lt;sup>1</sup> Investment income is reported net of investment expense.



2011	2012	2013	2014	2015	2016
33,068,567	32,417,476	36,341,951	39,062,685	42,874,459	45,299,030
180,556	383,189	9,119,848	14,230,058	5,166,873	4,778,923
7,441,583	8,267,997	9,431,394	11,462,165	9,589,538	12,385,370
51,079,923	(1,861,880)	31,292,784	69,529,511	9,030,653	(3,529,621)
7,469,551	9,576,929	9,132,179	10,706,301	14,575,338	11,868,500
99,240,180	48,783,711	95,318,156	144,990,720	81,236,861	70,802,202
7,771,465	7,123,041	8,018,315	8,936,739	12,729,966	35,985,817
					4 000 540
40 000 007	40 000 005	45 000 040	40.004.440	00 004 470	1,069,543
12,032,837	13,323,865	15,382,348	18,901,443	23,364,173	
19,804,302	20,446,906	23,400,663	27,838,182	36,094,139	37,055,360
79,435,878	28,336,805	71,917,493	117,152,538	45,142,722	33,746,842



Table 7d

Changes in Net Position - Choice
Plan 414(k) (last 10 fiscal years)

	2007	2008	2009
Additions:			
Employee Contributions			
Employer Contributions			
Investment Income <sup>1</sup>	1,781,823	1,789,833	1,365,004
Gains and Losses	9,903,322	(4,902,983)	(11,880,802)
Transfers/Rollovers In			
Other Income			
Total additions to plan net position	11,685,145	(3,113,150)	(10,515,798)
Deductions			
Benefit Payments	1,695,744	1,749,823	1,814,867
Refunds			
Administrative Expenses			
Transfers/Rollovers Out	1,242,579	1,291,002	1,056,981
Total deductions to plan net position	2,938,323	3,040,825	2,871,848
Change in net position	8,746,822	(6,153,975)	(13,387,646)

<sup>&</sup>lt;sup>1</sup> Investment income is reported net of investment expense.



2010	2011	2012	2013	2014	2015	2016
			6,462			
1,168,118	1,244,977	1,190,148	1,192,371	1,293,253	901,407	227,137
4,877,123	9,321,922	(564,614)	3,732,343	8,177,394	776,244	639,034
6,045,241	10,566,899	625,534	4,931,176	9,470,647	1,677,651	866,171
1,690,346	2,339,079	2,341,735	2,233,004	2,210,950	2,932,845	5,378,148
						F22 170
1,208,031	1,627,984	1,619,181	1,619,036	1,661,723	2,049,671	523,170
2,898,377	3,967,063	3,960,916	3,852,040	3,872,673	4,982,516	5,901,318
3,146,864	6,599,836	(3,335,382)	1,079,136	5,597,974	(3,304,865)	(5,035,147)

Table 7e

Changes in Net Position – Sick
Leave Insurance Reserve Fund –
State (last 10 fiscal years)

	2007	2008	2009
Additions:			
Employer Contributions	5,343,549	5,681,376	5,889,260
Net appreciation (depreciation) <sup>1</sup>	10,636,103	(10,878,863)	(9,976,100)
Other Income	8,521	10,520	2,554
Total additions to plan net position	15,988,173	(5,186,967)	(4,084,286)
Deductions			
Benefit Payments	2,990,660	3,628,582	4,328,025
Administrative Expenses	29,842	29,823	35,486
Total deductions to plan net position	3,020,502	3,658,405	4,363,511
Change in net position	12,967,671	(8,845,372)	(8,447,797)

Table 7f

Changes in Net Position – Sick
Leave Insurance Reserve Fund –
School (last 10 fiscal years)

	2007	2008	2009
Additions:			
Employer Contributions	12,504,038	13,150,921	13,669,429
Net appreciation (depreciation) <sup>1</sup>	17,548,185	(17,999,083)	(16,505,489)
Other Income	14,034	17,345	6,054
Total additions to plan net position	30,066,257	(4,830,817)	(2,830,006)
Deductions			
Benefit Payments	8,656,757	9,238,739	10,011,758
Administrative Expenses	49,148	49,167	58,714
Total deductions to plan net position	8,705,905	9,287,906	10,070,472
Change in net position	21,360,352	(14,118,723)	(12,900,478)

<sup>&</sup>lt;sup>1</sup> Reported net of investment expense.



2010	2011	2012	2013	2014	2015	2016
5,790,947	5,675,940	5,793,204	6,049,837	6,088,489	6,347,903	6,804,354
9,814,139	19,114,477	2,298,334	15,142,268	23,097,449	5,722,685	3,356,390
2,042	2,656	3,690	1,290	1,079	600	889
15,607,128	24,793,073	8,095,228	21,193,395	29,187,017	12,071,188	10,161,633
3,656,816	3,765,826	3,463,901	4,049,618	4,366,900	4,510,989	4,980,235
39,080	39,148	39,346	39,876	40,181	40,375	40,752
3,695,896	3,804,974	3,503,247	4,089,494	4,407,081	4,551,364	5,020,987
11,911,232	20,988,099	4,591,981	17,103,901	24,779,936	7,519,824	5,140,646

2010	2011	2012	2013	2014	2015	2016
13,855,046	13,307,372	12,866,373	13,380,821	13,264,646	13,521,617	13,978,967
16,376,593	31,830,496	3,796,750	24,479,545	36,880,546	9,043,823	3,919,755
2,877	2,064	740	724	327	164	360
30,234,516	45,139,932	16,663,863	37,861,090	50,145,519	22,565,604	17,899,082
10,647,446	11,502,027	12,846,104	12,638,080	13,006,742	13,342,020	13,458,676
65.259	65,192	64,994	64,464	64,159	63,965	63,588
10,712,705	11,567,219	12,911,098	12,702,544	13,070,901	13,405,985	13,522,264
19,521,811	33,572,713	3,752,765	25,158,546	37,074,618	9,159,619	4,376,818



Table 7g Changes in Net Position – JRF

	2015	2016
Additions:		
Employee Contributions	629,077	623,754
Employer Contributions	3,595,417	3,370,587
Investment Income <sup>1</sup>	1,523,041	1.505.550
Net appreciation (depreciation)	526,854	(413,420)
Other Income	2,063	2,571
Total additions to plan net position	6,276,452	5,089,042
Deductions		
Benefit Payments	5,577,389	5,974,937
Administrative Expenses	95,733	133,096
Total deductions to plan net position	5,673,122	6,108,033
Special Item – Transfer in of Judges' Retirement Fund	75,864,300	
Change in net position	76,467,630	(1,018,991)

Schedule is intended to show information for 10 years. Additional years will be displayed as they become available.

<sup>&</sup>lt;sup>1</sup> Reported net of investment expense.



# 2016

	Covered		Percentage of Total
Participating Employers	<b>Employees</b>	Rank	System
State of Idaho	17,394	1	25%
West Ada School District (formerly Meridian School District)	3,391	2	5%
Boise Ind. School District	3,050	3	4%
Ada County	1,640	4	2%
City of Boise	1,347	5	2%
Nampa School District	1,319	6	2%
Pocatello School District	1,174	7	2%
Bonneville School District	1,075	8	2%
Coeur d'Alene School District	1,029	9	2%
Twin Falls School District	926	10	1%
All other	36,172		53%
Total (775 employers)	68,517	: :	100%

# 2007

			Percentage of
	Covered		Total
Participating Employers	<b>Employees</b>	Rank	System
State of Idaho	18,183	1	28%
Meridian School District	3,243	2	5%
Boise Ind School District	2,987	3	5%
Ada County	1,409	4	2%
Nampa School District	1,403	5	2%
City of Boise	1,233	6	2%
Pocatello School District	1,174	7	2%
Idaho Falls School District	1,046	8	1%
Coeur d'Alene School District	1,009	9	1%
Bonneville School District	848	10	1%
All other	33,265	-	51%
Total (611 employers)	65,800	=	100%

## Table 9

# **Public Entities Participating in PERSI**

# **State Agencies**

Accountancy Board
Administration Dept.
Aging Commission
Agriculture Dept.
Arts Commission
Attorney General
Barley Commission
Bean Commission
Beef Council
Blind Commission
Boise State University
Brand Inspector

Building Safety Division Commerce Dept. Controller's Office Corrections Dept.

Correctional Industries

Dairy Council Dentistry Board

Eastern Idaho Technical College

**Education Board** 

Endowment Fund Investment

Board

Environmental Quality Dept.

Finance Dept.

**Financial Management Division** 

Fish and Game Dept. Forest Products Com. Governor's Office

Health and Welfare Dept.

Health Dist.#1
Health Dist.#2
Health Dist.#3
Health Dist.#4
Health Dist.#5
Health Dist.#6
Health Dist.#7

**Hispanic Affairs Commission** 

**Historical Society** 

**Human Resources Division** 

Idaho Div. Prof.-Tech. Education

Idaho Grape Growers and Wine

Producers Commission Idaho Oilseed Commission Idaho Public Television

ID Rangeland Resources Com.

Idaho State Bar
Idaho State Police
Idaho State University
Independent Living Council

Industrial Commission

Insurance Dept.
Insurance Fund
Judicial Branch
Juvenile Corrections

Labor Dept. Lands Dept.

Lava Hot Springs Foundation

Legislative Services

Legislature - House of Reps.

Legislature - Senate Lewis-Clark State College

Library

Lieutenant Governor Liquor Dispensary

Lottery

Medicine Board Military Division Nursing Board

Occupational Licenses Bureau

Office of Drug Policy

Office of Energy Resources

Office of Performance

**Evaluations** 

Outfitters and Guides Parks & Recreation

Pardons and Paroles Com

Pharmacy Board Potato Commission Prof. Engineers & Land

Surveyors

Public Employee Retire. Sys. Public Defense Commission Public Utilities Commission

Racing Commission
Real Estate Commission

Secretary of State

Soil Conservation Commission Species Conservation Office State Appellate Public Defender

STEM Action Center

Superintendent of Public Instr.

Tax Appeals Board Tax Commission Transportation Dept.

Treasurer

University of Idaho Veterans Services Division Veterinary Medicine Board Vocational Rehabilitation Water Resources Dept. Wheat Commission

# **Counties**

Ada County Adams County **Bannock County Bear Lake County Benewah County** Bingham County Blaine County **Boise County Bonner County** Bonneville County **Boundary County Butte County Camas County** Canyon County Caribou County Cassia County Clark County Clearwater County **Custer County** Elmore County Franklin County Fremont County Gem County **Gooding County** Idaho County Jefferson County Jerome County Kootenai County Latah County Lemhi County Lewis County Lincoln County Madison County Minidoka County **Nez Perce County Oneida County** Owyhee County **Payette County Power County Shoshone County Teton County** Twin Falls County Valley County

# **Cities**

City of Aberdeen City of Albion

Washington County



City of American Falls
City of Ammon
City of Arco
City of Ashton
City of Athol
City of Bancroft
City of Basalt
City of Blackfoot
City of Bliss
City of Bellevue
City of Bloomington
City of Boise
City of Bonners Ferry
City of Bovill
City of Buhl

City of Bonners Ferr City of Bovill City of Buhl City of Burley City of Caldwell City of Cambridge City of Cascade City of Castleford City of Challis

City of Chubbuck

City of Clark Fork

City of Coeur d' Alene City of Cottonwood City of Council City of Craigmont City of Culdesac City of Dalton Gardens

City of Deary
City of Declo
City of Donnelly
City of Dover
City of Downey
City of Driggs
City of Dubois
City of Eagle
City of Emmett
City of Fairfield
City of Filer

City of Firth
City of Franklin
City of Fruitland
City of Garden City
City of Genesee
City of Georgetown
City of Glenns Ferry
City of Gooding
City of Grace
City of Grangeville
City of Greenleaf
City of Hagerman
City of Hailey

City of Hayden

City of Hazelton

City of Hayden Lake

City of Heyburn City of Homedale City of Hope

City of Horseshoe Bend City of Idaho Falls City of Inkom

City of Iona
City of Island Park
City of Jerome
City of Juliaetta
City of Kamiah
City of Kellogg
City of Kendrick

City of Kendrick
City of Ketchum
City of Kimberly
City of Kooskia
City of Kootenai
City of Kuna
City of Lapwai

City of Lava Hot Springs City of Lewiston

City of Mackay
City of Malad
City of Malta
City of Marsing
City of McCall
City of McCammon
City of Melba
City of Menan
City of Meridian
City of Middleton
City of Montpelier

City of Moscow City of Mountain Home City of Moyie Springs

City of Mullan
City of Nampa

City of New Meadows City of New Plymouth City of Newdale

City of Nezperce City of Notus City of Oakley City of Oldtown City of Orofino City of Osburn City of Paris City of Parker City of Parma City of Paul City of Payette City of Pinehurst

City of Plummer City of Pocatello City of Ponderay City of Post Falls City of Potlatch City of Preston City of Priest River City of Rathdrum City of Rexburg City of Richfield City of Rigby

City of Richfield
City of Rigby
City of Riggins
City of Ririe
City of Roberts
City of Rupert
City of Salmon
City of Sandpoint
City of Shelley
City of Shoshone
City of Smelterville
City of Soda Springs

City of Spirit Lake
City of St. Anthony
City of St. Charles
City of St. Maries
City of Sugar City
City of Sun Valley
City of Tensed
City of Teton
City of Tetonia
City of Troy
City of Twin Falls
City of Ucon
City of Victor
City of Wallace

City of Weippe City of Weiser City of Wendell City of Weston City of Wilder City of Winchester City of Worley

# **Water and Sewer Districts**

**A&B Irrigation District** 

Ada County Drainage Dist.#2
Aberdeen-Springfield Canal Co.
American Falls Reservoir Dist.#1
American Falls Reservoir Dist.#2

Avondale Irrigation Dist. Big Lost River Irrigation Big Wood Canal Co.

Black Canyon Irrigation Dist. Boise-Kuna Irrigation Dist. Boise Project Board of Control

Burley Irrigation Dist.

Cabinet Mountain Water Dist. Caldwell Irrigation Lateral Dist. Canyon Hill Irrigation Dist.

Cataldo Water Dist.



Central Shoshone Cnty Water Dist. Water Dist.#34 Dalton Gardens Irrigation Dist. East Green Acres Irrigation Dist. East Shoshone Cnty Water Dist. Falls Irrigation District Fish Haven Area Rec. Sewer Dist. Fremont-Madison Irrigation Dist. Grandview Mutual Canal Co. Granite Reeder Water & Sewer Hayden Lake Recreational Water & Sewer Dist.

Hayden Lake Irrigation Dist. Idaho Irrigation Dist. Kalispel Bay Water/Sewer Dist. King Hill Irrigation Dist. Kingston Water Dist. Kootenai-Ponderay Sewer Dist. Lake Irrigation Dist.

Little Wood River Irrigation Dist. Milner Low Lift Irrigation Dist. Minidoka Irrigation Dist. Mountain Home Irrigation Dist. Nampa-Meridian Irrigation Dist. New Sweden Irrigation Dist. New York Irrigation Dist. North Kootenai Water Dist. North Snake Ground Water

Dist.

Lewiston Orchards Irrigation

Orofino Cr-Whiskey Cr Water/Sewer Dist. Outlet Bay Water & Sewer Dist. Owyhee Project Sewer Board Pavette Lakes Water/Sewer Dist. People's Canal & Irrigation Co. Pinehurst Water Dist. Pioneer Irrigation Dist. Progressive Irrigation Dist. Riverside Independent Water/Sewer

Riverside Irrigation Dist. Riverside Irrigation Dist. Ltd. Roseberry Irrigation Dist. Ross Point Water Dist. Settlers Irrigation Dist. Snake River Valley Irrigation Dist.

Southside Water & Sewer Dist. Star Sewer & Water Dist. Sun Valley Water & Sewer Dist. Twin Falls Canal Co. Water Dist.#1

Water Dist.#11 Water Dist.#31 Water Dist.#32C

Water Dist.# 37 and #37M Water Dist.#37N Water Dist. #63 Water Dist. #67 Weiser Irrigation Dist. West Bonner Water & Sewer Dist. Wilder Irrigation Dist.

**Highway Districts** 

Ada County Highway Dist. Atlanta Highway Dist. Bliss Highway Dist. Buhl Highway Dist. Burley Highway Dist. Canyon Highway Dist.#4 Central Highway Dist. Clarkia Better Roads Hwy. Dist. Clearwater Hwy. Dist. Cottonwood Hwy. Dist. Deer Creek Hwy. Dist. Dietrich Hwy. Dist.#5 Downey-Swan Lake Hwy. Dist. East Side Hwy. Dist.

Evergreen Hwy. Dist. Fenn Hwy. Dist. Ferdinand Hwy. Dist. Filer Highway Dist. Fruitland Hwy. Dist. #1 Gem Hwy. Dist.

Glenns Ferry Hwy. Dist. Golden Gate Hwy. Dist. Gooding Hwy. Dist. Grangeville Hwv. Dist. Greencreek Hwy. Dist. Hagerman Hwy. Dist. Hillsdale Hwy. Dist. Homedale Hwy. Dist. Independent Hwy. Dist. Jerome Hwy. Dist. Kamiah Hwy. Dist. Keuterville Hwv. Dist. Kidder-Harris Hwy. Dist. Lakes Hwy. Dist.

Lost River Hwy. Dist. Minidoka County Hwy. Dist. Mountain Home Hwy. Dist. Nampa Hwy. Dist.

North Hwy. Dist.

North Latah County Hwy. Dist. Notus-Parma Hwy. Dist.

Oakley Hwy. Dist.

Plummer-Gateway Hwy. Dist.

Post Falls Hwy. Dist. Prairie Highway Dist. Raft River Hwy. Dist. Richfield Highway Dist.#3 Shoshone Highway Dist.#2 So. Latah County Hwy. Dist.#2 Twin Falls Hwv. Dist. Union Independent Hwy. Dist. Weiser Valley Hwy. Dist. Wendell Hwy. Dist.#6 West Point Hwy. Dist. White Bird Hwy.Dist. Winona Hwy. Dist. Worley Hwy. Dist.

**Junior Colleges and Public School Districts** 

North Idaho College College of Southern Idaho Aberdeen School Dist. American Falls School Dist. American Heritage Charter School

Another Choice Virtual Charter School

ANSER of Idaho Inc. Arbon School Dist. Avery School Dist. Basin School Dist. Bear Lake School Dist. Bingham Academy

Blackfoot Charter Com. Learning Ctr.

Blackfoot School Dist. Blaine County School Dist. Bliss School Dist.

Boise Independent School Dist.

Bonneville School Dist.

Boundary County School Dist. Bruneau-Grandview School Dist.

Buhl School Dist.

Butte County School Dist. Caldwell School Dist. Camas County School Dist. Cambridge School Dist. Canyon-Owyhee School Dist. Cascade School Dist. Cassia County School Dist. Castleford School Dist.

Challis Joint School Dist. Chief Tahgee Elem. School Clark County School Dist. Clearwater-Orofino School Dist.

Coeur d' Alene Charter Academy Coeur d' Alene School Dist. College of Western Idaho

Compass Public Charter School Cottonwood School Dist. Council Valley School Dist.

-180-

Statistical Section

Culdesac Joint School Dist. Dietrich School Dist. Emmett School Dist. Falcon Ridge Charter School Filer School Dist. Firth School Dist. Fruitland School Dist. Garden Valley School Dist. Genesee School Dist. Glenns Ferry Joint School Dist. Gooding Joint School Dist. Grace School Dist. Hagerman Joint School Dist. Hansen School Dist. Heritage Academy Heritage Community Charter School Highland Joint School Dist. Homedale School Dist. Horseshoe Bend School Dist. I Succeed Virtual Charter School Idaho Arts Charter School Idaho College and Career Readiness Academy Idaho Distance Education Academy Idaho Falls School Dist. Idaho High School Activities Idaho Science & Technology Charter School Idaho Virtual Academy Idaho Virtual Ed. Partners Inc.

Inspire Virtual Charter School Jerome School Dist. Kamiah Joint School Dist. Kellogg School Dist. Kendrick School Dist. Kimberly School Dist. Kootenai School Dist. Kootenai Bridge Academy Kootenai Tech. Ed. Campus Kuna Joint School Dist. Lake Pend Oreille School Dist. Lakeland School Dist. Lapwai School Dist. Legacy Public Charter School Lewiston Indept. School Dist. Liberty Charter School Inc. Mackay School Dist. Madison School Dist. Marsh Valley School Dist. Marsing School Dist. McCall Donnelly School Dist. Meadows Valley School Dist. Melba School Dist.

Meridian Charter HS Inc. Meridian Medical Arts Charter School Middleton School Dist. Midvale School Dist.

Minidoka County School Dist. Monticello Montessori Charter School

Moscow Charter School Moscow School Dist. Mountain Home School Dist. Mountain View School Dist. Mullan School Dist. Murtaugh School Dist. Nampa School Dist. New Plymouth School Dist. Nez Perce Joint School Dist. North Gem School Dist. North Star Charter School North Valley Academy Charter School

Notus School Dist. Oneida School Dist. Palouse Prairie Educ. Org. Parma School Dist. Payette School Dist. Pleasant Valley School Dist. Plummer-Worley Jnt. School

Pocatello Community Charter School

Pocatello School Dist. Post Falls School Dist. Potlatch School Dist. Prairie School Dist. Preston School Dist. Richard McKenna Charter HS Richfield School Dist. Rigby School Dist. Ririe School Dist. Rockland School Dist. Rolling Hills Charter School Sage International School of Boise

Salmon School Dist. Salmon River Joint School Dist. Sandpoint Charter School Shelley Joint School Dist. Shoshone School Dist. Snake River School Dist. Soda Springs School Dist. South Lemhi School Dist. St. Anthony School Dist. St. Maries School Dist. STEM Charter Academy

Swan Valley School Dist. Syringa Mountain School Taylor's Crossing Public Charter School

Teton School Dist. The Academy, Inc. The Village Charter School Three Creek School Dist. Thomas Jefferson Charter School

Troy School Dist. Twin Falls School Dist. **Upper Carmen Charter School** Valley School Dist. Vallivue School Dist. Victory Charter School Vision Charter School Wallace School Dist. Weiser School Dist. Wendell School Dist. West Ada School Dist. (Formerly

Meridian School Dist.) West Bonner County School

West Jefferson School Dist. West Side School Dist. Whitepine Charter School Whitepine Jnt. School Dist. Wilder School Dist. **Xavier Charter School** 

Bannock Planning Organization Cascade Medical Center Weiser Memorial Hospital Community Planning Assn.of SW Idaho American Falls Housing Auth. Assn. of Idaho Cities Bear Lake Regional Com. Bingham County Sr. Citizens Ctr. Blaine County Recreational Dist. Boise City/Ada Cty. Housing Auth. **Buhl Housing Authority** 

Caldwell Housing Auth. Canyon County Mosquito Abatement Dist. Capital City Development Corp. Caribou Soil Conservation Dist. Central Orchards Sewer Dist. Clearwater-Potlatch Timber Protection Assn. Coolin Sewer Dist. Dry Creek Cemetery Dist. Eagle Sewer Dist.

Sugar-Salem School Dist.



🗪 Statistical Section 🝑

Eastern Idaho Fair Board Eastern Idaho Regional Waste Water Auth.

**Edwards Mosquito Abatement** 

Ellisport Bay Sewer Dist. Foster Grandparents of SE ID Gem County Mosquito Abatement Dist.

Gem County Recreation Genesee Cemetery Dist. Gooding Cemetery Maint. Dist. Grangeville Cemetery Maint. Dist.

Greater Middleton Parks & Rec Dist.

Hagerman Cemetery Dist. Hauser Lake Fire Protection Dist.

Hayden Area Reg. Sewer Bd. Hillcrest Cemetery Maint. Dist. Housing Authority of Pocatello Idaho Bureau of Educational

Services for the Deaf and Blind Idaho School Board Assn. Idaho School District Council Idaho Crop Improvement Assn. Idaho Digital Learning Academy Idaho Public Employees Assn. Idaho Assn. of Counties Idaho Heritage Trust, Inc. Idaho Education Assn. Idaho Assn. of School Admin. Idaho County Risk Mgmt. Program Boundary County Free Library Iona Bonneville Sewer Dist. Jerome Recreation Dist. Kingston-Cataldo Sewer Dist.

Kuna Cemetary Maint. Dist. Lewiston-Nez Perce County Airport Jefferson Free Library Dist. Authority

Kootenai Metropolitan Planning

Org.

Lincoln County Cemetery Dist. Lincoln County Housing Auth. Local Highway Technical Assistance Council M-A-R Cemetery Dist. Marsing-Homedale Cemetery

Dist.

Meridian Cemetery Maint. Dist. Metro Community Services, Inc. Minidoka Soil & Water Conservation Dist. Moscow Cemetery Dist. Nampa Housing Authority

Nez Perce County Fair Board

North Fremont Cemetery Dist. North Idaho Fair Orofino Cemetery Dist. Payette Cnty. Recreation Dist. Paul Cemetery Dist. Port of Lewiston

Post Falls Urban Renewal Dist. Rexburg Cemetery Dist.

Shelley Cemetery Dist.

Southern Idaho Solid Waste Dist. Southern Valley County Rec.

Dist.

South Fork Coeur d'Alene Sewer Dist.

Targhee Regional Public Transit Authority

Twin Falls County Fair Twin Falls County Pest Abatement Dist.

Twin Falls Housing Auth. Valley Recreation Dist. of

Hazelton

Valley Regional Transit Valley Soil and Water Conservation Dist. West Boise Sewer Dist.

West End Cemetery Dist. Wilder Cemetery Dist. Wilder Housing Auth.

Aberdeen Library Dist. Ada County Free Library American Falls Free Library Bear Lake County Library

**Burley Library** 

Consolidated Free Library Dist. Council Valley Free Library Dist. East Bonner County Library Dist.

Franklin County Library Dist. Fremont County Dist. Library

Latah County Library Dist. Madison County Library Dist. Meadows Valley Public Library

Dist.

Meridian Library Dist.

North Bingham Cnty.Library Dist.

Oneida County Library Portneuf Library Dist. Prairie-River Library Dist. Priest Lake Public Library

Salmon Library Dist. South Bannock Free Library Dist. Stanley Community Library Dist. Valley of Tetons Dist. Library Bd.

West Bonner Library Dist.

Bear Lake County Fire Dist. Blackfoot Fire Dept.

Boise Fire Dept.

Buhl Fire Dept.

Burley Fire Dept.

Caldwell Fire Dept.

Canyon County Ambulance Dist.

Cascade Rural Fire & EMS

Central Fire Dist.

Coeur d' Alene Fire Dept.

Cottonwood Rural Fire Dist.

Donnelly Rural Fire Protection Dist.

Eagle Fire Protection Dist. Franklin County Fire Dist. Garden Valley Fire Protection Dist.

Gem Cnty. Fire Protection Dist.

Greater Swan Valley Fire Protection Dist.

Hagerman Fire Protection Dist. Homedale Rural Fire Protection

Idaho Falls Fire Dept. Jerome Fire Dept.

Ketchum Fire Dept.

Kootenai County Fire and

Rescue

Kootenai County Emergency Medical Svc.

Kootenai County Rescue Protection

Kuna Fire Dist.

Kuna Rural Fire Dist.

Lemhi Co. Fire Protection Dist.

Lewiston Fire Dept.

Lincoln County Emergency Svs.

McCall Fire Protection Dist.

Mica Kidd Island Fire Protect. Dist.

Minidoka County Fire Protect. Dist.

Moscow Fire Dept.

Nampa Fire Dept.

No. Ada Cntv. Fire/Rescue Vol.

No. Lakes Fire Protection Dist.

Northside Fire Dist.

Paradise Valley Fire Dist.

Payette Fire Dept.

Plummer-Gateway Fire Protect.Dist.

Pocatello Fire Dept.

Rexburg-Madison Fire Dept.

Rock Creek Fire Protect. Dist.

Sagle Fire Dist.

Saint Maries Fire Protect. Dist.

Sandpoint Fire Dept.

Schweitzer Fire Dist.

# Statistical Section

Shoshone City & Rural Fire Prot. Dist.

Shoshone Cnty. Fire Dist. #1 Shoshone County Fire Dist. #2

Shoshone Co. Fire Protection

Dist. #2

South Boundary Fire Protection Dist.

South Central Region E911

South Fremont Fire Protect. Dist.

So. Idaho Timber Protection Assn.

Spirit Lake Fire Protect. Dist.

Star Joint Fire Protect. Dist.

Teton County Fire Protect. Dist.

Timberlake Fire Protect. Dist.

Twin Falls Fire Dept.

Weiser Ambulance Dist.

Weiser Area Rural Fire Dist.

Wendell Rural Fire Dist.

West End Fire Prot. Dist.

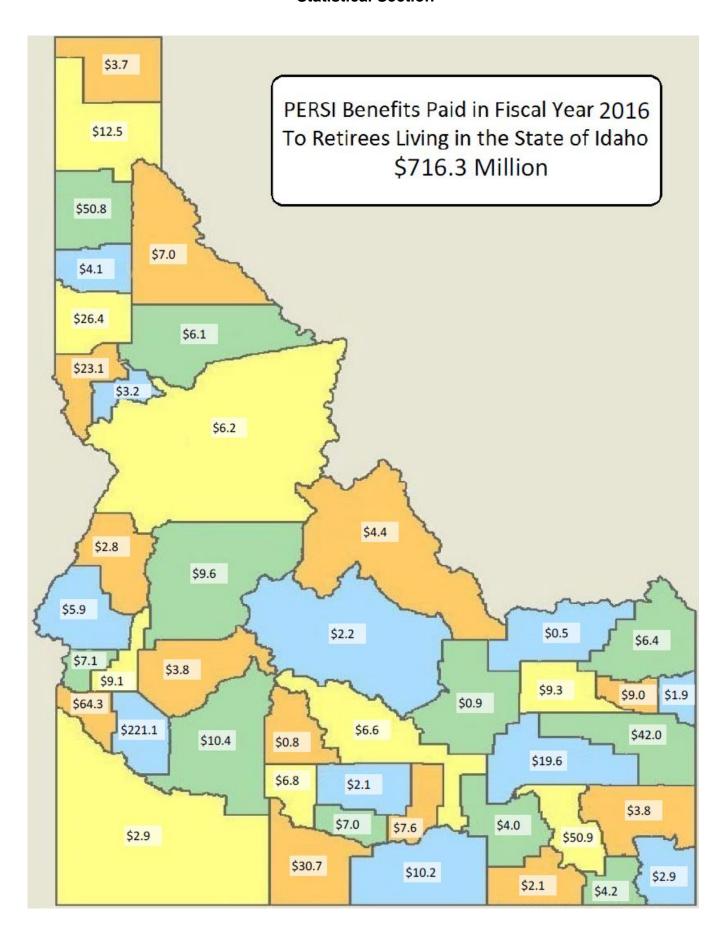
Westside Fire Dist.

Whitney Fire Protect. Dist.

Wilder Rural Fire Protect. Dist.

Wood River Fire & Rescue

Worley Fire Protect. Dist





Several publications and reports are distributed to members and employers to keep them informed about the status of their membership accounts and PERSI in general, including:

- Comprehensive Annual Financial Report
- Member Handbook
- Annual Membership Account Statement
- Remittance Advice
- Newsletters
- Brochures
- Distributions From Pensions, Annuities, Retirement or Profit-Sharing Plans, IRAs, Insurance Contracts, etc. (Form 1099R)
- Pre-Retirement Education Materials
- Reports to Legislature
- Memorandums to Employers

To receive any of these materials, contact PERSI (numbers below). Additional PERSI information can be found on PERSI's website at <a href="https://www.persi.idaho.gov">www.persi.idaho.gov</a>.

#### **PERSI Office Locations:**

#### **Boise**

Office Location: Mailing Address:
607 North 8th Street P.O. Box 83720
Boise, ID 83702 Boise, ID 83720-0078

#### Coeur d'Alene

Office Location & Mailing Address: 2005 Ironwood Parkway Suite 226 Coeur d'Alene, ID 83814

# **Pocatello**

Office Location:
Mailing Address:
1246 Yellowstone Avenue
P.O. Box 1058
Pocatello, ID 83204
Pocatello, ID 83201

## Telephone:

PERSI Answer Center (208) 334-3365 Toll-free 1-800-451-8228 Employer Service Center (208) 287-9525 Toll-free 1-866-887-9525 Choice Plan Toll-free 1-866-437-3774

